



N • S • D • C
National
Skill Development
Corporation

District wise skill gap study
for the State of
Chhattisgarh (2012-17, 2017-22)



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1 Background and Scope of Work

1.1 Background

In order to achieve the target of skilling a huge workforce in the country, the Government of India has formulated the National Skill Development Policy. The policy aims to increase the productivity of India's workforce and enhance India's competitiveness in the global market by empowering people through improved skills, qualifications and access to employment and to attract investment in the skill development sector in India.

Further, the policy envisages creation of a separate regulatory authority under the chairmanship of the Prime Minister for policy formulation and strategic review of the skill development sector in India. This led to the creation of three tier structure consisting of:

- ♦ National Council on Skill Development (NCSD)
- ♦ National Skill Development Coordination Board (NSDCB)
- ♦ National Skill Development Corporation (NSDC)

NSDC, a not-for-profit organization set up by the Ministry of Finance, under Section 25 of the Indian Companies Act, is a first of its kind Public Private Partnership (PPP) in India to fulfil the growing need in India for skilled manpower across sectors and narrow the existing gap between the demand and supply of skills.

NSDC acts as a catalyst for skill development by providing funding to enterprises, companies and organizations that provide skill training. In order to achieve its objective of skilling/ up-skilling 150 million people in India by 2022, NSDC has been working on the following three key mandates:

- ♦ Enable: (a) Facilitate creation of support systems required for skill development
(b) Develop a research base
- ♦ Create: Proactively catalyze creation of large, quality vocational training institutes
- ♦ Fund: Reduce risk by providing patient capital and improve returns by providing viability gap funding

As highlighted above, NSDC is developing a research base by conducting sector and geographic skill gap studies to assess demand-supply gaps. The research base created by NSDC is proposed to be utilized by different stakeholders such as training organizations, employers, government and trainees.

NSDC has conducted sector skill gap studies to estimate the existing skill gap for the 20 high priority sectors as identified by the Planning Commission. These studies were conducted in the year 2008-2009.

In addition to the sector skill gap studies, NSDC is now conducting district skill gap studies to understand and highlight existing and future skill gaps across sectors in all districts of a state. Through these studies NSDC envisages to identify the current and future (2012-2017 and 2017-2022) skill and manpower requirements in the ascertained priority sectors of the district, estimate the gap that exists and recommend strategies for addressing this gap.

Against this backdrop, NSDC has mandated Deloitte to undertake a district level skill gap study for the state of Chhattisgarh with the broad objective of creating an information source, which can be utilized by

- (a) Training organizations to offer their services,

- (b) The State Government in making policy level decisions and
- (c) Industry/employers for assessing options for expansion or new projects.

1.2 Scope of Work

The proposed scope of work of the study is presented below:

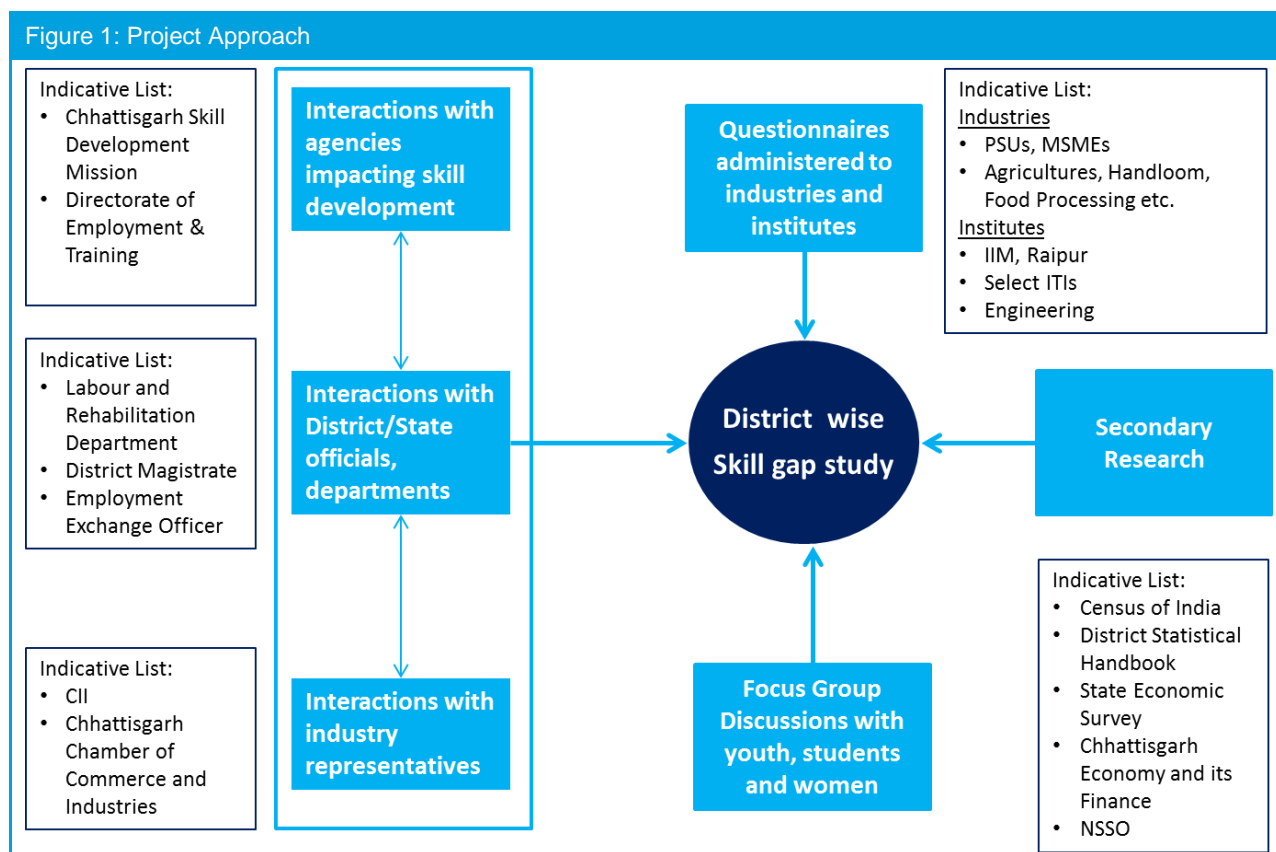
- ♦ To trace the socio-economic profile of each district by demography, economy, industry, education, etc.
- ♦ To identify developmental opportunities keeping in mind factor endowments and stakeholder perspectives
- ♦ To identify specific developmental initiatives/ projects/ government schemes which have an impact on employment generation
- ♦ To articulate the aspirations of the youth
- ♦ To identify the current and future (2012 to 2017 and 2017-2022) skills and manpower requirements by industry and estimate the gap that exists
- ♦ To study the existing vocational training (VT) infrastructure both in the private sector and the government domain
- ♦ To suggest suitable interventions/recommendations to address the skills gap
 - To recommend specific and actionable measures
 - To suggest specific initiatives that NSDC can take based on the mandate of the organization
- ♦ To create an action plan with indicative timelines

This report outlines the approach and methodology used to conduct the study and presents the state and district profiles highlighting the demography, education, employment profiles and future growth opportunities, skill gap assessment and recommendations for the key stakeholders to improve the skill development and employment situation in each district.

2 Approach and Methodology

2.1 Project Approach

Our team has adopted a consultative and participatory approach to fulfil the requirements of the study. Our approach is significantly based on interaction with the key stakeholders, aided by focused secondary research utilizing various government publications, our own database and other sources available in the public domain. The approach involved a comprehensive assessment of the skill requirement in the state and for each district, assessing the requirements from both a demand side as well as supply side perspective, as indicated in the figure below:



As indicated above, our proposed approach for the study comprises of the following:

- Interactions with key stakeholders:** Various stakeholders including (a) state government officials such as District Planning Officer, General Manager, DIC, Employment Exchange Officer etc. (b) representatives from industry associations and (c) agencies impacting skill development in the state would be consulted for their inputs in line with the discussion agenda. The interactions with the above stakeholders were conducted at the locations to be covered as part of the study. List of key officials met/interacted with is enclosed in Annexure 5.1.
- Obtaining feedback from industry and training institutes:** Questionnaires were administered to a selected sample of government officials, industry players/ companies and training institutes. We emphasized to select a sample which is representative of the industrial and training landscape of the

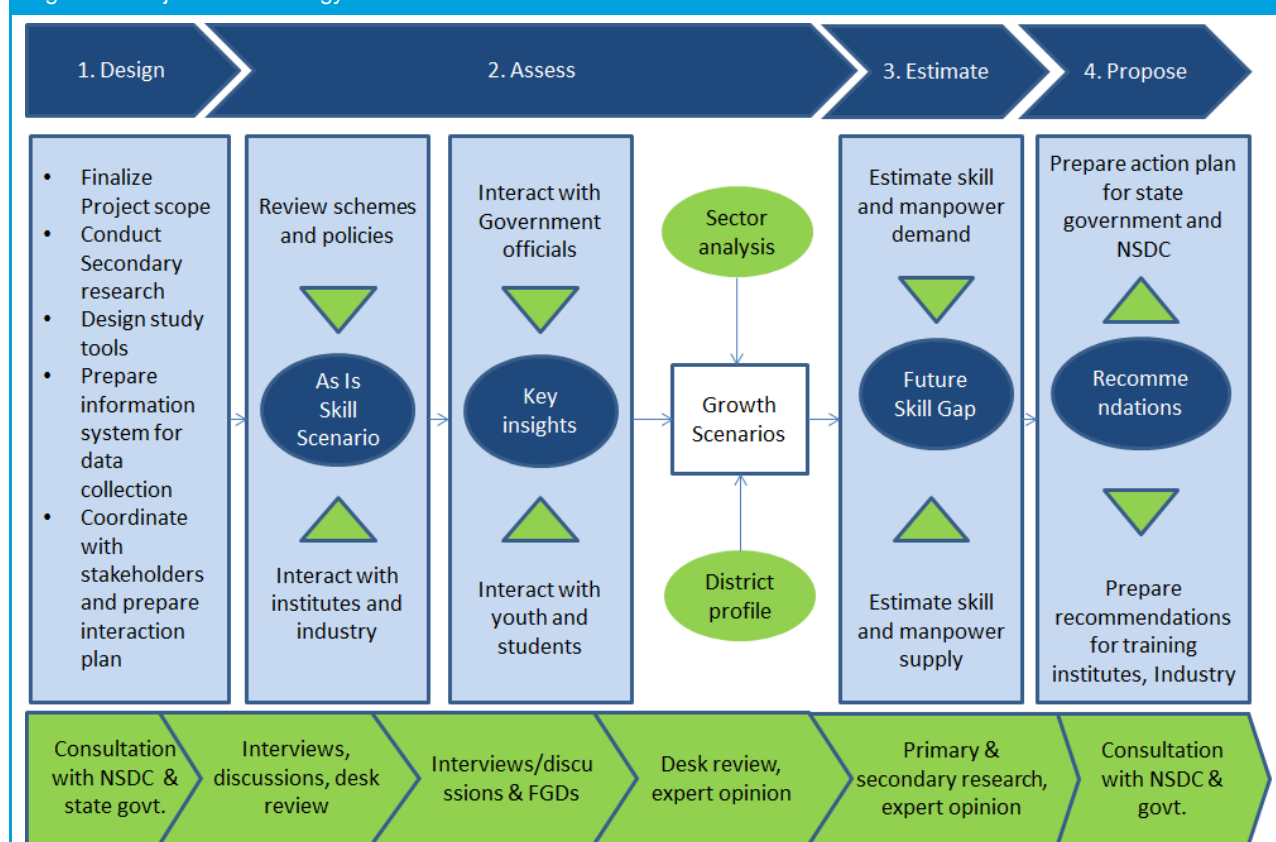
state. Based on the responses to the questionnaires, we would be able to estimate current and future skill demand and supply in the districts of Chhattisgarh. List of personnel's from key industry and industry association met is enclosed in Annexure 5.2 and key training institutes is enclosed in Annexure 5.3.

- ♦ **Capturing voice of the youth:** Youth surveys and Focus group discussions (FGDs) were held in each district involving a total of around 100-150 participants including students, recent alumni of the various educational institutes, youth (educated and unemployed) and from rural areas as well. The key objectives of the FGDs will be to: (i) assess student and youth aspirations, (ii) understand satisfaction with current skill enhancement programmes and (iii) find out expectations from the education and training system. The FGDs will help in identifying themes like preferred sectors, wage expectations, readiness to migrate etc. Youth survey and list of FGD details is mentioned in annexure 5.4.
- ♦ **Secondary Research and Literature survey:** Data collected from the above primary interactions would be analyzed in light of secondary data available in public domain like Census of India reports, NSSO reports, Economic Reviews, Directorate of Economics and Statistics reports etc. Desk research and opinion of subject matter experts on skill development were incorporated for evaluating strategic options developed during propose module.

2.2 Project Methodology

Based on our understanding of the scope of work, we adopted the project methodology for the study to comprise four distinct phases as outlined in the figure below.

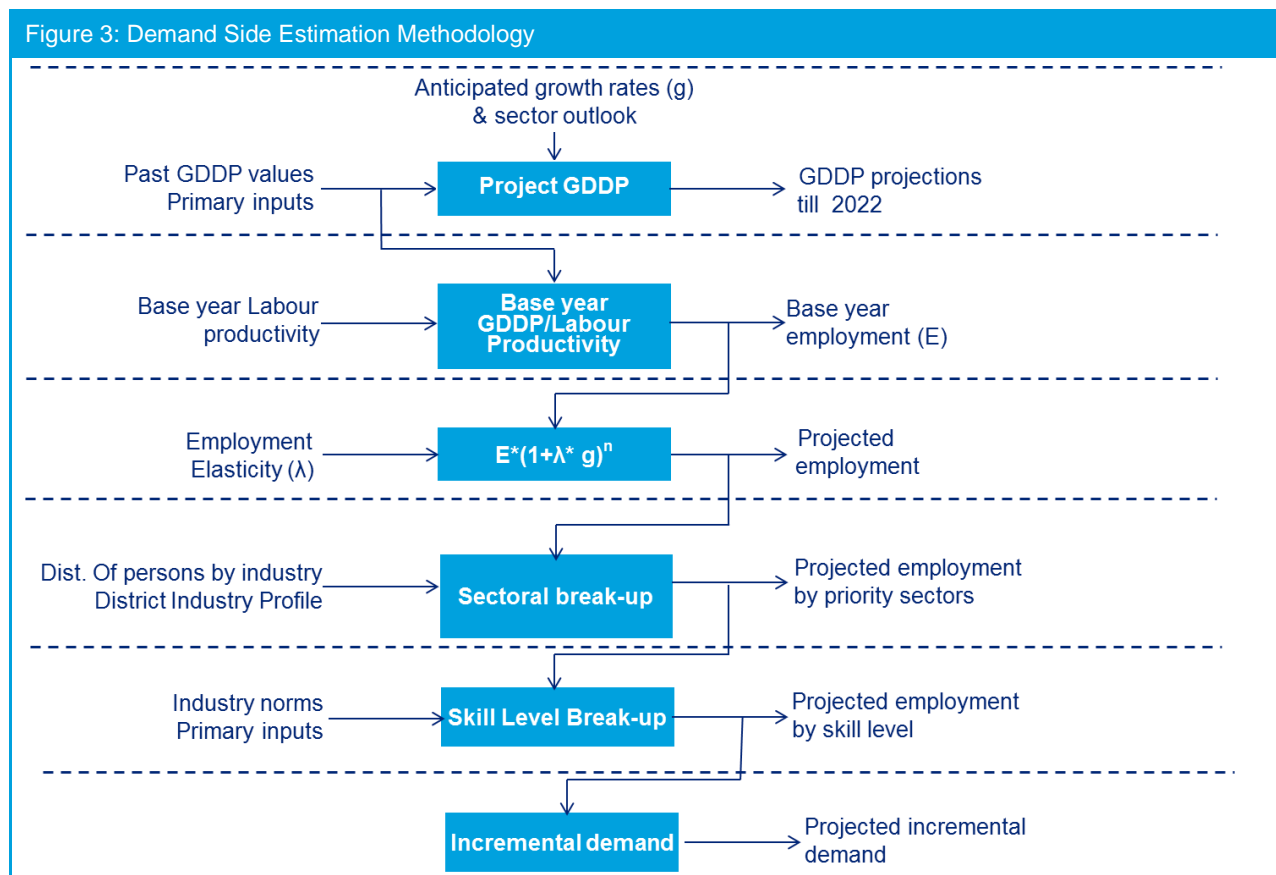
Figure 2: Project Methodology



The keys steps followed as part of the methodology are given below.

2.2.1 Demand side estimation

Demand estimation was done with the objective of determining the incremental demand by skill level (skilled, semi-skilled and minimally skilled). The following figure depicts the overall methodology taken for demand side estimation



The following were the eight steps used for Demand estimation

1. Determine anticipated GDDP growth rates by economic sub-sectors at district level for 2012-22

- DDP data of each economic sub-sector was first projected using trend to identify Growth rate for 2012-22 based upon historical growth of all sub-sectors
- Growth rates were then revised based on the current and future investments and primary inputs at district level, to arrive at anticipated growth rate for 2012-22 for each of the economic sub-sectors
- Using the anticipated growth rates from above, the GDDP for each of the economic sub-sectors has been projected for the period 2012-22.

2. Estimate Base year employment across the sub-sectors

- Total no. of workers in each economic sub-sector sector (agriculture and allied activity, Mining & Quarrying, Manufacturing etc.) is calculated using WPR (2010) and population data
- Where NIC-2004 classification data is not available in NSSO, No. of workers is split across economic sub-sectors by using assumption of constant output per worker within that sub-sector

- Output per worker is calculated using GSDP data divided by number of workers in that sub sector
- Base year employment estimated using the base year GDDP and Output per worker as calculated above

3. Estimate sector wise employment elasticity and project employment by economic sub-sectors

- Total no. of workers in each economic sub-sector sector is calculated using WPR and summed up for 1999-00 and 2009-10
- No. of workers is split across sub-sectors where NIC-2004 classification data is not available, by using assumption of constant output per worker within sub-sectors
- Growth rate in employment and growth rate of GSDP between 1999 and 2010 is calculated, and the ratio of the two gives employment elasticity for the state
- Estimated no. of workers for the period for each sub-sector is projected by multiplying base year employment number with anticipated GDDP growth rate and employment elasticity

4. Projected employment by priority sectors for the period 2012-22

- Aggregate manpower in Manufacturing was split into various sub-sectors using the industrial profile shared by MSME-DI for the district
- For splitting the manpower in the following sectors – Trade Hotels & Restaurants, Real Estate Ownership of Dwellings Business Services & Legal and Public Administration – NIC 2004 mapping and shares as given in NSS report was used
- Some sectors provided by MSME-DI for which NSDC sector mapping was not possible have been retained into “other manufacturing” and “other services”

5. Projected employment by skill levels

- Based upon the primary interactions with industry representatives, Government officials and literature survey, the sector level incremental demand is distributed into various skill levels (skilled, semiskilled & minimally skilled)
- Skill Mapping applied on demand to get Min. skilled, semi-skilled and skilled labour break-up

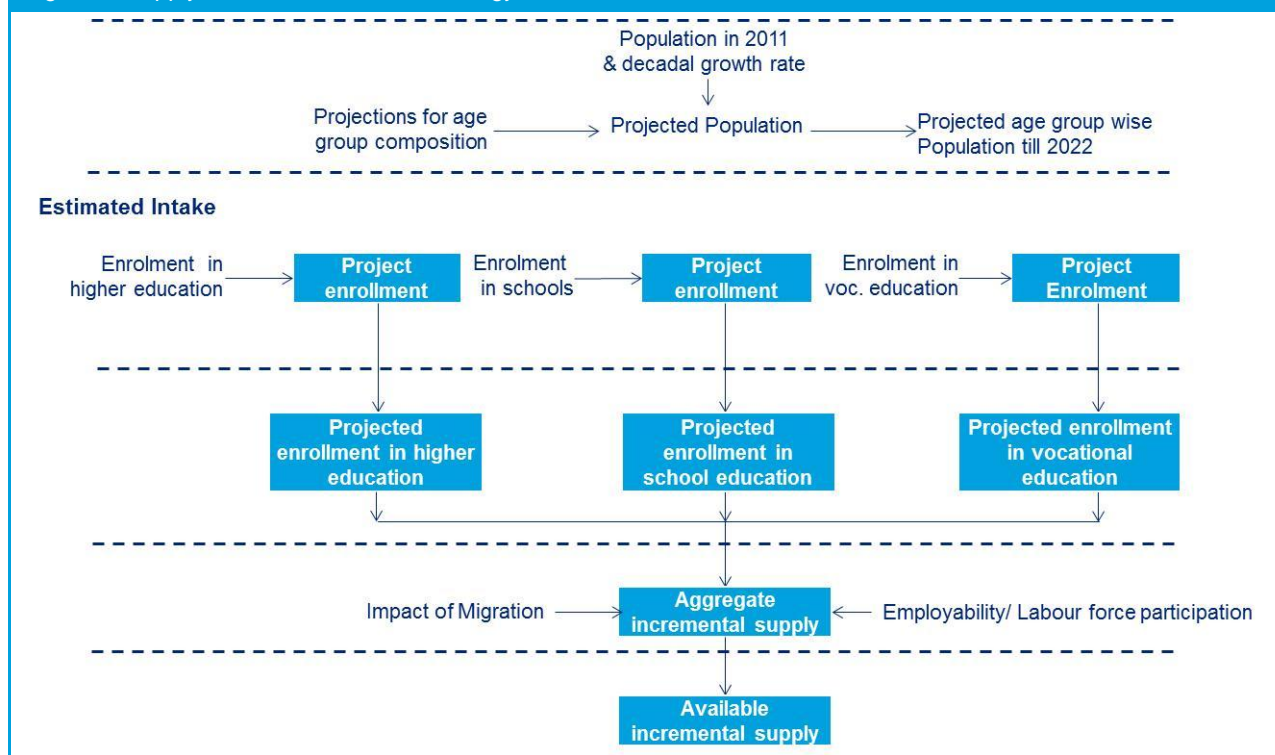
6. Sector level incremental manpower demand

- Incremental demand has been calculated for each year from the data above.

2.2.2 Supply side estimation

Supply estimation was done with the objective of determining the incremental supply by skill level (skilled, semi-skilled and minimally skilled). The following figure depicts the overall methodology taken for supply side estimation.

Figure 4: Supply Side Estimation Methodology



The following were the steps used for Supply side estimation

1. Projected district population by age group till 2022

- Population of the district has been projected till 2022 based on the population projected from the population projection reports (Census)
- Population estimated in the working age group (15-59), and for specific age groups required for further analysis (15, 16, 17, 18-23 etc.)

2. Estimate of Incremental Skilled Labour Force in the district

- Total number of students enrolled by courses/ streams and level (UG/ PG) and annual enrolment determined at state level
- Share of students enrolling per year by level & course estimated for district based on the share of colleges for the specific streams in the district
- Estimated No of Students Enrolled in District calculated by course and level for period 2012-22
- Estimated No of Students Passing out in the district calculated by course and level for period 2012-22
- Supply of students from all colleges in District estimated using estimated transition rates for state
- Students who are failing from PG level are added back into the graduate level of skilled workforce
- Total skilled workforce and incremental skilled workforce calculated

3. Estimate of Incremental Semi-Skilled Labour Force in the district

- ♦ Seating capacity of ITI/ITC is calculated for district; Seating capacity and enrollment rates calculated based on historical data and primary inputs on future trends
- ♦ Total Students enrolling in ITI's & ITC's per year calculated for period 2012-22
- ♦ Total Students passing out from ITI's & ITC's every year calculated taking estimated pass percentage
- ♦ Total Students passing out from ITI's & ITC's and not going to higher education is estimated
- ♦ In case of Post School Diploma, it is taken from the calculations done in the skilled workforce calculations (as it is considered in the GER, whereas ITI/ ITC are not)
- ♦ No. of estimated students dropping out of UG courses and those who complete 12th and not going in for higher education is added to semi-skilled workforce
- ♦ Total and incremental semi-skilled workforce is calculated by totaling the above

4. Estimate of Incremental Minimally-Skilled Labour Force emerging out of vocational institutions in the district

- ♦ Total students enrolled in Grade I estimated for period 2002-15
- ♦ Drop-out rate from class I to VIII applied to get total students who have dropped out prior to class VIII and will enter workforce (age 15) each year from 2012-22
- ♦ Similarly drop-outs from VIII-X, X, XI and XII estimated for each year for period 2012-22 and corresponding no. of students entering workforce estimated
- ♦ Total estimated number of students enrolling in ITI, ITC & Post School Diploma deducted from the above
- ♦ Pass-out rates at each successive level applied for X, XI and XII applied to calculate number of students passing into higher classes
- ♦ No. of students failing at UG and ITI/ ITC are added back into min. skilled workforce

5. Aggregate and Incremental manpower supply

- ♦ In all the three calculations above, Incremental manpower supply is estimated as a difference of available labour force in successive years,
- ♦ Break-up of males and female students calculated for the above

6. Application of LFPR on incremental supply

- ♦ The ratio of enrolment by gender for each skill level (Skilled, semi-skilled and minimally skilled), is taken and applied on the total number of incremental workforce to get male: female break-up
- ♦ The male and female LFPRs (for 25-34 age group) is applied on each of the above to find out the total supply

7. Estimate migrants in district available for work by skill level

- ♦ Net migrants within state from/ to other states, country who have migrated for employment estimated
- ♦ Share of employment in district to state enumerated; Total migrants for employment above are split in the corresponding ratio.
- ♦ Net migrants within state from/ to other states, country who have migrated for marriage estimated, and LFPR applied on the same (rural/ urban, male/ female) to estimate those who are available for work
- ♦ Share of Population in each district enumerated; Total migrants for marriage and available for work are split in the corresponding ratio.
- ♦ Share of migrants (from above two categories) relative to total working age population of district (15-59) who are available for work estimated

- ♦ Incremental population in the 15-59 age group estimated for each year for period 2012-22
- ♦ Share of migrants applied on incremental population to get total number of incremental migrants per year
- ♦ Total migrants split by skill level (skilled, semi-skilled and min. skilled) for each year

8. Total Available Incremental Supply by skill level

- ♦ To the incremental supply by skill level achieved from step 6, add/ subtract the incremental migration numbers to arrive at the total incremental supply by skill level for each year

2.2.3 Demand - Supply gap estimation

Taking the incremental demand and supply from the calculations as explained above, the demand-supply gap is then arrived at by skill levels.

3 Chhattisgarh- State Profile

3.1 Demography

The state of Chhattisgarh was formed on 1st November 2000 by carving out the 16 Chhattisgarhi-speaking south-eastern districts of Madhya Pradesh. It covers an area of about 135,190 sq. km. which is 4.1% of the country's area. Chhattisgarh is a land locked state bordered by Madhya Pradesh in the north-west, Maharashtra in the south-west, Andhra Pradesh in the south, Odisha in the east, Jharkhand in the north-east and Uttar Pradesh in the north. Administratively, the state comprises of 27 districts, which is further divided into 149 blocks and 9734 gram panchayats.

High Forest Area Cover¹: According to the Ministry of Environment & Forest, Government of India, the recorded forest area in Chhattisgarh is 59,772 sq. km. covering around 44.21% of the state's geographical area which is much higher than the national average. Approximately 43% of the recorded forest area in the state is classified under reserved forests, while 40% of it is deemed the status of protected forest. 17% of the forest area in the state is unclassified forest.

Map 1: Chhattisgarh State



Table 1: Geographic Indicators of Chhattisgarh

#	Indicator	Chhattisgarh	India	% Share
1.	Area, in sq.km.	135,190	32,87,263	4.1
2.	No. of districts	27	640	4.2
3.	No. of inhabited villages	20126	640867	3.1
4.	No. of households (lakhs)	56.51	2466.93	2.3
5.	Forest area cover ² (2011)	41.18%	21.06%	-

Source: Census 2011; Dir. of Economics & Statistics Govt. of Chhattisgarh; State of Forest Report 2011-Forest survey of India

¹ Recorded Forest Area refers to all the geographic areas recorded as 'forests' in government records. It largely consists of Reserved Forests (RF) and Protected Forests (PF), which have been constituted under the provisions of the Indian Forest Act, 1927.

² Forest Area Cover includes all lands which have a tree canopy density of more than ten percent when projected vertically on the horizontal ground, with a minimum areal extent of one hectare.

As per census 2011, Chhattisgarh has a total population of 2.56 crores amounting to 2.1% of India's population and ranks 16th amongst all the states in India in terms of population. As indicated in the table below, the population density of the state is much lower than the national average.

High Decadal Population Growth Rate: According to Census 2011, Chhattisgarh state exhibited a high decadal population growth rate (22.61%) as compared to the national average (17.6%). The state ranked 6th in terms of decadal population growth rate over the period 2001-11. While Kabirdham district (40.66%) showed the highest population growth rate in the state over the decade, Bijapur district (8.76%) registered the lowest growth.

High Sex Ratio: As indicated in the table below, Chhattisgarh has a sex ratio of 991 which is greater than the national average (943). It ranks 4th in the country amongst all the states after Kerala (1048), Tamil Nadu (995) and Andhra Pradesh (992) in terms of sex ratio. Bastar district registered the highest sex ratio at 1024 while Korba & Koriya districts have the lowest sex ratio at 971.

High Tribal Population: The state has a high tribal (30.6%) population. Bastar (Gond, Abujmaria, Bisonhorn Maria, Muria, Halba, Bhatra, Parja, and Dhurvaa), Dantewada (Muriya, Dandami Mariya or Gond, Dorla, Halba), Koriya (Kol, Gond, and Bhunjia) and Korba (Korwa, Gond, Rajgond, Kavar, Bhaiyana, Binjwar, and Dhanwar) are the chief tribal dominant districts in the state.

Table 2: Demographic Indicators of Chhattisgarh

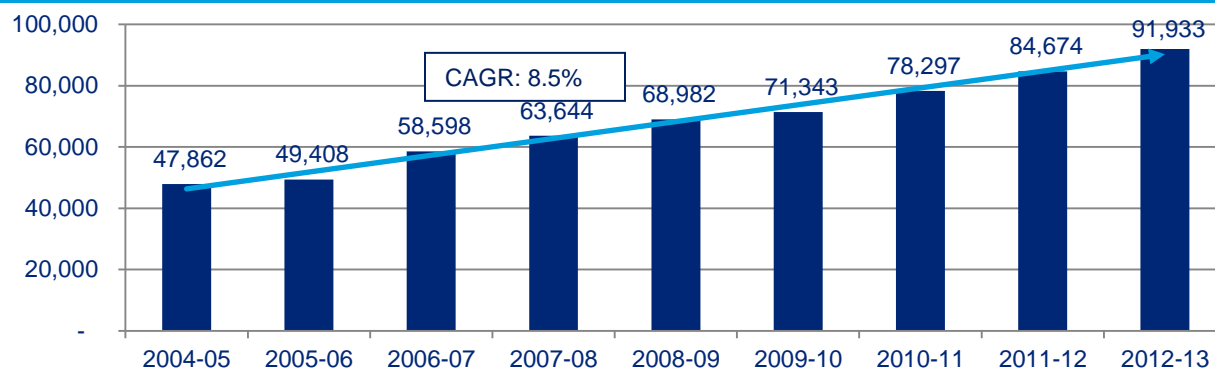
Demography	Chhattisgarh	India
Population - Cr. (2011)	2.56	121.06
Decadal Population Growth Rate (2001-11)	22.6%	17.6%
Population density per sq. km (2011)	189	382
Percentage of Urban Population (2011)	23.2%	31.2%
Percentage of Rural Population (2011)	76.8%	68.8%
Percentage of SC population (2011)	12.8%	16.6%
Percentage of ST population (2011)	30.6%	8.6%
Average household size	4.54	4.82
Sex Ratio (2011)	991	943
Working age population (15-59) as a percentage of total population, %	60.08%	60.52%
Per Capita Income (2012)	29,635	38,005
Source: Census of India 2011; Directorate of Economics and Statistics- Govt. of Chhattisgarh		

3.2 Economic Profile

Strong and consistent growth

The economy of Chhattisgarh has registered a CAGR of about 8.5% (estimated at constant prices, 2004-05) between 2004-05 and 2012-13 and grown from Rs. 47, 862 cr. to Rs 91,933 cr.³

Figure 5: Chhattisgarh GSDP 2004-05 to 2012-13 at constant prices (2004-05) in Rs. cr.

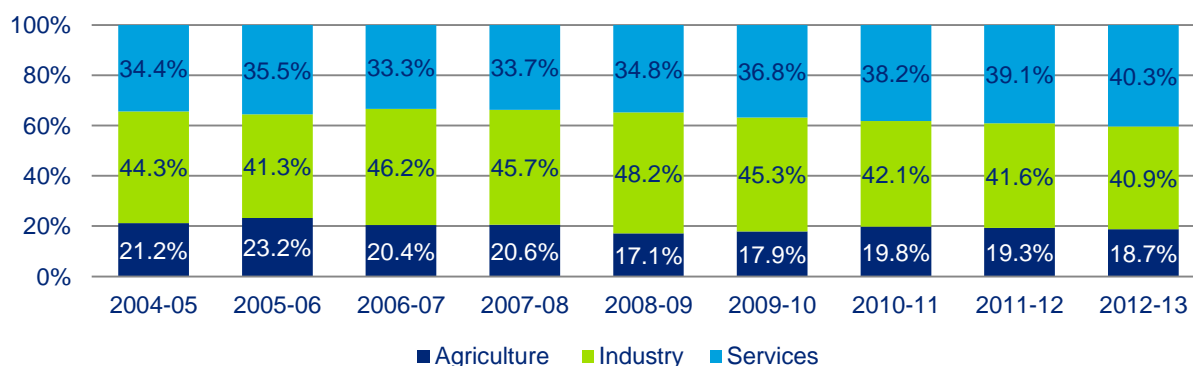


Source: Central Statistical Organisation (CSO) State Series (As on 01.08.2013), 2004-05 base prices

Industries based economy

The economy of Chhattisgarh is pre-dominantly Industry sector based, with Industries' share in GSDP being 40.9% in 2012-13. This is followed by Services sector with 40.3% share in the GSDP and the Agriculture sector at a share of 18.7%. In terms of sector level contribution to GSDP, the contribution of Agriculture sector in the state economy is declining and has declined from 21% in 2004-05 to approximately 19% in 2012-13, as indicated in the figure below. Similarly, the contribution of Industry has also reduced from 44% to around 41% between the same time periods. However, it is important to note that there has been an increase in the contribution of Services sector to the Gross State Domestic Product with the share increasing from 34% to 40%, primarily due to increased contributions from sectors such as Transport, Storage and Communication and BFSI. The Services sector has shown the highest growth rate in the state over the period 2005-2013 with a CAGR of 10.7% followed by Industry and Agriculture sectors which registered a CAGR of 7.4% and 6.8% respectively.

Figure 6: Sectoral Share of GSDP, 2004-05 to 2012-13

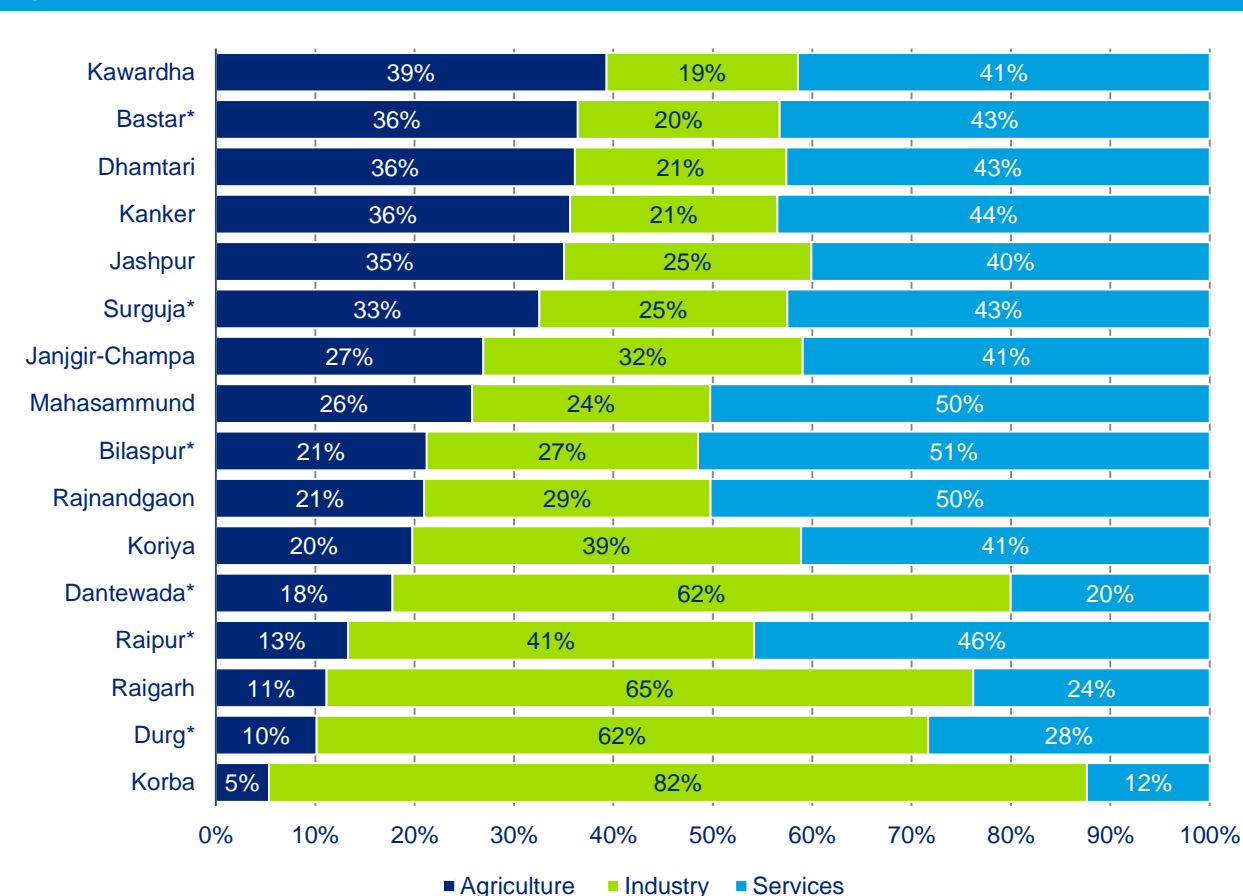


Source: Central Statistical Organisation (CSO) State Series (As on 01.08.2013), 2004-05 base prices

³ Central Statistical Organization (CSO)

The state per capita income (estimated at 2004-05 constant prices) has increased from Rs. 24,690 in 2009-10 to Rs. 29,635 in 2011-12 registering 20% increase over the period 2009-12; however it is still lower than the national average of Rs. 38,005 during 2011-12⁴. The district's economy in Chhattisgarh was primarily supported by the Industry and Services sector with these sectors assuming the maximum share in the GDDP of all the districts in the year 2008-09. The Services sector was the major economic contributor to the district economy across majority of the districts, followed by Industries. Korba, Raigarh, Durg* and Dantewada* were the only districts in the state where economic growth was driven by Industries and its sector share was higher than services.

Figure 7: District wise sectoral breakup of GDDP (2004-05 base price), 2008-09



*Combined districts (Gross District Domestic Product data available till 2008-09)

Source: Directorate of Economics & Statistics, Chhattisgarh

District-wise comparison of economic contribution in 2008-09 indicates that the districts of Durg*, Raipur*, Korba, Raigarh and Bilaspur* are the top 5 districts in terms of contribution to the Gross State Domestic Product. While Durg district (Rs 14, 67,781 lakhs) was the highest contributor to the state economy, followed by Raipur (Rs 11, 33,580 lakhs) and Korba (Rs 9, 57,566 lakhs); Kabirdham district (Rs. 1, 00,506 lakhs) contributed the least to the state economy. The top 5 districts namely Durg*, Raipur*, Korba, Raigarh & Bilaspur*, contributed around 67.5% of the state economic activity in the year 2008-09.

⁴ <http://pbplanning.gov.in/pdf/Statewise%20GSDP%20PCI%20and%20G.R.pdf>

It is to be noted that these 5 districts are also amongst the most populous districts of Chhattisgarh as well.

The largest sector of each of the district (as per the % contribution to the GDDP) in the year 2008-09 is highlighted in the table below.

Table 3: District wise Largest Sectors in terms of contribution to the GDDP

S#	Sector	Districts
1	Agriculture	None
2	Industry	Korba, Durg ⁵ , Raigarh, Dantewada ⁶
3	Services	Raipur ⁷ , Surguja ⁸ , Jashpur, Janjgir-Champa, Bilaspur ⁹ , Kawardha, Rajnandgaon, Mahasamund, Dhamtari, Kanker, Bastar ¹⁰ , Koriya

Kawardha (39%), Korba (82%) and Bilaspur* (51%) districts received the highest sectoral contribution from the Agriculture, Industry and Services sectors respectively in 2008-09.

3.2.1 Agriculture Sector

The Agriculture sector (agriculture, forestry & logging and fishing) grew at a CAGR of 6.8% between FY05 & FY13, however, the overall contribution of the sector declined from 21.2% in 2004-05 to 18.7% of the GSDP in 2012-13. In the year 2012-13, agriculture comprised 75% of the overall contribution of Agriculture sector, followed by forestry & logging (18%) and fishing (7%). Agriculture and forestry & logging together account for approximately 93% of the economic activity in the Agriculture sector.

Figure 9: Agriculture Sector GSDP (2004-05 to 2012-13) in Rs. Crore

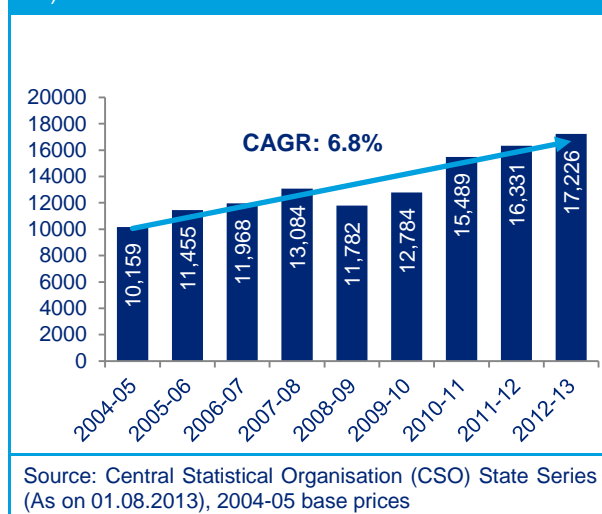
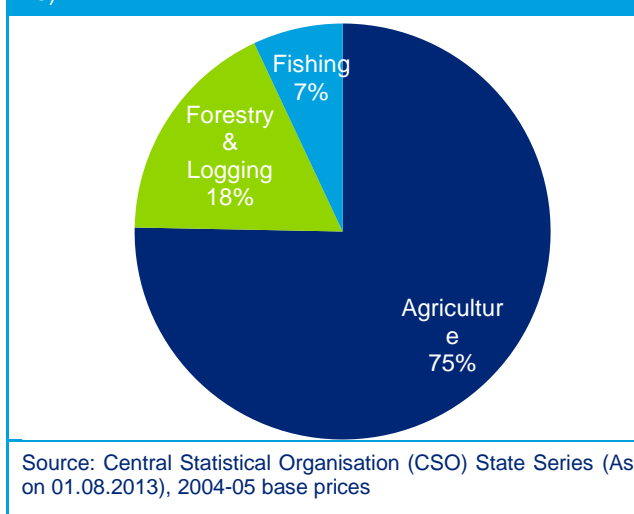


Figure 8: Sector wise Share of Agriculture Sector (2012-13)



⁵ Durg includes current Durg, Bemetara & Balod

⁶ Dantewada includes current Dantewada, Sukma & Bijapur

⁷ Raipur includes current Raipur, Baloda Bazar & Gariaband

⁸ Surguja includes current Surguja, Balrampur & Surajpur

⁹ Bilaspur includes current Bilaspur & Mungeli

¹⁰ Bastar includes current Bastar, Kondagaon & Narayanpur

Agriculture and Allied Activities

Majority of the state's population is dependent on agriculture and allied activities like fishing and forestry & logging. The agriculture and allied activities (agriculture, forestry & logging, fishing) together contributed 18.7% to the GSDP in 2012-13 and the share has been declining over the years, compared to 21.2% contribution in 2004-05.

Agriculture – Chhattisgarh is an agriculture dominant state in terms of employment. However, in terms of economic contribution, the agriculture sub-sector contribution amounted to Rs. 12,972.8 Cr. in 2012-13. The sub-sector grew at a CAGR of around 8% between 2004-05 and 2012-13. Out of the total geographical area of 137.9 lakh hectares, gross cropped area of the state in the year 2011-12 is 56.7 lakh hectares and net sown area is 46.97 lakh hectares¹¹. The net irrigated area of the state is 13.2 lakh hectares which is 28% of the net sown area. Kharif is the main cropping season in Chhattisgarh. Paddy is the predominant crop of the state. Other important crops are maize, wheat, groundnut and pulses. On the basis of climate & topography, the state is divided into three major agro climatic zones.

Table 4: Agro climatic Zones of Chhattisgarh

S#	Agro Climatic Zone	Districts	Soils
1	Northern Hills	Comprising of Surguja, Koriya & Jashpur Districts	<ul style="list-style-type: none"> ♦ Hilly soils ♦ Tikra ♦ Goda chawar ♦ Bahara
2	Chhattisgarh Plains	Comprising of Bilaspur, Raipur, Janjgir-Champa, Raigarh, Rajnandgaon, Kawardha, Durg, Mahasamund, Dhamtari, Korba and parts of Kanker	<ul style="list-style-type: none"> ♦ Bhata (Lateritic) ♦ Matasi (Sandy loam) ♦ Dorsa (clay loam) ♦ Kanhar (clay)
3	Bastar Plateau	Comprising of Bastar, Dantewada, Bijapur & Narayanpur districts and a part of Kanker (excluding Charama, Narharpur & Kanker Blocks).	<ul style="list-style-type: none"> ♦ Marhan (coarse sandy) ♦ Tikra (sandy) ♦ Mal (sandy loam) ♦ Gabhar (clay & clay loam)

Source: Chhattisgarh Agriculture Department (http://agridept.cg.gov.in/agriculture/intro_of_agri.htm)

Presence of varied agro-climatic zones in the state enables cultivation of various crops in different parts of the state. Key highlights of the status of agriculture in 2011-12 in the state are indicated below¹²:

- ♦ Out of the total net sown area of 46.97 lakh hectares, around 21% (9.8 lakh hectares) is double cropped with the remaining area under mono cropping (79%).
- ♦ 81% of gross cropped area in the state is under Kharif cultivation while 19% is under Rabi cultivation.
- ♦ 94% of the gross cropped area in the state is under food crops with only 6% under the non-food crops (oilseeds, fibre crops etc.). Paddy farming accounts for 69% of total gross cropped area of the state.
- ♦ Out of the gross cropped area of 56.7 lakh hectares, cereals have the highest area (76%), followed by pulses (15%) and oil seeds (5%).
- ♦ Out of the total cropped area under food grains (53.6 lakh ha), paddy farming has the highest area (73%), followed by lakh tiwda (pulse) cultivation (6.7%) and gram (pulse) cultivation (4.7%) Chhattisgarh contributes about 6.5% of the total rice production in India (as of 2010-11)¹³

¹¹ Chhattisgarh At A Glance (2011), Directorate of Economics & Statistics, Chhattisgarh

¹² Ibid.

¹³ All India Rice Exporters Association- State-wise rice production 2010-11

- ♦ Mono cropping of rice is predominant in Chhattisgarh with lathyrus, linseed and chickpea being the other major crops grown in the state as relay crops (Utera)¹⁴.
- ♦ The following districts have been identified as National Food Security Mission (NFSM) districts in Chhattisgarh for Rice and Pulses. No district has been identified as NFSM district for Wheat.

Table 5: NFSM Districts in Chhattisgarh for Rice & Pulses

Rice	Pulses
Dantewada, Janjgir-Champa, Jashpur, Kawardha, Korba, Koriya, Raigarh, Raipur, Rajnandgaon, Surguja	Bastar, Bijapur, Bilaspur, Dantewada, Dhamtari, Durg, Janjgir-Champa, Jashpur, Kanker, Kawardha, Korba, Koriya, Mahasamund, Narayanpur, Raigarh, Raipur, Rajnandgaon, Surguja
Source: http://nfsm.gov.in/	

The table below presents an overview of the important crops in the state and corresponding key districts.

Table 6: Area under cultivation and total production of the Key Crops in Chhattisgarh

Crop	Gross Area under Cultivation (000' ha), 2011-12	Total Production (000' MT), 2011-12	Key Districts (In terms of area under cultivation)
Paddy (including summer paddy)	3938	6638	Raipur, Durg, Bilaspur, Surguja, Janjgir-Champa
Pulses	878	549	Durg, Bilaspur, Rajnandgaon, Raipur, Kawardha
Oilseeds	309	201	Surguja, Durg, Kawardha, Jashpur, Rajnandgaon
Wheat	104	122	Durg, Surguja, Rajnandgaon, Bilaspur, Raipur
Source: Chhattisgarh Agriculture Department (http://agridept.cg.gov.in/agriculture/kharif.htm , accessed on 16.02.2014) & Chhattisgarh At A Glance (2011), Directorate of Economics & Statistics, Chhattisgarh			

With increased double cropped areas, greater diversification of cropping pattern and better management of water resources, the potential of the sector in the state can be realized over the next decade.

Horticulture - Horticulture plays an important role in the livelihood security of the farmers by providing perennial source of income as well as food security. Being a cash crop, horticultural produce is gaining popularity amongst the farmers in the state. The total area under horticulture in the state during 2011-12 was 6.40 lakh ha.¹⁵ Key highlights on major horticultural produce in the state are given below¹⁶:

Table 7: Key Horticultural Produce in the state

#	Particular	Major Produce with % cropped area under respective crop	Total Area (Lakh Ha), 2011-12	Production (Lakh MT), 2011-12
1	Vegetables	Tomato (13%), Potato (11%), Lady Finger (8%), Brinjal (8%), Cauliflower (5%), Cabbage (4%), Onion (3%), Pumpkin (2%)	3.51	45.82
2	Fruit Crops	Mango (30%), Cashew-nut (12%), Banana (9%), Papaya (6%), Litchi (2%). Additionally, Cheku, Sitafal, Bael, Ber are also cultivated in the state.	1.85	15.69

¹⁴ http://nhm.nic.in/ActionPlan/ActionPlan_Chhattisgarh.pdf

¹⁵ Directorate of Horticulture, Chhattisgarh (<http://cghorticulture.gov.in/aboutus.htm>)

¹⁶ *ibid.*

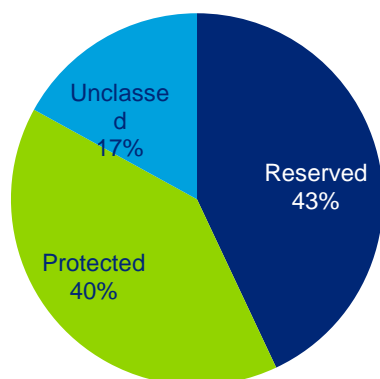
#	Particular	Major Produce with % cropped area under respective crop	Total Area (Lakh Ha), 2011-12	Production (Lakh MT), 2011-12
3	Spices	Chili (41%), Coriander (17%), Ginger (12%), Turmeric (11%), Garlic (5%)	0.83	5.41
4	Flowers	Marigold (24%), Rose (13%), Guldawadi (3%). Additionally, Jasmine, Gladiolus, Gaillardia, Orchids and Chrysanthemum are also cultivated in the state.	0.08	0.32
5	Aromatic & Medicinal Plants	Medicinal Plants: Mushli (3%), Ashwagandha (1%). Additionally, Serpagandha, Satawar, Butch, Aonla, Tikhur are also cultivated in state. Aromatic Plants: Lemongrass, Pamarosa, Jamarosa, Patchauli, E. Citridora	0.01	0.91

Source: Directorate of Horticulture, Chhattisgarh

In order to augment and promote the production of horticultural crops in the state, various schemes for development of fruits, vegetables, spices, flowers and medicinal plants are being implemented by the Horticulture Department. Development and promotion of Horticulture as an economic activity in the state would ensure year-round employment to the farmers apart from providing a perennial source of income. It would also help in promotion of allied industries in the state like processing, packaging and export thus providing adequate employment opportunities to the unemployed.

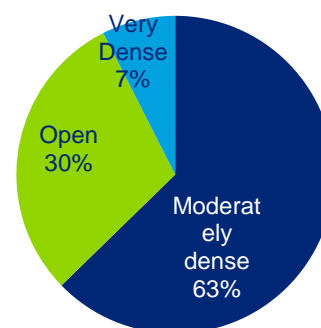
Forestry and Logging – Economic output from Forestry and Logging activities amounted to Rs 3,050 Cr. in 2012-13. The sector registered a nominal growth rate over the period 2004-05 and 2012-13 growing at a CAGR of 2%.

Figure 10: Break-up of Recorded Forest Area, Chhattisgarh



Source: State of Forest Report, 2011-Forest Survey of India

Figure 11: Break-up of Forest Area Cover, Chhattisgarh



Source: State of Forest Report, 2011-Forest Survey of India

The state ranks 8th in the country in terms of recorded forest area (**44.21%**) as compared to the state's geographical area¹⁷. In terms of forest cover, the state ranks 11th in the country¹⁸. Being placed in the Deccan bio-geographical area, the state is endowed with Tropical Moist Deciduous forest (48%) and Tropical Dry Deciduous forest (52%). The forests of Chhattisgarh can be categorized as **Teak, Sal, Bamboo** and miscellaneous forests. Timber wood (mainly Sal & Teak), fire wood, industrial bamboo and commercial bamboo are the major forest produce in the state. Timber contributes about 40% of the total forest revenue with the rest being contributed by Non Wood Forest Products¹⁹. The Great Indian Sal belt, which extends right through the length of the State, has tremendous economic potential for the people in the state. Chhattisgarh has been declared as the "**Herbal state**" by the state Government with an objective of conservation, cultivation, promotion and trade of Minor Forest Produce resources including medicinal plants.

Fishing – Fishing activities amounted to Rs. 1,203.3 crores in 2012-13. The sector grew at an impressive CAGR of 11% between 2004-05 and 2012-13 providing an opportunity of self-employment in the rural areas. **The state ranks 8th in the country in terms of Inland fish production**²⁰. Chhattisgarh has a total of 58,514 rural ponds covering 0.74 Lakh ha and 1734 irrigation reservoirs covering 0.89 Lakh ha water area totalling to 1.63 Lakh ha water area available for fisheries development at the end of 2010-11. Rivers like Mahanadi, Indravati and their tributaries flowing 3,573 Kms. in the state offers significant opportunities for fisheries development activities in the state. The fish production in Chhattisgarh amounted to around 2.3 lakh tonnes during 2010-11, recording a CAGR of around 18% over 2007-08²¹. The provisional data on fish production in 2012-13 is around 2.5 lakh tonnes. The Fisheries Policy in the State released by the Agriculture (fisheries) Department in March 2003 plays a significant role in improving the contribution of the sector in economic activity as well as employment generation.

¹⁷ State of Forest Report 2011-Forest survey of India, Ministry of Environment & Forest, Gol

¹⁸ *ibid.*

¹⁹ Department of Commerce & Industries, Chhattisgarh

²⁰ Department of Fisheries, Chhattisgarh

²¹ *ibid.*

Based on the economic profile of the districts (detailed in the district profiles), the table below summarizes the information related to the Agriculture sector of top 5 districts contributing around 54% to the overall state Agriculture sector output.

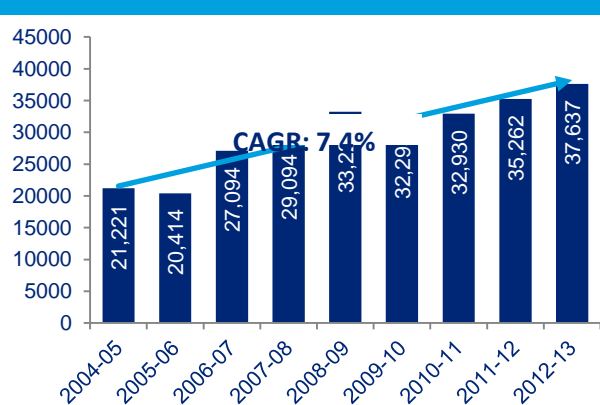
Table 8: Key Districts with high Agriculture Sector contribution in State Economy, 2008-09

District	Contribution to State Agriculture sector output
Raipur*	12.8%
Durg*	12.6%
Bilaspur*	9.7%
Bastar*	9.5%
Surguja*	9.4%
*Combined District; Source: DES-Chhattisgarh and Deloitte Analysis	

3.2.2 Industry

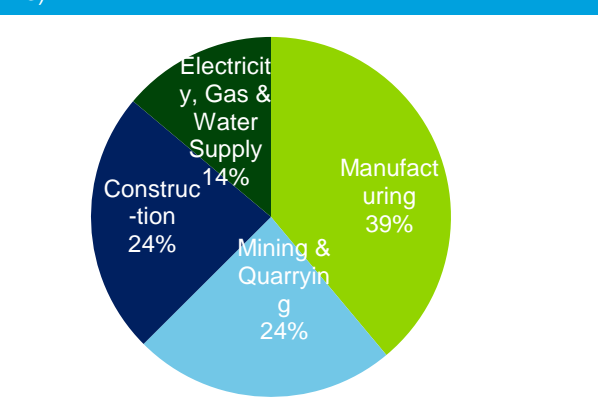
Industry sector is the largest in terms of economic output in the state of Chhattisgarh. As indicated earlier in figure 2, the Industry sector contribution has declined from 44.3% in 2004-05 to 40.9% of GSDP in 2012-13. In real terms, the sector has seen a growth of 7.4% during this time period, primarily due to increasing contribution of sectors like manufacturing & construction. In 2012-13, registered manufacturing comprised 34% of contribution by Industry sector followed by construction (24%), mining & quarrying (24%), electricity, gas & water supply (14%) and unregistered manufacturing (5%).

Figure 12: Industry sector GSDP (2004-05 to 2012-13) in Rs. Crores



Source: Central Statistical Organisation (CSO) State Series (As on 01.08.2013), 2004-05 base prices

Figure 13: Sector wise Share of Industry sector (2012-13)

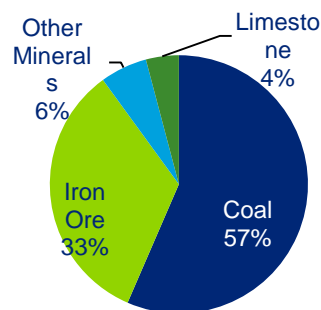


Source: Central Statistical Organisation (CSO) State Series (As on 01.08.2013), 2004-05 base prices

Mining and Quarrying

Mining and quarrying activities' economic output was Rs. 8,884 crores in 2012-13. The sector has seen a positive CAGR of 6.5% between 2004-05 and 2012-13. Chhattisgarh is one of the richest states in terms of mineral resources. Approximately 28 varieties of minerals have been reported in the state which includes iron ore, coal, bauxite, limestone and semi-precious stones²². The mineral resources of the state consists of the bulk minerals like coal, limestone, dolomite, bauxite, graphite, quartzite etc. as well as high value minerals like cassiterite, diamond, corundum, & other gemstones, precious base and rare metals/elements etc. Exploration of minerals account for around 27% of the total revenues of Chhattisgarh with the state Government reporting mineral revenue receipt of Rs. 3122 Cr. in the financial year 2012-13²³. **With 13.3% share, Chhattisgarh was ranked 3rd in India in terms of value of minerals produced in 2012-13²⁴.** The table below highlights the major minerals present in Chhattisgarh.

Figure 14: Mineral Revenue Receipts of Major Minerals in Chhattisgarh (2012-13)



Source: Directorate of Geology & Mining, Chhattisgarh

Table 9: Key Mineral Deposits in the state, 2012-13

#	Mineral	Production	Share in India, %	Rank in India	Key Districts
1	Tin	47,776 Kg	100.00	1 st	Bastar, Dantewada
2	Coal	117.82 MT	21.14	1 st	Korea, Korba, Raigarh & Surguja
3	Iron Ore	27.94 MT	20.54	2 nd	Bastar, Dantewada (Bailadila deposit), Kanker (Chhote Dongar deposit), Rajnandgaon (Rowghat, Chargaon, Metabodeli & Hahaladdi deposits) Durg (Boria Tibbu deposits in Dalli-Rajhara area)
4	Limestone	20.16 MT	7.21	7 th	Bastar, Bilaspur, Durg, Janjgir-Champa, Kawardha, Raigarh, Raipur, Rajnandgaon
5	Dolomite	1.87 MT	27.90	1 st	Bastar, Bilaspur, Durg, Janjgir-Champa, Raigarh, Raipur
6	Bauxite	1.81 MT	11.84	5 th	Bastar, Bilaspur, Dantewada, Jashpur, Kanker, Kawardha, Korba, Raigarh & Surguja

Source: Mineral Resources Department, Government of Chhattisgarh

Some of the key highlights of the major minerals present in the state are indicated below²⁵:

- In 2012-13, major minerals accounted for around 95% of the total revenue receipt from minerals in the state with minor minerals contributing around 5%.
- The state has around 19% of the total iron ore reserves in the country and is known to be home for one of the world's best quality of iron ores found in Bailadila deposits of Dantewada district²⁶.

²² MSME-DI, Raipur

²³ Economic Survey 2012-13, Directorate of Economics & Statistics

²⁴ Directorate of Geology and Mining, Chhattisgarh

²⁵ ibid.

- Chhattisgarh has 17% of the total coal deposits of India and ranks 1st in the country in terms of coal production. Most of the coal deposits are of power grade coal. NTPC & CSEB in Korba are the major producers of thermal power in the state.
- Chhattisgarh has around 38% of the total tin ore reserves in the country with the state being the only tin producing state in India. 48 tons of corundum deposits have been estimated in the State.
- ~3 tons of gold reserves are estimated in the State.
- Some of the other important mineral occurrences of the State are china clay in Durg & Rajnandgaon districts, quartzite in Durg, Raipur, Rajnandgaon & Raigarh districts; and talc/soapstone/steatite in Durg & Kanker districts. Other minerals found in the State are Corundum in Dantewada district; diamond and other gemstones in Raipur, Mahasamund and Dhamtari districts; fire clay in Bilaspur, Raigarh and Rajnandgaon districts; fluorite in Rajnandgaon district; garnet & marble in Bastar district; emerald and gold in Raipur district; granite in Bastar, Kanker & Raipur districts; quartz/silica sand in Durg, Jashpur, Raigarh, Raipur & Rajnandgaon districts.

The Chhattisgarh Mineral Policy, 2001 has created a favourable business environment in the state to attract private investments (domestic as well as international). Establishment of a Gems and Jewellery Park is envisaged in the state in an attempt to attract new investments in the sector. The State's Chhattisgarh Mineral Development Corporation (CMDC) has been tasked with the responsibility of undertaking exploration, exploitation & viable trading of minerals in State, either singly or in joint venture.

Manufacturing

Manufacturing activities amounted to Rs. 14,647.5 Cr. in 2012-13. The sector has seen a positive CAGR of 4.3% between 2004-05 and 2012-13. Chhattisgarh ranks high amongst all the states in terms of occurrence of mineral resources. Abundant availability of minerals and raw materials has facilitated the industrial growth of the state. Large deposits of minerals such as coal and iron ore has supported development of industrial centres like Bilaspur, Raipur, Korba and Raigarh in the state. As of January 2012, Chhattisgarh ranks 2nd in the list of leading states in the country in terms of proposed investments (Rs. 9088 crores) through Industrial Entrepreneurs' Memorandum IEMs filed²⁷. Industry in Chhattisgarh includes a combination of core sector industries, traditional industries such as handicrafts, handlooms and emerging industries such as food processing, gems & jewellery etc.

The key industrial clusters in the state and the associated regions are highlighted in the table below:

Table 10: Key Industrial Clusters in Chhattisgarh

Industries	Key Districts
Iron Ore	Dantewada, Raipur, Durg
Steel	Durg, Raipur, Bilaspur, Korba, Raigarh
Cement	Raipur, Baloda Bazar, Bilaspur, Durg, Janjgir-Champa
Aluminium	Korba
Power	Korba, Bilaspur
Handicraft	Bastar, Kondagaon, Kanker, Surguja, Narayanpur, Dantewada, Durg, Bijapur
Handloom	Janjgir – Champa, Raigarh, Raipur, Durg, Bilaspur, Rajnandgaon, Mahasamund, Kabirdham, Dhamtari, Surguja, Bastar
Sericulture	Jashpur, Surguja, Bastar, Bilaspur, Raigarh and Kanker
Source: Department of Commerce and Industries, Chhattisgarh	

²⁶ Indian Minerals Year Book-2012, Indian Bureau of Mines, Gol

²⁷ Department of Commerce & Industries, Chhattisgarh

Major manufacturing industries

Iron and Steel Industry – Chhattisgarh is known as the iron and steel hub of the country with the state ranking **2nd amongst all the iron-ore producing states in India**. The state accounts for around 21% of the total iron-ore reserves of India²⁸. Mining activities in the state support a lot of downstream industries like iron & steel and the downstream metal industries of iron & steel. Apart from these, there are several sponge iron units in the state as well. Two integrated iron and steel plants are operating (SAIL & JSPL). Some of the key players of iron and steel industry in the state are Steel Authority of India (SAIL), Tata Steel and Essar Steel. SAIL is the largest Iron and Steel producing plant in Chhattisgarh. Two major iron ore and steel plants of Tata Steel & Essar Steel are under pipeline in Bastar and Dantewada districts respectively²⁹. One plant of National Mineral Development Corporation is also in pipeline. At present, Chhattisgarh produces 30 % of the total steel production in the country³⁰. Additionally, more than 80 sponge iron producing units are present in the state. The state contributes 28% of India's total sponge iron production.

Cement Industry – Chhattisgarh accounts for around 7% of the total limestone reserves in India³¹. Presence of widely occurring large reserves of limestone supports Cement Industry in the state. There are 9 major cement plants in the state with an installed capacity of 14.75 million tones along with a number of minor cement plants³². Raipur, Bilaspur and Durg districts are home to a number of large-scale cement plants. Some of the key players in the state in Cement Industry are ACC Limited, Lafarge India, Grasim Industries Limited and UltraTech Cement Limited. At present, the state contributes 15 % of India's total cement production³³.

Power – Chhattisgarh accounts for around 21% of the total coal reserves of the country³⁴. Presence of huge coal reserves in the state ensures constant supply of raw materials for the sector offering cheap power generation opportunities. Chhattisgarh has 7 major and 50 captive coal based power plants with a capacity of more than 8000 MW. The state has entered into 60 MOUs signed for establishment of power plants with an anticipated power production of 50,000 MW³⁵. National Thermal Power Corporation (NTPC) and Chhattisgarh State Power Generation Company Limited (CSPGCL) are the pre-dominant thermal power producers in the state. NTPC is currently implementing India's largest coal based electricity plant at Sipat, Bilaspur in Chhattisgarh. Korba and Bilaspur districts are the power hubs in the state owing to the presence of a number of power generating units established by NTPC, CSPGC and MPEB. Chhattisgarh State Electricity Regulatory Commission is tasked with the responsibility of promoting the sector.

Aluminium– At present, the state contributes 30 % of India's Aluminium production³⁶. Presence of large

²⁸ Mineral Resources Department, Government of Chhattisgarh

²⁹ Directorate of Geology & Mining, Chhattisgarh

³⁰ Department of Commerce & Industries, Chhattisgarh

³¹ Mineral Resources Department, Government of Chhattisgarh

³² MSME-DI, Raipur

³³ Department of Commerce & Industries, Chhattisgarh

³⁴ Mineral Resources Department, Government of Chhattisgarh

³⁵ *ibid.*

³⁶ *ibid.*

iron and steel players in the state along with rich mineral profile has fuelled the development of metal sector in Chhattisgarh. Bharat Aluminium Company Ltd. (BALCO) is one of the major players in the state. It has an integrated Aluminium plant with captive bauxite mines, a captive power plant, refineries and smelters at Korba. BALCO's integrated Aluminium plant in Chhattisgarh produces 100,000 tonnes of Aluminium every year. In order to provide a further boost to the industry, the state government has proposed an Aluminium Park at Korba for promotion of Aluminium based industries and Aluminium downstream industries.

Khadi and Village Industries in state

Handloom Sector - Handloom sector is concentrated primarily in Janjgir - Champa and Raigarh districts which are considered as hubs for Kosa cloth production and Raipur, Durg, Bilaspur, Rajnandgaon, Mahasamund, Kabirdham, Dhamtari, Surguja & Bastar which are cotton producing areas. Kosa cloth of the state and traditional cloth of Jagdalpur are famous at national & international level³⁷. The sector provides employment to approximately 52,000 weavers in the state either directly or indirectly in approximately 17,100 handlooms in Chhattisgarh³⁸. Under Handloom sector, a total of 7,520 pit looms, 175 frame looms and 23 Jakard looms thus totalling to 7,778 looms have been established³⁹.

Sericulture - Rearing of Tussar worms is a traditional activity in the state providing self-employment opportunities to the rural population of Chhattisgarh. Three types of silk varieties are produced in the state viz., Tussar, mulberry and eri. Chhattisgarh ranks second (after Jharkhand) at the national level in cocoon production⁴⁰. Eri silk production is undertaken in Jashpur, Surguja, Bastar, Bilaspur, Raigarh and Kanker districts. Sericulture sector of the Department of Rural Industries, Chhattisgarh has established 97 SHGs comprising of 1,500 women beneficiaries and 1,106 numbers of motorized 3 reeling cum twisting and spinning machines have been provided to these SHGs⁴¹.

Handicrafts - The handicraft industry is a traditional industry in the state employing artisans mainly from socially/economically backward classes. The sector generated total revenue of Rs. 414 lakh in 2012 with the value of exports alone reaching to around Rs. 63 lakhs in 2011. The state is amongst the only 4 states in India to have traditional tribal craft and is home to sixteen unique art forms such as 'Godna', 'Tumba' etc. The Chhattisgarh handicraft sector employs around 25,000 craftsmen in the state with over 75% of artisans engaged being tribals⁴². Bell Metal, Wrought Iron, Terracotta and Wood Craft are the major handicrafts manufactured in Chhattisgarh. Different communities in the state are associated with different pieces of handicraft. While Bell Metal/ Dhokra are basically manufactured by the Ghadwa community mainly in the areas of Bastar, Raigarh and Surguja; Kondagaon and Bastar are the centres of Wrought iron handicraft in the state⁴³. Terracotta is produced by the Kumhara community in the state. Bell metal (35%) accounted for the largest share in the revenue generated by handicraft products in 2012

³⁷ Economic Survey, 2012-13, Directorate of Economics & Statistics

³⁸ Directorate of Rural Industries, Chhattisgarh

³⁹ *ibid.*

⁴⁰ Directorate of Rural Industries (Sericulture), Chhattisgarh

⁴¹ *ibid.*

⁴² Chhattisgarh Handicrafts Sector Profile, Chhattisgarh Handicraft Sector Meet-2012

⁴³ Directorate of Rural Industries, Chhattisgarh

followed by wood carving (20%), wrought iron (15%) and bamboo arts (10%)⁴⁴. The state has a total of 496 clusters with Kanker and Bastar districts having the highest number of handicraft clusters⁴⁵. Owing to the presence of large number of artisans in the district producing variety of handicrafts, Kondagaon district is also known as the craft city of Chhattisgarh.

Table 11: Key Crafts in Chhattisgarh

S#	Meta-Cluster	Craft	Production Clusters	Sub Clusters
1	Surguja and Raigarh	Painted Clay Relief	Surguja District: Puhphutara, Sirkotanga	Surguja District: Pahad Chidwa, Silma, Puhphutara, Luchki/Kanthiprakashpur Raigarh district: Champa, Ektal, Jaspur, Kaserpara, Kharsia, Kosumnara, Madarpara, Netnagar, Pusaur, Raigarh, Rajim, Navapara, Sakthi, Santpura, Sarkandha, Tamnar
2		Dhokra-Lost Wax Metal Casting	Raigarh: Ektal, Jaspur Surguja: Pahad Chidwa Bastar: Bastar Kondagaon: Bhelvapader	
3		Bamboo Basketry	Surguja district: Luchki/ Kanthiprakashpur Raigarh district: Kosumnara, Pusaur, Netnagar, Tamnar, Santpura, Kharsiya	
4		Bronze Ware	Surguja district: Madarpara, Sarkandha, Kaserpara, Sakthi Raigarh district: Pusaur Janjgir district: Champa Raipur district: Rajim, Navapara	
5	Bastar	Brass vessels	Raigarh district: Pusaur	Bastar District: Bastar, Kiri Cheppda, Kondagaon, Tokapal
6		Terracotta Pottery and	Kanker district: Kanker, Dhaneshwara Dantewada district: Kukanar Bastar district: Narayanpur, Nagarnar, Kakar, Mitipara, Deori Kondagaon: Kumharpara	
7		Pata Weaving	Bastar district: Tokapal, Nagarnar, Jagdalpur	
8		Iron Craft	Bastar district: Kiri Chhepda, Kondagaon	
9		Lost Wax Metal Casting	Bastar District: Bastar	

Source: Handmade in India-Crafts of India, Ranjan & Ranjan

Micro, Small and Medium Enterprises (MSMEs)

According to the 4th All India MSME Census, Chhattisgarh accounted for a mere 1.04% of the working MSMEs in the country providing employment to around 1.2% of the total manpower employed in MSME sector in the country. Though manufacturing sector accounted for 49% of the total units of working enterprises surveyed, it provides employment to around 74% people in the registered working enterprises⁴⁶.

Amongst all the MSMEs in the state in manufacturing and Services sector, the key manufacturing sectors in terms of number of enterprises are food processing units (agro based, soda based units and kachori

⁴⁴ Chhattisgarh Handicrafts Development Board

⁴⁵ Chhattisgarh Handicrafts Sector Profile, Chhattisgarh Handicraft Sector Meet-2012

⁴⁶ 4th All India Census of MSMEs 2006-07, GoI

making, 29%) repairing & servicing units (16%), Mineral based units, metal based Steel Fabrication units and Electrical Machinery and Transport Equipment (9%), retail sale units of textiles and garments (8%) and manufacturing units of wooden based furniture (7%)⁴⁷.

The key districts and employment across MSME units in Chhattisgarh are presented in the table below:

Table 12: Key MSME Clusters in terms of Employment⁴⁸

MSME Industries	Key Districts	Approximate Employment
Large Manufacturing units ⁴⁹	Durg, Raipur, Bilaspur, Surguja, Rajnandgaon	79130
Food processing ⁵⁰	Durg, Raipur, Bilaspur, Surguja, Janjgir-Champa	44867
Repairing & Servicing	Bilaspur, Raigarh, Surguja, Rajnandgaon, Durg	28845
Wood/ wooden based furniture	Bilaspur, Raigarh, Raipur, Rajnandgaon, Surguja	20157
Textile & Garments ⁵¹	Surguja, Bilaspur, Raipur, Rajnandgaon, Janjgir-Champa	16740
Other manufacturing ⁵²	-	136073
Total		325812

Source: MSME DI Profiles of respective districts

Thrust Sectors in State

Food Processing – Chhattisgarh is popularly known as the ‘rice bowl’ of Central India with the state being one of the largest producers of rice in Central India. The state is also one of the major producers of maize, cereals and pulses in the country. The dependence of majority of the state’s population on agriculture has led to the identification of food processing industry and agro based activities as a special-thrust industry in Chhattisgarh with Government encouraging the value addition of natural agro & food products in the state. In an effort to promote the industry, the state government has enacted the Agro and Food Processing Industries Policy – 2012. The Industrial Policy (2009-14) also identifies the sector as thrust area and classifies select agro sector and food processing industries as priority sector. Additionally, the Government of Chhattisgarh is setting up a Food Processing Park at Rajnandgaon district implemented under Public Private Partnership by Ramky Infrastructure Limited.

Gems & Jewellery - Chhattisgarh is one of the most mineral rich states in the country, including precious minerals such as gold and diamond. Recognizing the vast potential of the sector in the region, the government is establishing a gems and jewellery Special Economic Zone (SEZ) to carry out value addition within the state and attract new investments in the sector. The SEZ is proposed to be developed in about 28 ha of land at the new capital area of Raipur with an estimated project development cost of about Rs. 110 Cr. for basic infrastructure as per SEZ norms. Government of Chhattisgarh has also

⁴⁷ MSME-DI, Raipur

⁴⁸ Data available for 18 combined districts

⁴⁹ Includes Mineral based units, Metal based Steel Fabrication units and Electrical Machinery and Transport Equipment

⁵⁰ Includes Agro based and Soda Water units

⁵¹ Includes Cotton textile, Woolen, silk & artificial Thread based clothes, Jute & Jut based units and Ready-made garments & embroidery units

⁵² Includes Paper & Paper Products, Leather based units, Chemical/Chemical based units, Rubber, Plastic & petro based units, Engineering units and other manufacturing units not listed above

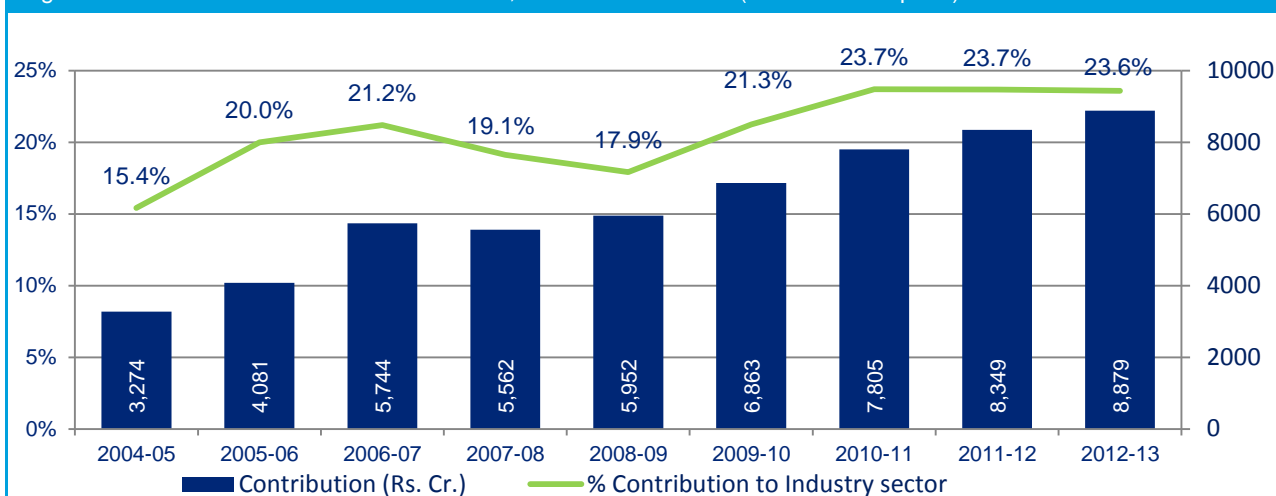
enacted its SEZ policy to provide incentive in terms of mining rights etc.

Apparel Industry - Chhattisgarh is one of the leading producers of Tussar and Kosa silks in the country and has potential to be one of the major players in the Indian apparel industry. Raipur has a prospecting business of readymade garments with the same being supplied to neighboring states like Orissa, Maharashtra, and Jharkhand etc. To promote apparel sector in the state, CSIDC is establishing an apparel park in Bhanpuri, Raipur on an area of 1.35 ha for development of textile and textile-based industries and attract new investments in the sector. Furthermore, with the support of Apparel Export Promotion Council, 3 Apparel Training & Designing Centres (ATDC) have been established in Chhattisgarh at Bilaspur, Raipur and Bhilai. These training centres aim to provide skilled manpower for apparel industries in the state.

Construction

Construction activities amounted to Rs. 8,878.7 Cr. in 2012-13. The sector has grown at a CAGR of 13.3% between 2004-05 and 2012-13 with the contribution of the sub-sector to the Industry sector growing from 15.4% to 23.6% over the same time period. The total budgeted value for ongoing building and construction activities (building and roadwork) in Chhattisgarh for the year 2013-14 allocated at Rs. 6524 crores indicates the current focus on the sector in the state⁵³.

Figure 15: Contribution of Construction Sector, 2004-05 to 2012-13 (2004-05 base price)



Source: Central Statistical Organisation (CSO) State Series (As on 27.02.2013), 2004-05 base prices

Chhattisgarh State Industrial Development Corporation (CSIDC) Projects

CSIDC is a Govt. of Chhattisgarh undertaking under Commerce & Industry Department registered under companies Act 1951. Since its inception, CSIDC has taken up the task of setting up of industrial areas, development of infrastructure facilities, operation of government industries etc. to promote the manufacturing sector in the state. In an effort to promote and boost the current industrial development in the state and facilitate setting up of thrust industries, the Chhattisgarh State Industrial Development Corporation (CSIDC) has taken the following initiatives in the state⁵⁴:

⁵³ Chhattisgarh Public Works Department

⁵⁴ Chhattisgarh State Industrial Development Corporation (CSIDC) Website – Projects

Established Projects by CSIDC

Industrial Growth Centres (IGCs) – Following Industrial Growth Centres have been established in the state for promotion of industries:

- ♦ **Industrial Growth Centre, Urla (Raipur)** - Industrial Growth Centre (IGC), Urla situated on the outskirts of Raipur is spread over an area of approximately 375 hectares including peripheral industrial areas of Sorora, Sondongri, Gondwara and Gogaon equipped with provision of infrastructure facilities such as roads, drainage, electricity, and water supply. At present, 418 Industries are already established in the IGC Urla with fixed investment of more than Rs. 425 crores providing direct employment to 11259 persons.
- ♦ **Industrial Growth Centre, Siltara (Raipur)** - Industrial Growth Centre, Siltara is situated 13 kms from Raipur spread over an area of approximately 1185 hectares. The major projects in the vicinity include sponge iron units, ferro alloy units, and cooking gas bottling plant. At present, 48 industries have been established in the growth centre with fixed investment of more than Rs. 716 crores providing direct employment to more than 2772 persons.
- ♦ **Industrial Growth Centre, Sirgitti (Bilaspur)** - Industrial Growth Centre, Sirgitti situated on the outskirts of Bilaspur is spread over an area of approximately 338 hectares. At present, 324 industries have already been established in the growth centre with fixed investment of more than Rs. 447 crores providing direct employment to 4431 persons.
- ♦ **Industrial Growth Centre, Borai (Durg)** – Industrial Growth Centre, Borai is situated at a distance of 9 kms from Durg and is spread over an area of approximately 451 hectares. At present, 44 industries have already been established with fixed investment of more than Rs. 136 crores providing direct employment to 1495 persons.

Industrial Areas – The established industrial areas in Chhattisgarh are:

- ♦ **Industrial Area, Bhanpuri-Rawabhata** – Industrial Area Bhanpuri-Rawabhata is situated near Raipur and is spread over an area of approximately 200 hectares equipped with infrastructure facilities such as electricity, road, water supply, drainage etc.
- ♦ **Industrial Area, Tifra** - Industrial Area Tifra is situated on the outskirts of Bilaspur city and is spread over an area of approximately 65 hectares.
- ♦ **Industrial Area Anjani** - Industrial Area Anjani is situated in Bilaspur district and is spread over an area of approximately 48 acres.

On-going Projects

Specialized Industrial Parks - 5 Industrial Parks are being setup in the state with an objective of cluster development of thrust industries.

- ♦ **Metal Park** - Metal Park is being established at Rawabhata which is 12 kms from Raipur to cater to the demand for downstream products of iron & steel, power and cement plants. The first phase of the project is developed on an area of 46 hectares of land.
- ♦ **Apparel Park**- In an effort to promote and provide a thrust to the apparel industry in the state, an Apparel Park is developed in Bhanpuri at Raipur on 1.35 ha of land. The apparel park aims to provide a single roof for all apparel associated activities and give a boost to apparel industry. Proximity to ICD Raipur and wholesale cloth market of Pandri is an added advantage. The park is proposed to have an independent loading / unloading dock, common facility building, outer development, water supply, drainage system etc.

- ♦ **Food Processing Park** - The Food Processing Park in the state is proposed to be setup under Public-Private-Partnership. It is planned to be equipped with common facilities such as auditorium, canteen, fire station, medical facilities, logistic hub, weigh bridge, substation, cold storage, warehouse, quality control laboratory and R&D unit. An Authorization Agreement has been executed between CSIDC (on behalf of Government) and M/s Ramky Infrastructure Ltd., Hyderabad for establishment of the Food Processing Park⁵⁵.
- ♦ **Herbal and Medicinal Park** – In view of the state being declared as the "Herbal State" by the Government of Chhattisgarh, a Herbal Medicinal Park is proposed to be developed in Kurudh Tehsil (30 km from New Capital Raipur City), Dhamtari on about 100 ha of land under Public-Private-Partnership. It is proposed to be equipped with common facilities such as testing laboratory and R&D centre, training centre, marketing/ branding services along with utility services such as water supply, sewerage, power supply and telephone lines.
- ♦ **Gems & Jewellery Special Economic Zone** - Gems & Jewellery SEZ is proposed to be developed over an area of about 28 ha at the new capital area of Raipur close to the airport. The proposed SEZ is planned to be equipped with 'front-end' components for sales and marketing and 'back-end' components for manufacturing units.

Integrated Infrastructure Development Centres (IIDC) for Small Scale Industries - Integrated infrastructure development centres (IIDC) at Harinchhapara (Kabirdham), Birkoni (Mahasamund) & Girwarganj-Nayanpur (Surguja) have been established in an effort to promote the small scale industries. Industrial plots are available for allotment. IID Centres are also being developed at Tifra (Bilaspur), Kapan (Janjgir-Champa - 200 kms. from Raipur), Teknar, (Dantewada) and Tendua (Raipur). Also land for development of small industrial area at Gangapur-Khurd (Surguja), Bijetala (Rajnandgaon) and Pavantara (Rajnandgaon) has been selected.

Industrial Infrastructure Up-gradation Scheme (IIUS) - Industrial Infrastructure Up-gradation Scheme aims to provide quality infrastructure to selected functional clusters/locations through public-private partnership approach in an effort to enhance the international competitiveness of the domestic industry making them globally competitive. Industrial Growth Centres Siltara & Urla in Raipur district have been selected under this scheme as identified Steel Cluster and an administrative approval of Rs. 54.10 Cr. is received from GoI. Chhattisgarh Ispat Bhumi Ltd., Raipur (CIBL) has been formed as the Special Purpose Vehicle under Public-Private Partnership for implementation of the Project.

Apparel Training & Designing Centres (ATDC) - Raipur & Bilaspur - With the help of Apparel Export Promotion Council three Apparel Training & Designing Centres (ATDC) have been setup in Chhattisgarh at Bilaspur, Raipur, Bhilai and Rajnandgaon. These training centres are providing manpower to apparel industries in Chhattisgarh and outside.

New Proposed Projects

Large Industrial Areas - Three Large Industrial Areas are proposed to be set up by the state Government in Bilaspur (795 ha), Raigarh (1466 ha) & Raipur (1730 ha) districts on a total of 4740 hectares of land. The thrust areas in the proposed Large Industrial Areas would be Steel Plants, Ferro Alloys Units, Power Plants/Captive Power Plants and other core industries. Additionally, CSIDC has taken steps to develop Silaphari situated near Bilaspur into a fully functional Large Industrial Area.

Aluminium Park, Korba – CSIDC has proposed establishment of an Aluminium Park in Korba district spread over an area of approximately 140 ha of land to promote the value addition in Aluminium sector.

⁵⁵ Chhattisgarh State Industrial Development Corporation (CSIDC)

Engineering Park, Durg - In an effort to promote engineering industries in the state, an Engineering Park is proposed to be setup in Industrial Area Bhilai on approximately 120 ha of land. It is proposed to have about 150 units based on engineering products, machine tools, auto components, casting & forging etc.

Poly Park, Tilda, Raipur - Establishment of Poly Park is proposed at Tilda, Raipur spread over an area of approximately 37 ha. It is planned to be developed as a cluster of polymer industries.

Based on the economic profile of the districts (detailed in the district profiles), the table below summarizes the information related to the Industry sector of top 5 districts which together contributed approximately 80% to the state economy.

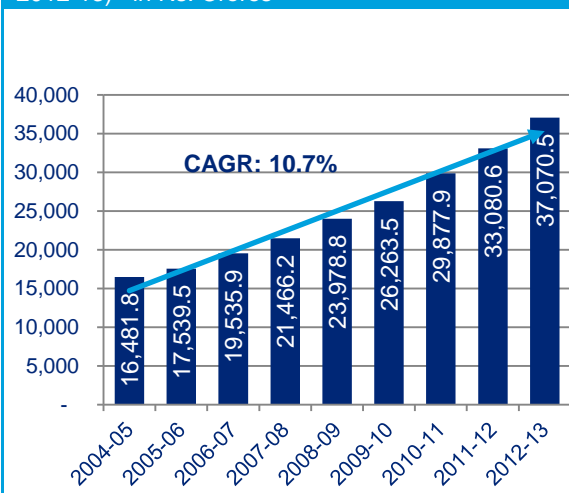
Table 13: Key Districts with high Industry sector share in State economy

District	Contribution of district to overall state Industry output (2008-09)	Major Sectors ⁵⁶
Durg*	27.2%	Manufacturing (mineral/metal based), Building and Construction, Food Processing (Agro based, Soda based), Large Manufacturing (Mineral based and Metal based-Steel Fabrication) Units, Engineering Units
Korba	23.7%	Mining and Quarrying, Manufacturing (mineral/metal based), Building and Construction, Repairing & Servicing entities, Large Manufacturing (Mineral based and Metal based-Steel Fabrication) Units, Wood/wooden based furniture, Food Processing (Agro based, Soda based)
Raipur*	13.9%	Manufacturing (mineral/metal based), Building and Construction, Large Manufacturing (Mineral based and Metal based-Steel Fabrication) Units, Food Processing (Agro based, Soda based), Textile & Garments
Raigarh	11.0%	Mining & Quarrying, Manufacturing (mineral/metal based), Building and Construction, Repairing & Servicing entities, Wood/wooden based furniture, Large Manufacturing (Mineral based and Metal based-Steel Fabrication) Units
Bilaspur*	4.4%	Manufacturing (mineral/metal based), Building and Construction, Repairing & Servicing entities, Textiles/Garments, Wood/wooden based furniture, Food Processing (Agro based, Soda based)
*Data is for combined districts; Source: MSME DI Profiles; Dir. of Economics and Statistics-Govt. of Chhattisgarh; Deloitte Analysis		

⁵⁶ The MSME sectors indicated are the key sectors in terms of number of units established in the district

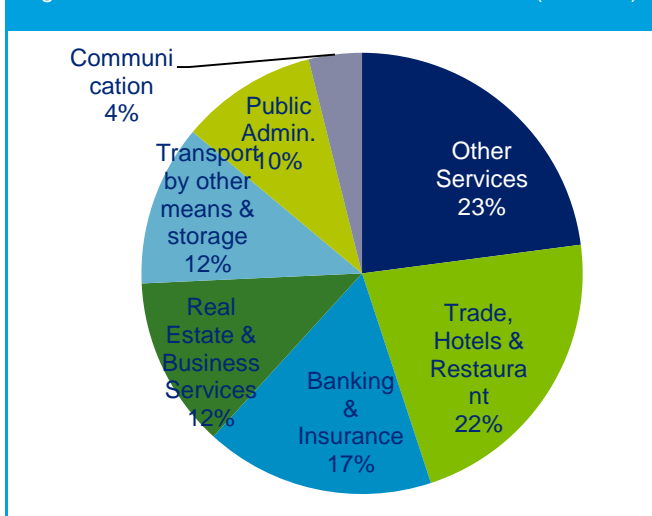
3.2.3 Services

Figure 16: Services sector GSDP (2004-05 to 2012-13) in Rs. Crores



Source: Central Statistical Organisation (CSO) State Series (As on 01.08.2013), 2004-05 base prices

Figure 17: Sector wise Share of Services sector (2012-13)



Source: Central Statistical Organisation (CSO) State Series (As on 01.08.2013), 2004-05 base prices

The Services sector contribution in the state has increased significantly from 34.4% in 2004-05 to 40.3% of the GSDP in 2012-13⁵⁷, indicating thus the importance of the Services sector in the state economy. In real terms, the sector has seen growth of 10.7% during this time period, primarily due to increasing growth of sectors like banking and insurance and communication.

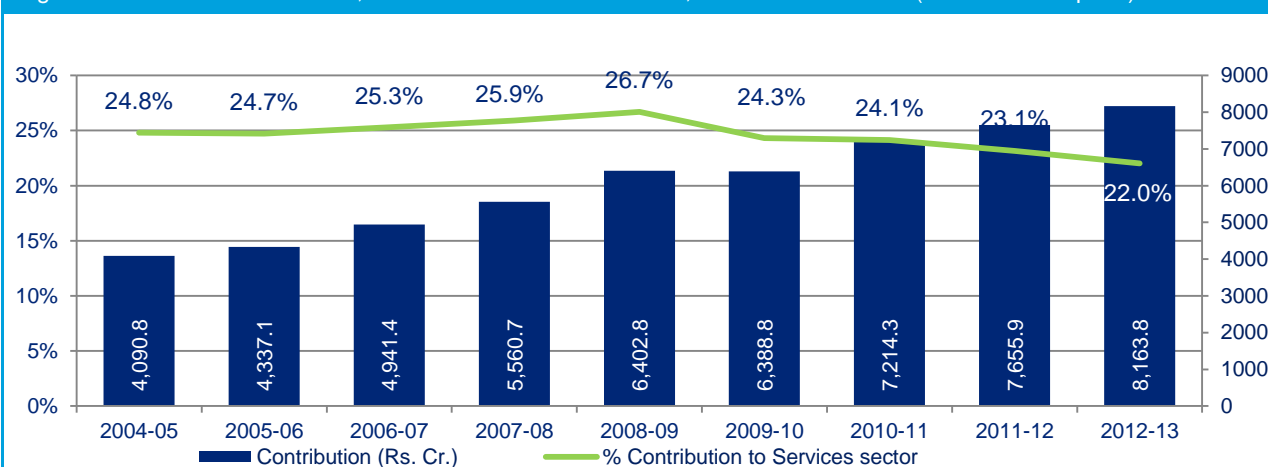
In 2012-13, other services comprised 23% of the Services sector in state followed by trade, hotels and restaurants (22%), BFSI (17%), Real Estate (12%) and transport and storage (12%).

Trade, Hotels and Restaurants

Trade, hotels and restaurants sector contributed Rs. 8,163.8 Cr. to the state economy in 2012-13. It contributes 22% to the Services sector and has grown at 9% between 2004-05 and 2012-13.

⁵⁷ Central Statistical Organisation (CSO) State Series (As on 01.08.2013), 2004-05 base prices

Figure 18: Contribution of Trade, Hotels and Restaurant Sector, 2004-05 to 2012-13 (2004-05 base price)



Source: Central Statistical Organisation (CSO) State Series (As on 01.08.2013), 2004-05 base prices

Trade— As per the 5th Economic Census, the state has a total of 6, 37,305 enterprises. Non-agricultural enterprises constitute 86.25% of the total enterprises in the state with the rest being agricultural enterprises. The state is primarily involved in the trade of iron ore, steel, cement, Aluminium, minerals, handicrafts, textile (Kosa, Tussar) etc. Raipur, Durg, Bilaspur and Korba districts are the major regional hubs for trade in the state. Chhattisgarh Government has developed appropriate infrastructure in the state for promotion of trade. In an effort to handle and promote mining and metal industry related trade traffic in the state, the Indian railways have established South-East Central Railway with its headquarters at Bilaspur. The on-going and proposed projects for extension and capacity expansion of the current network of highways (national & state), roads and railways is envisaged to provide further impetus to the movement of raw materials and finished goods within and outside the state. In an effort to facilitate and promote the movement of international trade cargo from the state, a dry port has been established at Urla, Raipur city.

Tourism - The state is endowed with a rich cultural heritage and biodiversity with significant presence of ancient monuments, archaeological sites, temples, waterfalls, rare wildlife and caves. The state has 3 National Parks and 11 Wildlife Sanctuaries. Recognizing the potential of tourism in the state, the state has enacted tourism policy which focusses on improving the competitiveness of the sector. Festivals like Dusshera at Bastar, Madai at Dantewada and Narayanpur, Bhoramdeo, Raut Nacha and Chakradhar Samaroh are being marketed by the state government for global exposure. Major areas of focus for promotion of tourism in the state are listed in the table below:

Table 14: Key Tourist Destinations in Chhattisgarh

Category of Tourism	Key Places
Eco-tourism	Mainpat (Surguja), Keshkal valley (Kanker), Chaiturgarh (Bilaspur), Bagicha (Jashpur), Kutumbsar caves, Kailash caves, Tirathgarh falls, Chitrakoot falls (Bastar)
Culture, Heritage and Ethno-Tourism	Bhoramdeo, Rajim, Sirpur, Tala, Malhar, Sheorinarayan
Pilgrim Tourism	Rajim, Malhar, Champaranya, Dongargarh, Sheorinarayan, Girodhpuri, Dantewada, Ratanpur, Sirpur
Adventure Tourism	Keshkal Valley, Kutumbsar caves, Chitrakoot falls, Kailash caves
Source: Chhattisgarh Tourism Board	

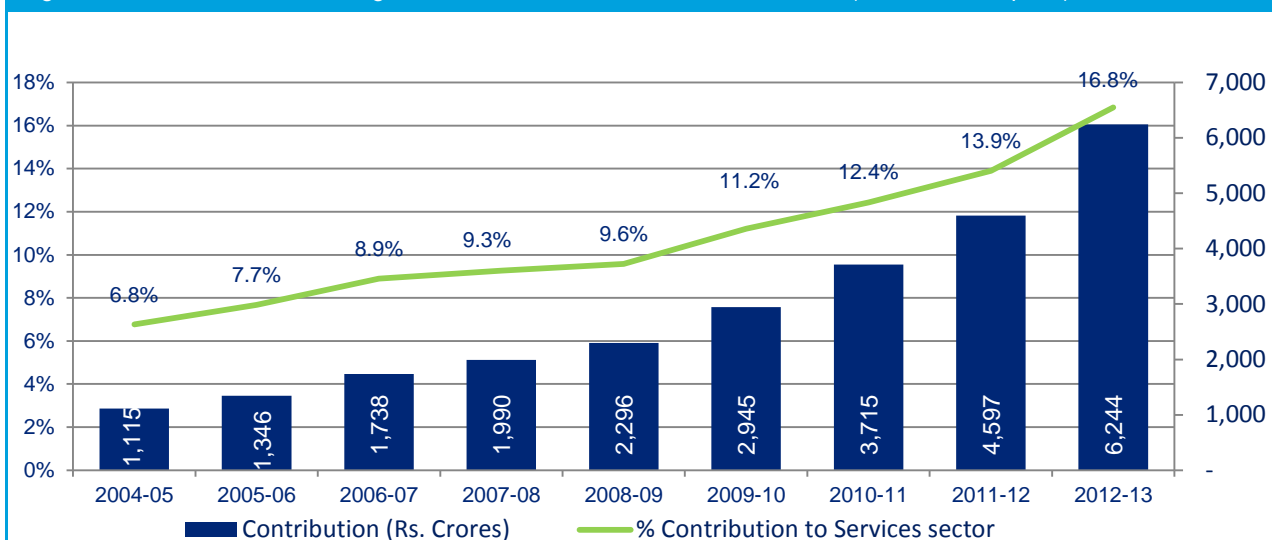
The state is easily accessible from other parts of the country through air, rail and road. While the domestic airport at Raipur is linked to all the major Indian cities, Raipur and Bilaspur railway station provides

connectivity to major railways stations in the country. With suitable promotional schemes and development of appropriate tourist infrastructure, the state has the potential to emerge as a prominent tourist destination in the country.

Banking and Insurance

The Banking and Insurance sector is the fastest growing segment in Services sector registering a CAGR of 24.0% between 2004-05 and 2012-13. The sector contributed Rs. 6,244.5 Cr. in the state economic activity in the year 2012-13.

Figure 19: Contribution of Banking and Insurance Sector, 2004-05 to 2012-13 (2004-05 base price)



Source: Central Statistical Organisation (CSO) State Series (As on 01.08.2013), 2004-05 base prices

As highlighted in the figure above, the contribution of Banking and Insurance sector to Services sector has increased from 6.8% in 2004-05 to 16.8% in 2012-13. The table below captures the details of the total number of banks and their branches in the state.

Table 15: Total number of Banks & their branches in Chhattisgarh

Type of Bank	Rural	Semi-Urban	Urban	Total
PSU banks	421	361	399	1181
Private banks	23	56	80	159
Cooperative banks	154	85	64	303
Regional Rural banks	449	78	41	568
As on 30 th Sep 2013, Directorate of Institutional Finance				

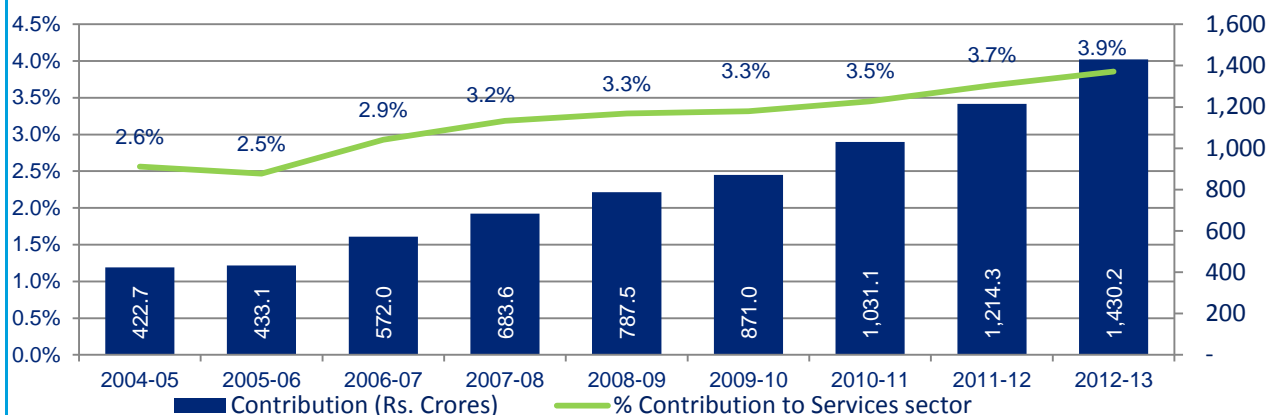
As on 30th September, 2013, Chhattisgarh had a total of 2211 Banks & their branches in the state. PSU banks account for 53% of the total bank branches in the state followed by Regional rural banks (26%), cooperative banks (14%) and private sector banks (7%). In terms of regional spread of the banks, 47% of the branch network falls in rural areas with 26% each in urban areas and semi urban areas of the state. As per the RBI Bulletin, Raipur (264) had the maximum number of branches in Chhattisgarh in the year 2010-11 followed by Durg (203), Bilaspur (130) and Jashpur (119)⁵⁸.

⁵⁸ As per data available for 18 districts

Communication

The Communication sector has registered an impressive growth of around 17% between 2004-05 and 2012-13 with the contribution of the sector at approximately 4% of the Services sector in 2012-13. The high growth rate of the sector is attributed to the growth of the telecommunication sector in the state.

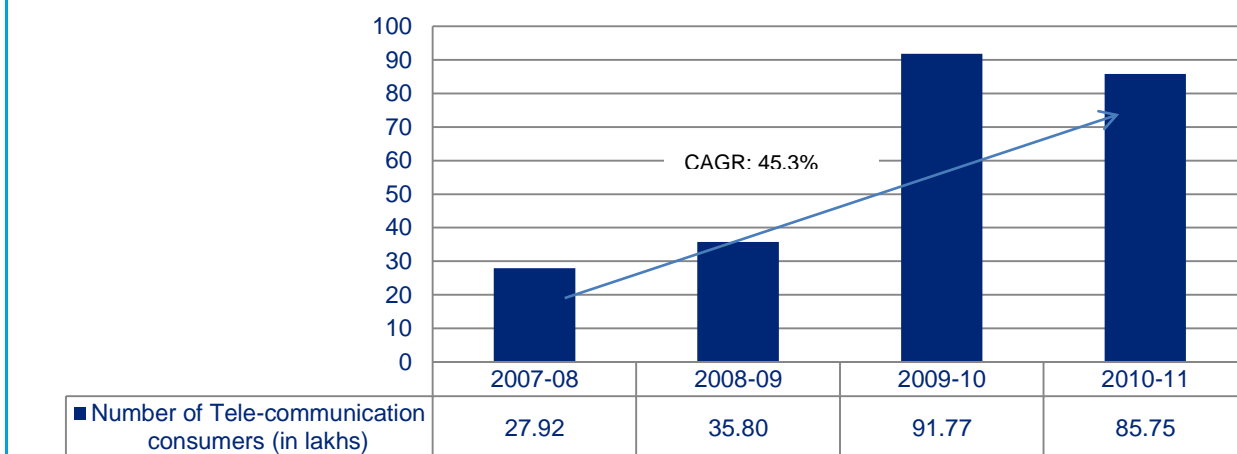
Figure 20: Contribution of Communication Sector, 2004-05 to 2012-13 (2004-05 base price)



Source: Central Statistical Organisation (CSO) State Series (As on 01.08.2013), 2004-05 base prices

Some of the major telecom operators in the state include BSNL, Bharti Airtel, Tata Indicom, Vodafone Essar, IDEA Cellular, Reliance Communications etc. As on 2010-11, Chhattisgarh had a total of 85.75 lakhs of mobile consumers in the state⁵⁹. The figure below provides details of the total number of telecommunication consumers in the state.

Figure 21: Total number of Tele-communication consumers in Chhattisgarh



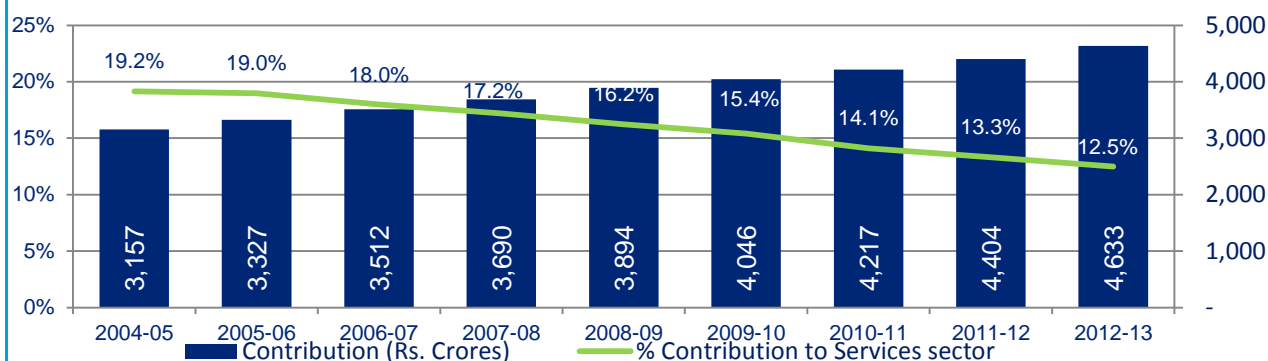
Source: Statistical Pocket Book of Chhattisgarh, 2010-11

⁵⁹ Statistical Pocket Book of Chhattisgarh, 2010-11

Real Estate and Business Services

Real Estate and Business Services sector comprises of real estate services, ownership of dwellings, rental services, computer and related activities (including IT/ITeS), business services etc. The sector grew at a CAGR of 4.9% between 2004-05 and 2012-13, contributing 13% to the Services sector in the year 2012-13. As highlighted in the figure below, the contribution of Real Estate and Business Services sub-sector to Services sector has decreased from 19.2% in 2004-05 to 12.5% in 2012-13.

Figure 22: Contribution of Real Estate and Business Services sector, 2004-05 to 2012-13 (2004-05 base price)



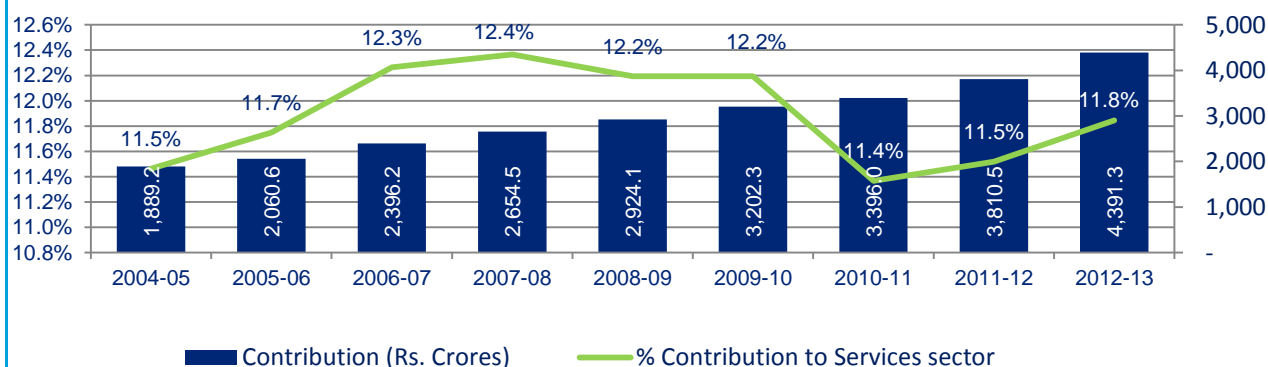
Source: Central Statistical Organisation (CSO) State Series (As on 01.08.2013), 2004-05 base prices

The IT sector is identified as a thrust sector in the state. Recognizing the importance of Information Technology in economic and social development enabling the quality of life, the Government introduced the IT and ITES Policy with an objective of establishing Chhattisgarh as the preferred choice for IT Investments in the country while simultaneously creating an enabling environment promoting thus robust growth of local IT industry in the State. The Government has taken steps to promote IT in various aspects of governance as well. All districts have been linked with optical fibre cables and all “tehsils” have internet facilities. The Government has also set up a nodal agency, CHiPS headed by the Chief Minister for driving IT growth and execution of IT plans in the state.

Transport and Storage

The transport and storage sector (including railways) grew at 11.1% between 2004-05 and 2012-13, contributing approximately 12% to the Services sector in 2012-13. The contribution of this sector has been uneven in the overall services sector between the period 2004-05 and 2012-13.

Figure 23: Contribution of Transport and Storage (including Railways) Sector, 2004-05 to 2012-13 (2004-05 base price)



Source: Central Statistical Organisation (CSO) State Series (As on 01.08.2013), 2004-05 base prices

The state is well connected with a network of roads and railways. As of 2011, Chhattisgarh Public Works Department (PWD) maintained a total road length of 33448.8 kms which included 2226 kms of national highway, 5240 kms of state highway, 10539.8 kms of major district road and 15443 kms of rural roads⁶⁰. Total length of metalled roads in the state is 28357.4 while non-metalled roads account for 5091.4 kms⁶¹. P.W.D roads account for 64.5% of the total roads in the state while rural development roads comprised 34.8%. The state has maintained a total road length of 37.6 kms per hundred sq. km. The table below summarizes the total length of P.W.D roads in Chhattisgarh.

Table 16: Year wise length of P.W.D Road in Chhattisgarh

Classification			2007-08	2008-09	2009-10	2010-11
National Highway	Metalled Road (Kms.)		2191.60	2191.60	2190.00	2190.00
	Non Metalled Road (Kms.)		36.00	36.00	36.00	36.00
State Highway	Metalled Road (Kms.)		3380.37	3658.45	4974.01	4974.00
	Non Metalled Road (Kms.)		39.10	65.80	266.00	266.00
Major District Road	Metalled Road (Kms.)		3684.93	6039.1	7747.80	10207.80
	Non Metalled Road (Kms.)		144.60	152.40	240.20	332.00
Rural Road	Metalled Road (Kms.)		18592.2	17044.87	13446.32	10985.60
	Non Metalled Road (Kms.)		6243.66	5139.09	4549.17	4457.40
Total	Metalled Road (Kms.)		27849.1	28934.02	28358.13	28357.40
	Non Metalled Road (Kms.)		6463.36	5393.29	5091.37	5091.40
Sanctioned Length of road under PMGSY (kms.)			6836.68	3819.94	-	-
Completed Length of road under PMGSY (kms.)			2676.38	2427.09	4020.42	1570.72
Source: Statistical Pocket Book of Chhattisgarh, 2010-11						

The head-quarters of the South-East Central Railway is established at Bilaspur. The rail network comprises of a total route length of 918.96 kms in 2011 with a total track length of 2230.35⁶². The broad gauge constituted 2138.54 kms in the total railway track while narrow gauge constituted 91.8 kms in 2011⁶³. The state had 6.66 km of railway line per thousand sq. km. in 2011. There were a total of 33.02 lakhs of registered vehicles in Chhattisgarh in 2010-11 which comprised of cars & jeeps (2.53 lakhs), taxi & three-wheelers (0.37 lakhs), passenger buses (0.38 lakhs), goods carrier trucks (1.07 lakhs), two-wheelers (26.82 lakhs) and others including tractor trolley (1.85lakhs). In 2011, Chhattisgarh had a total of 137 vehicles registered per thousand of population.

⁶⁰ Statistical Pocket Book of Chhattisgarh, 2010-11

⁶¹ *ibid.*

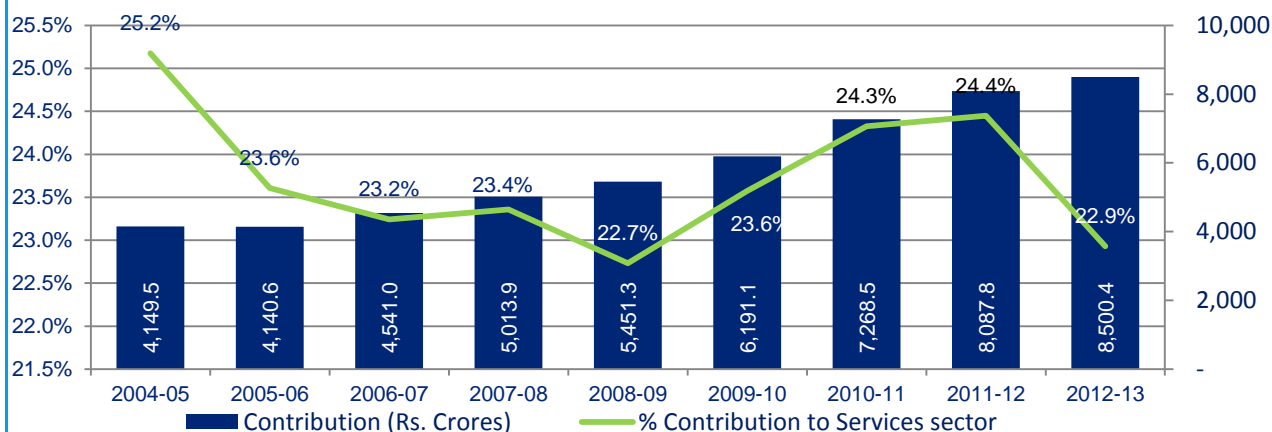
⁶² Statistical Pocket Book of Chhattisgarh, 2010-11

⁶³ *ibid.*

Other Services

This sector has grown at 9.4% between 2004-05 and 2012-13, contributing around 23% to the Services sector in 2012-13. This sector includes services such as Education & Skill Development, Healthcare, Media & Entertainment along with the Informal sector services such as drivers, domestic help etc.

Figure 24: Contribution of Other Services sector, 2004-05 to 2012-13 (2004-05 base price)



Source: Central Statistical Organisation (CSO) State Series (As on 01.08.2013), 2004-05 base prices

Based on the economic profile of the districts (detailed in the following chapters), the table below summarizes the information related to the Services sector of the top 5 districts accounting about more than 63% of the total Services sector output of the state in 2008-09.

Table 17: Key Districts with high Services sector share in State economy

District	Contribution of district to overall state Services sector output (2008-09)	Services sector output (in 2008-09 @ 2004-05 constant prices) (Rs Cr)
Raipur*	21.7%	5,197
Durg*	17.3%	4,160
Bilaspur*	11.6%	2,771
Surguja*	6.0%	1,444
Rajnandgaon	6.0%	1,440
CHT	-	23,979

*Combined Districts
Source: Directorate of Economics and Statistics; Deloitte Analysis

3.2.4 Promotional Initiatives – Thrust Sectors

As per the Industrial Policy (2009-14), the Government aims to encourage parallel development of the allied sectors along with core sector and focus on balanced industrial development in the state⁶⁴. Chhattisgarh State Industrial Development Corporation (CSIDC) has promoted establishment of the industrial parks and growth centres across districts with key thrust areas, as presented in the table below:

⁶⁴ Industrial Policy (2009-14), Govt. of Chhattisgarh

Table 18: District wise key Infrastructure Investments, Chhattisgarh

District	Infrastructure Investment	Status	Thrust Areas
Raipur	Industrial Growth Centre, Urla	Established Project	Steel, Processed Food
	Industrial Growth Centre, Siltara	Established Project	Pig Iron, Sponge Iron, Power Plant, HR Coils, Plywood, Different Chemicals, Acids
	Industrial Area, Bhanpuri-Rawabhata	Established Project	Processed food, wood products, cement products, steel, ferro-alloys etc.
	Apparel Park	On-going Project	Apparel Industry & other associated activities
	Gems & Jewellery Special Economic Zone	On-going Project	Gems and jewellery
	Integrated infrastructure development centre, Tendua	On-going Project	Small scale industries
	Apparel Training & Designing Centre (ATDC)	On-going Project	Apparel Industry
	Large Industrial Area	New Project	Steel Plants, Ferro Alloys Units, Power Plants/ Captive Power Plants and other core industries
	Poly Park, Tilda	New Project	Polymer Industries
Bilaspur	Industrial Growth Centre, Sirgitti	Established Project	Fertilizer, processed food, Rerolled Products, Malleable Castings, Grinding Media Balls, Heavy Earth Moving Machineries, Steel Castings etc.
	Industrial Area, Tifra	Established Project	Chemicals, Gases, PVC footwear, tyre retreading, HDPE woven sacks, polythene bags & sheets, ropes, ayurvedic drugs, Soft drinks, food products cold storage, Rerolled products, steel castings etc.
	Industrial Area Anjani	Established Project	NA
	Metal Park	On-going Project	Downstream metal industries of iron & steel, power and cement plants
	Integrated infrastructure development centre, Tifra	On-going Project	Small scale industries
	Apparel Training & Designing Centre (ATDC)	On-going Project	Apparel Industry
	Large Industrial Area	New Project Project	Steel Plants, Ferro Alloys Units, Power Plants/Captive Power Plants and other core industries
Durg	Large Industrial Area, Silaphari	New Project Project	Sponge Iron Industries
	Industrial Growth Centre, Borai	Established Project	Sponge Iron, Chloro-Benzene, PVC Rigid Pipes, Confectionery, Nut-Bolts, Machinery & Fabrication, LPG Bottling, Biscuits & Bakery Products, Fabric Pigments, M.S. & Galvanized Pipes & Tubes
	Engineering Park	New Project Project	Engineering Industries (engineering products, machine tools, auto components, casting & forging)
Dhamtari	Herbal and Medicinal Park	On-going Project	Herbal/ medicinal processing/ manufacturing units
Kabirdham	Integrated infrastructure development centre, Harinchhapara	On-going Project	Small scale industries
Janjgir-Champa	Integrated infrastructure development centre, Kapan	On-going Project	Small scale industries
Mahasamund	Integrated infrastructure development centre, Birkoni	On-going Project	Small scale industries

District	Infrastructure Investment	Status	Thrust Areas
Surguja	Integrated infrastructure development centre, Girwarganj-Nayanpur	On-going Project	Small scale industries
	Small Industrial Area, Gangapur-Khurd	Proposed Project	Small scale industries
Dantewada	Integrated infrastructure development centre, Teknar	On-going Project	Small scale industries
Rajnandgaon	Small Industrial Area, Bijetala	Proposed Project	Small scale industries
	Small Industrial Area, Pavantara	Proposed Project	Small scale industries
	Apparel Training & Designing Centre (ATDC)	On-going Project	Apparel Industry
	Food Processing Park	On-going Project	Processed food items
Raigarh	Large Industrial Area	New Project	Steel Plants, Ferro Alloys Units, Power Plants/Captive Power Plants and other core industries
Korba	Aluminium Park	Proposed Project	Aluminium based industries and Aluminium downstream industries.
Source: Chhattisgarh State Industrial Development Corporation			

The following sections outline the high-potential sectors identified for growth and employment in industry and service sectors.

Industries

For promotion of industrial investment, industries are classified into saturated, priority sector, core sector and general category industries by the Industrial Policy (2009-14). Specific promotional initiatives are proposed in the industrial policy (2009-14) for all the industries (except saturated category) commencing commercial production/expansion/ forward & backward integration and diversification between 1st November, 2009 to 31st October 2014. No incentives are proposed for the industries in saturated category. The following table provides the classification of industries as per the categorization of the Industrial Policy (2009-14).

Table 19: Industrial Classification for promotional initiatives, Industrial Policy (2009-14), Chhattisgarh

Priority Sectors	Core Sectors	General Category	Saturated
<ul style="list-style-type: none"> Processing of Herbal and medicinal plant Automobile, auto components Cycle & product/ spares/ accessories used for manufacturing of cycle Plant/machineries& its spares Downstream product based on non-ferrous metal Industries based on agriculture & food processing defined by GoI (Except rice mill) Branded dairy product (Including milk chilling) Pharmaceutical industry White goods, electronic & electrical consumer goods Industries falling under Information technology and IT enabled Services, Bio-Technology and industries falling under Nano Technology 	<ul style="list-style-type: none"> Cement/ Clinker Plant Integrated Steel Plant Alumina/ Aluminium Plant Thermal Electricity Plant 	<ul style="list-style-type: none"> Eligible industrial units not covered under the industries of saturated category, priority sector industries and core sector industries. 	<ul style="list-style-type: none"> Stone crusher, manufacturing of ballast (gitti) Coal and Coal briquette, coal screening (except coal washery) Lime powder, lime chips, dolomite powder and all type of mineral powder Crushing, grinding and pulverizing of all type of minerals Manufacturing of Lime Industry based on the pan masala, supari and other

<ul style="list-style-type: none"> Industries relating to Seri culture, horticulture, floriculture, bio fertilizer, pisciculture Textile Industry (Spinning, weaving, power loom and Fabrics & other process) Processing industry based on forest products Products/equipment/spares used by Indian railway, telecommunication, defense, aviation companies and space department Power generation from non-conventional sources Defense, Medical & Laboratory equipment Village Industries (approved by Rural industries department) Such other industries as notified by the State Government <p>Product Based Industries</p> <ul style="list-style-type: none"> HDPE bags and Pipes Molded furniture, containers and P.V.C. Pipes & fittings Transmission line tower/mobile tower and their spare parts/equipment Automatic agricultural equipment & tractor based agricultural implements Metal powder Industries based on bamboo Industries based on Shellac Fly ash product (except cement) Readymade garment (only for industries established in apparel park) Single super phosphate and other fertilizers 100% export oriented Industry Bio-diesel Production. Cold rolled strips profiles and fittings Wagon coach spares and fittings Cutting tools dyes and fixture Cutting and polishing of Paving stone Such other product as notified by the State Government 	<ul style="list-style-type: none"> tobacco Polythene bags (excluding H.D.P.E.) Alcohol, distillery and Beverage based on Alcohol Sponge Iron Rice Mill Mini Cement plant/clinker Industries based on crackers, Matches Aatishbaji Ara Mill (Saw Mill) Leather tannery Job Work (Except job work done by Micro industries) Industry established by Public undertakings of Government of India, State Government or any State Government (excluding joint undertakings with private companies) Such other industries as notified by the State Government.
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Source: Industrial Policy (2009-14), Commerce & Industries Department, Government of Chhattisgarh

Apart from the promotional initiatives outlined by the state industrial policy, following policies have also been declared by the Government of Chhattisgarh for promotion of specific industries:

Automotive Industry Policy, 2012

Automotive Industry Policy effective from 1st November, 2012 for five years (i.e. up to 31st October, 2017) aims towards promotion of the establishment of automotive industries and encourage the establishment of non-core sector industries. The key objectives of the Automotive Industry Policy, 2012 include:

- ♦ To take initiative for promotion of non-core sector in the State to encourage establishment of non-core sector industries in future.
- ♦ To fetch an investment of minimum Rs.20,000 Cr. in the sector of automotive industries so as to create 20,000 additional employment opportunities during next ten years.
- ♦ To encourage establishment of micro, small, ancillary and medium industries in large number with the help of automotive Industry sector in the State, so as to create direct and indirect employment opportunities and to promote local entrepreneurship.

Agro and Food Processing Industries Policy, 2012

Agro and Food Processing Industries Policy, 2012 effective from 1st November, 2012 for five years (i.e. up to 31st October, 2017) is declared in the state in an effort to encourage the value addition of rich natural agro & food Products of the state. Agro and Food Processing Industries Policy is enacted in the state despite sectors like “Automatic agricultural implements”, “Tractor based agricultural implements”, Sericulture, Horticulture, Bio- fertilizer, Floriculture, Pisciculture, Food processing and Agro based industries (excluding Rice mill) as defined by Government of India being already listed as the Priority sector in the Industrial Policy of the state. The primary objective of the policy is to make the sector investment competitive in comparison to the other states and lead the State in the food processing industries apart from generating new opportunities of employment and self-employment. The key objectives of the Agro and Food Processing Industries Policy, 2012 include:

- ♦ To enhance the income of farmers of the State.
- ♦ Value addition of the Agriculture produce, Fruits & Vegetables and Pulses & Oilseeds in State.
- ♦ Generation of new opportunities of employment in the agro and food processing sector.
- ♦ Provision the secured storage for Agriculture produce, Pulses & Oilseeds and Fruits & Vegetables etc. in the State.
- ♦ Ensure better price of agriculture produce to the farmers of the state.
- ♦ Reduction in cost of production of the agro and food processing products and to make its marketing easy.
- ♦ Ensure availability of the food materials to the public of the State of good quality at justified prices.
- ♦ To encourage farmers of the State to diversify for farming of fruits & vegetables and other cash horticulture crops as alternatives of paddy by development of the Agro & Food Processing Industries.

Biotechnology Policy

Biotechnology has been identified as a thrust sector in the State's Industrial Policy. The Government envisages Biotechnology as another wave of technological revolution in the state after Information Technology as a strategic key for attaining socio-economic prosperity⁶⁵. The state being rich in terms of mineral resources and endowed with biospheres and varied forest types is well placed to put a significant thrust to the biotechnology sector. The biotechnology policy aims towards the following:

⁶⁵ BT Policy, Chhattisgarh

- Enable the communities of Chhattisgarh to get optimal advantages of the natural, bio-cultural & bio-knowledge heritage in a sustainable manner
- Create an environment where benefits of bio-resources are available to whether individually or as a community, and to involve in this enterprise all stakeholders, including knowledge professionals, entrepreneurs and technology leaders
- Contribute 5% of the biotechnology output of India by 2012
- Achieve substantial productivity gains & substantial reduction of risks to livelihood and environment in sectors relating to agriculture, forestry, animal husbandry and health, with the ultimate objective for ensuring food security and protection of the environment;
- Institutionalize major capabilities in biotechnology R&D with particular focus on the indigenous knowledge systems and their applications in furthering socio-economic growth
- Facilitate an environment for research through development of infrastructure, and acknowledgement through appropriate incentives
- Leverage convergence between various fields of related disciplines & provide benefits to society at large
- Facilitate growth of an Industry through provisions of high quality infrastructure with required support services for production including facilitation of flow of venture capital and bank credit
- Address issues such as Intellectual Property Rights, bio-safety, bio surveillance & bio-ethics.

Services

Following policies have been executed by the state government in order to promote Services sector with key thrust areas.

Information Technology and ITES Policy

Recognizing the importance of Information Technology in economic development and social development thereby enabling the quality of life, the Government introduced the IT and ITES Policy in the state. It is introduced to establish Chhattisgarh as the preferred choice for IT Investments in the country while simultaneously creating an enabling environment promoting thus robust growth of local IT industry in the State. The principle objectives of the Information Technology and ITES Policy include:

- To create job creators rather than job seekers
 - To establish Chhattisgarh as the leading destination of choice for IT investments
 - To provide an enabling environment for a robust growth of local IT industry in the state
 - Covering last mile for meeting last man's needs
 - Empower citizen and promoting public trust in government
 - Leveraging it for improving governance in the state
 - Planning and investing for the future IT requirements
 - Taking internet to masses for facilitating information access
 - Use it as an enabler for development in non-IT industries
- The following targets have been set by the state Government for achievement of above mentioned objectives:
- Ensure anytime and anywhere connectivity setting the stage for fostering a competitive IT Industry.
 - Provide all citizens widespread & easy access to government services at an affordable cost and in local language by setting up Integrated Service Delivery Centres across the entire state
 - 100% IT literacy in all schools, high schools and colleges in a phased manner
 - Promote entrepreneurs, increase investment and employment and contribute to India's IT output

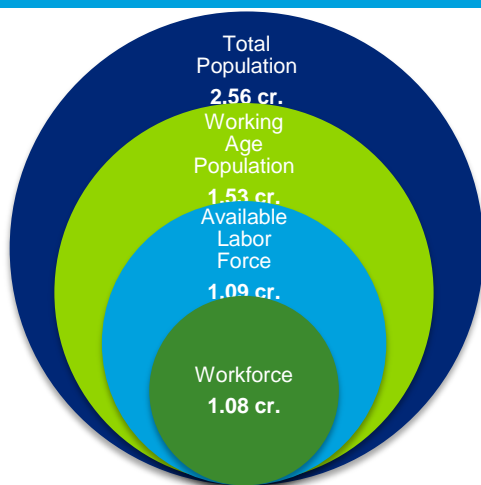
Tourism

Chhattisgarh state being bestowed with rich cultural heritage and natural diversity along with the presence of historical, archaeological and religious destinations makes it a preferred tourist destination. The tourism policy of the state government focusses on providing a thrust to the sector by improving the competitiveness of the sector. Some of the key objectives of the Tourism Policy include:

- Promote economically, culturally and ecologically sustainable tourism in the State.
- Integrated development of special tourism areas
- Promote private sector initiatives in developing tourism-related infrastructure
- Promote eco, adventure tourism, culture-heritage, pilgrim tourism, business , leisure and ethno tourism
- Increase the contribution of tourism to the economic development of inter-related sectors

3.3 Employment Profile

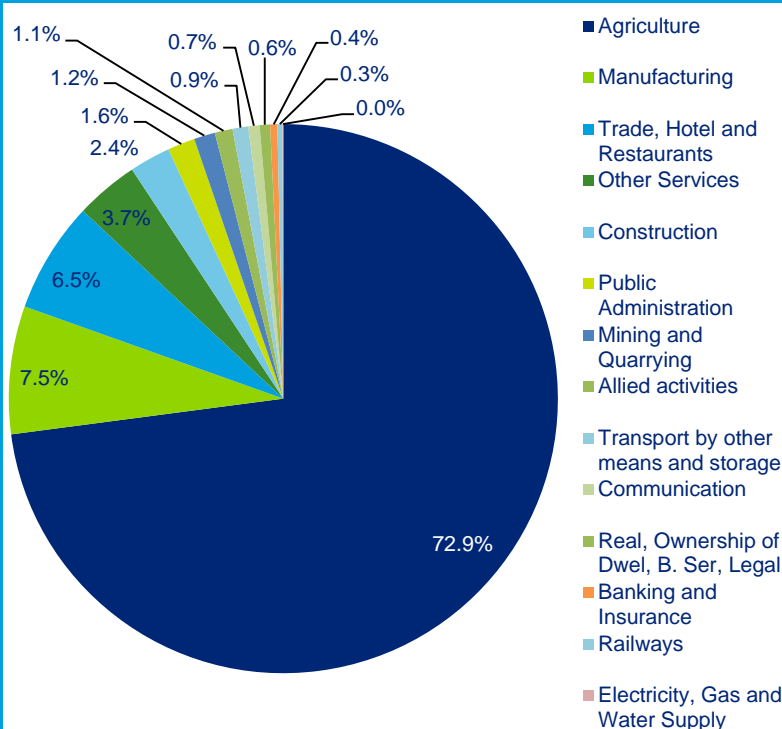
Figure 26: Total Workforce in Chhattisgarh (2011)



Source: Census 2011

Chhattisgarh State had a share of 1.16% in all India employment as on 31st March, 2011⁶⁶. Adjacent figure depicts the estimated workforce in Chhattisgarh in the context of the total state population. Out of the total population of 2.56 cr., the working age population (between 15-59 age group) constitutes 1.53 cr. or nearly 60%⁶⁷. Based on the labour force participation rate and the worker participation rate⁶⁸, the workers/workforce in 2011 among the working age population are estimated at 1.08 cr. or nearly 70% of the working age population. Agriculture sector is the highest employer in Chhattisgarh with about 72.9% of the total workforce engaged in the sector in 2012. The sector contributes around 19% to the Gross State Domestic Product (GSDP).

Figure 25: Sector wise employment in Chhattisgarh (2011-12)



Source: Deloitte Analysis

The Industry sector which has the highest contribution in GSDP in 2012 at approximately 42% employs around 11% of the total workforce. The Services sector has a share of around 39% in the state economic activity employing approximately 15% of the total workforce in Chhattisgarh in 2012. The adjoining figure presents the sector-wise employment profile of Chhattisgarh for the year 2011-12. As per the analysis, Agriculture is the key employment provider in state employing around 73% of the working age population in the state followed by Manufacturing sector (7.5%), Trade, Hotels & Restaurants (6.5%), other services (3.7%) & construction (2.4%). The top 5 sectors in Chhattisgarh account for around 93% of the total employment of workforce in state in 2012.

⁶⁶ Employment Review, Directorate General of Employment & Training, Ministry of Labor & Employment-Gol

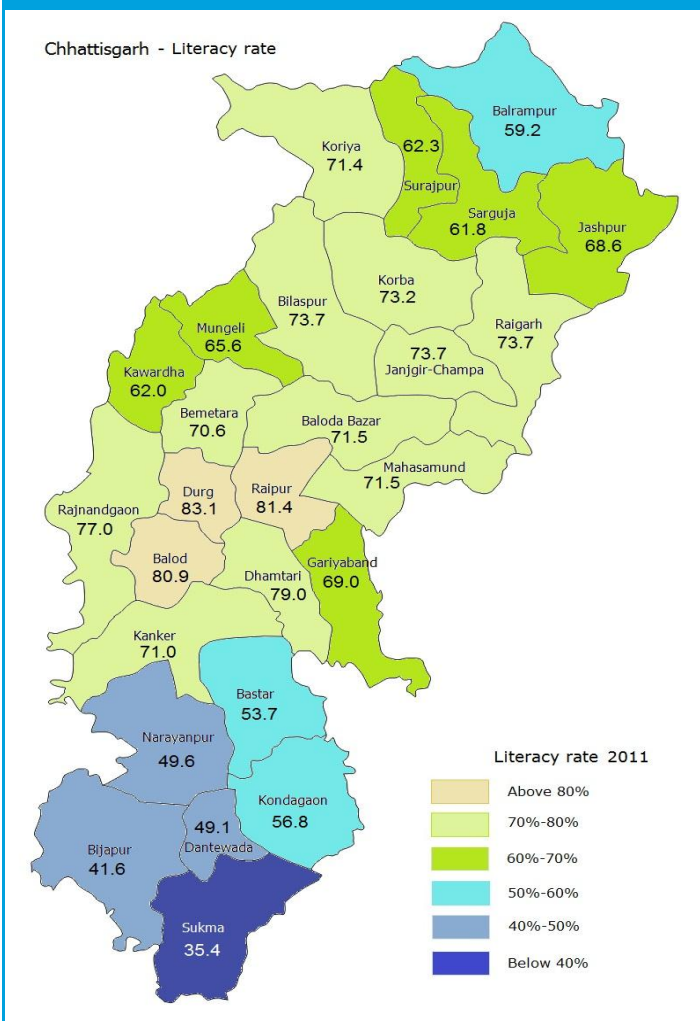
⁶⁷ Census 2011

⁶⁸ Key indicators of employment & unemployment in India, NSS 68th Round (July 2011-June 2012)

3.4 Education Infrastructure

The literacy rate in Chhattisgarh has improved significantly from 64.7% in 2001 to 70.3% in 2011 and is slightly less than the national average of 73.0%. In 2011, both male (80.27%) and female (60.24%) literacy rates registered an improvement over the decade. However, a significant disparity still exists in the urban-rural literacy share in the state with the latter being approximately 18 percentage points behind the former in 2011. Rural literacy was the highest in Dhamtari district at 77.57% followed by Durg (75.52%), Rajnandgaon (74.85%) and Janjgir-Champa (72.27%)⁶⁹. Dantewada (34.38%) recorded the lowest rural literacy rate followed by Bijapur (37.07%), Narayanpur (42.75%) and Bastar (50.37%) in 2011. The highest urban literacy in the state was registered by Kanker (87.47%) followed by Rajnandgaon (86.53%), Durg (86.13%) and Raigarh (85.67%) while Bijapur district registered the lowest urban literacy rate at 74.99% followed by Kabirdham (77.64%), Dantewada (79.32%) and Koriya (82.15%).

Figure 27: Literacy Rate, (%) Chhattisgarh



Source: Deloitte Analysis

Figure 28: Literacy rate 2011 (by residence), Chhattisgarh

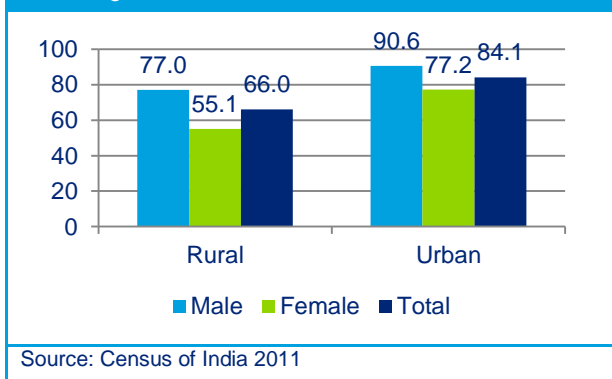
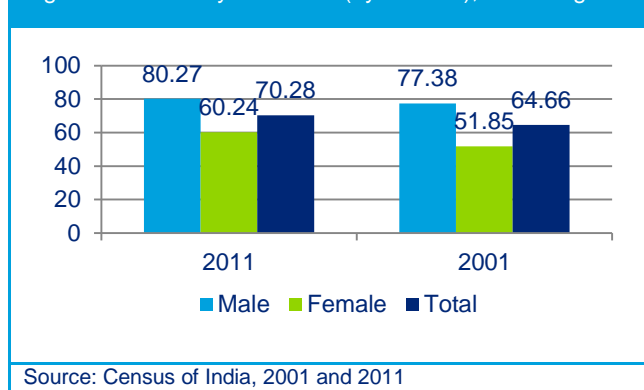


Figure 29: Literacy rate 2011 (by Gender), Chhattisgarh



⁶⁹ Census 2011

The general education levels of the population is low in Chhattisgarh, compared to the all-India levels, as indicated in the table below. Per 1000 men, 456 are educated up-to middle-school while per 1000 women; the proportion of illiterate is 413 comprising the largest proportion in terms of education levels. The next highest proportion is of secondary & higher-secondary school persons within males with 265 men (per 1000) while within females it is of middle school education with 390 women (per 1000). 78 men & 36 women were estimated to be graduates & above which is significantly lesser than all-India estimation (per 1000).

Table 20: Distribution of population (15 years and above) by education level (per 1000 persons), 2009-10

Education Level (per 1000)	Chhattisgarh			India		
	Male	Female	Person	Male	Female	Person
Illiterate	195	413	302	214	423	317
Literate up to middle school	456	390	423	422	346	385
Secondary and Higher Secondary School	265	159	213	259	169	215
Diploma/Certificate	7	1	4	15	6	11
Graduate and Above	78	36	57	90	56	73

Source: Status of Education and Vocational Training in India, NSS 66th Round

3.4.1 School Education

Chhattisgarh has a total of 58,230 schools with a total enrolment of 57.50 lakh students in the year 2011-12⁷⁰. Elementary education in the state has improved considerably largely due to the impact of the Sarva Shiksha Abhiyan. The Gross Enrolment Ratio (GER) in the state at primary level for 2010-11 was registered as high as 125% while at upper primary level it was 95.7%⁷¹. As on 2012-13, while there are around 15 primary schools/sections per thousand child population (6-11 years), approximately 12 upper primary schools/sections are present per thousand child populations (11-14 years) in Chhattisgarh. However, the density of schools per 10 sq. km is very low with only 2.89 primary schools & 1.33 upper primary schools per 10 sq. km in the year 2012-13⁷². As per DISE, In 2012-13, Chhattisgarh ranked 8th amongst all the states/Union Territories of India in terms of Educational Development Index (EDI) at primary level (with an EDI of 0.587) while at the upper primary level it ranked 25th (with an EDI of 0.577). The state ranked 22nd in terms of composite Educational Development Index (EDI) at primary as well as upper primary level amongst all the states and UT's of the country in 2012-13.

Table 21: Status of school education infrastructure in Chhattisgarh

#	Educational Statistics	Units in Chhattisgarh	Units in India	% Share of state
1	Primary Schools (I-V)	35,672	8,53,870	4.2%
2	Upper Primary Schools (VI-VII)	16,411	4,17,133	3.9%
3	Secondary Schools (IX-X)	2,487	1,06,546	2.3%

⁷⁰ DISE 2012-13

⁷¹ State Report Cards, 2011-12

⁷² DISE 2012-13: Flash Statistics

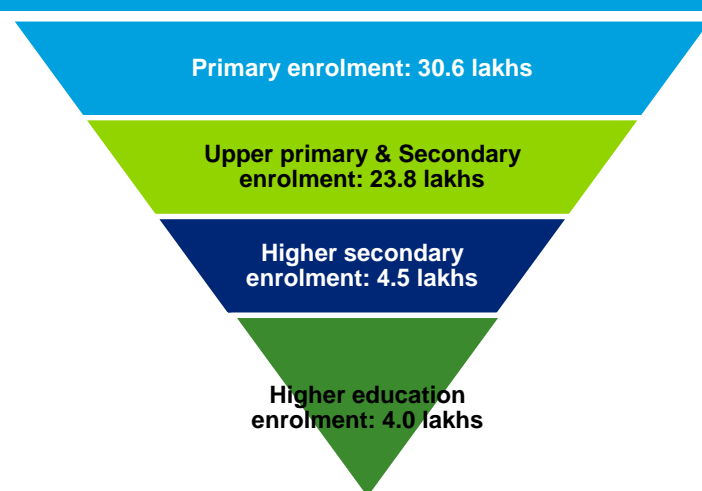
4	Higher Secondary Schools (XI-XII)	3,556	1,22,368	2.9%
5	Other Category and no response	164	847	
6	Primary Schools (enrolment)	30,57,283	13,47,84,560	2.3%
7	Upper Primary Schools	14,96,499	6,49,26,683	2.3%
8	Secondary Schools/Higher Secondary Schools	13,37,049	5,45,63,885	2.5%
9	GER (Primary) (2010-11)	110.9	106.0	-
10	GER (Upper Primary) (2010-11)	97.6	85.2	-
Source: State Report Card, 2012-13				

The enrolment of students in the Government management schools between primary (77.71%) and upper primary (81.30%) has increased in 2012-13. However, the percentage enrolment of students in privately managed schools has decreased between the primary (21.93%) and upper primary level (18.52%) in the same year.

As indicated in the adjacent figure, the enrolment figures for the year 2012-13 are 30.6 lakhs for primary education, 23.8 lakhs for upper primary and secondary education, 4.5 lakhs for higher secondary education and 4.0 lakhs for higher education.

The enrolment of boys and girls is almost comparable in the state. While the girls formed 49.09% of the total enrolment in school education at primary and upper primary level, the boys formed 50.91% of the overall enrolment. At the secondary and higher secondary level, the enrolment of boys and girls were 49.15% and 50.85% respectively.

Figure 30: Enrolment details in Chhattisgarh



Source: State Report Cards 2012-13; DISE; All India Survey on Higher Education 2010-11, MHRD

3.4.2 Vocational Education

Chhattisgarh has a total of 180 ITI's & private ITI's, of which, 129 are Government Industrial Training Institutes and 51 private Industrial Training Institute⁷³. Amongst the ITIs in the state, 8 are exclusively women ITI's present in Bilaspur, Bastar, Durg, Korba, Raigarh & Surguja districts⁷⁴. There are a total of 15 Polytechnics in the state.

⁷³ Directorate of Technical Education, Chhattisgarh

⁷⁴ DGET website (<http://dget.nic.in/lisdapp/nvtis/nvtis.htm>)

Table 22: Vocational Education in Chhattisgarh, 2012-13

Educational Infrastructure	Number of Institutes	Number of Courses Offered	Number of Units Affiliated	Total Capacity	Intake
ITI	129	58	1289	20,882	
Private ITI's	51	16	388	6,204	
Polytechnic	15	-	-	-	

Source: DGET and Directorate of Technical Education, Chhattisgarh

The following table highlights the courses offered in vocational education in Chhattisgarh, which currently meet the requirements of 19 sectors.

Table 23: Courses offered in vocational education, Chhattisgarh

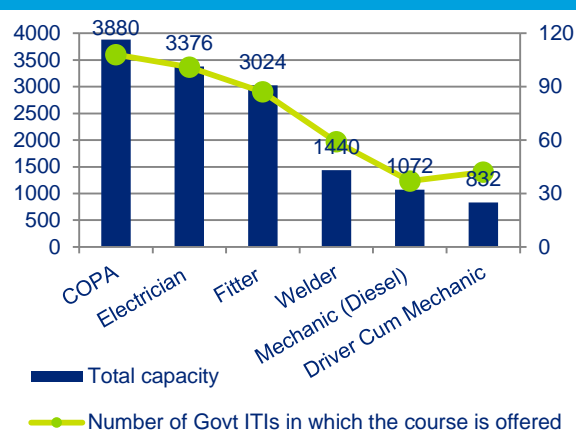
Sector	ITI trades and Units affiliated	Courses Offered by VTPs
<ul style="list-style-type: none"> Auto and auto components Electronics and IT hardware Chemicals and pharmaceuticals 	Automobiles(12), Draughtsman(Mechanical)(12), Electrician(445), Electronics(6), Electricals(36), Fabrication(12), Industrial Automation(12), Fitter(262), Forger and Heat Treater (1), Mechanic and machinist (140), Turner(23), Welder(127), Process Control and Instrumentation(12), Process Plant Maintenance(12), Production and Manufacturing(24)	Electrical, Electronics, Fabrication, Automobile, Automotive Repairs, Industrial Electrical, Production and manufacturing, Diesel Mechanic, Industrial chemistry, Chemical, Welder
<ul style="list-style-type: none"> IT and ITES Tourism, hospitality and travel Organized retail Media and entertainment Banking, financial services and insurance 	Computer Operator and Programming Assistant(232), Information Technology and Electronics System Maintenance(28), Desktop Publishing Operator(1), Stenography(47), Secretarial practice(5), Driver cum mechanic (52)	ICT, Soft skill, Banking & Accounting, Insurance, Business & Commerce, Hospitality, Media sector, Fashion design, Travel & tourism, Printing, Retail
<ul style="list-style-type: none"> Textiles and clothing Leather and leather goods Food processing 	Cutting and Tailoring(19), Dress Making(4), Knitting with hand machine(2), Rice Mill Operator(5), Preservation of Fruit & Vegetables(1)	Textile sector, Garment making, Toy making, Manufacturing of ethnic Indian foods, Sericulture, Textile silk, Leather and sports goods, Bakery & Confectionary, Fruit & Vegetable Preservation, Food processing and preservation, Meat Processing, Indian Sweets Snacks and Food
<ul style="list-style-type: none"> Infrastructure (Transport, Energy, Water & Sanitation, Communication, Social & Commercial) Building, construction and real estate Transportation, logistics, warehousing and packaging Construction material and building hardware Furniture and furnishing 	Architectural Assistant(2), Carpenter(11), Draughtsman(Civil)(15), Mason(Building constructor) (14), Sheet Metal worker(4), Surveyor(10), Moulder(5)	Construction, Material Management, Carpenter, Rain Water Harvesting, Renewable Energy, Courier and logistic
<ul style="list-style-type: none"> Healthcare Services Education and skill development Unorganized sector (particular reference to 	Hospital housekeeping (8), Library & Information Science(3), Dental Laboratory Equipment Technician(2), Health sanitary inspector(4), Physiotherapy Technician(2)	Medical & nursing, Paint, Refrigeration & Air conditioning, Beauty culture and hair dressing, Fisheries & Allied Sector, Security, Agriculture, Apiculture, Animal

agriculture, security, plumbing, domestic worker, foundry, etc.)	Miscellaneous and unorganized sector: Husbandry, Home decoration, Wood Work, Beauty Parlor, Bamboo Fabrication, Khadi, Fire, Jute Work, Plumber, Handmade Paper & Paper Products, Home Décor-Art Work, Clock & Watch Repair, Poultry, Glassware
	Horticulture(2), Plumber (2), Painter (1), Mechanic (Refrigeration, air conditioning, radio, television etc.) (29), Wireman(11), Interior decoration & designing (4), Mining Machine Maintenance(4)

Source: CSSDA Website

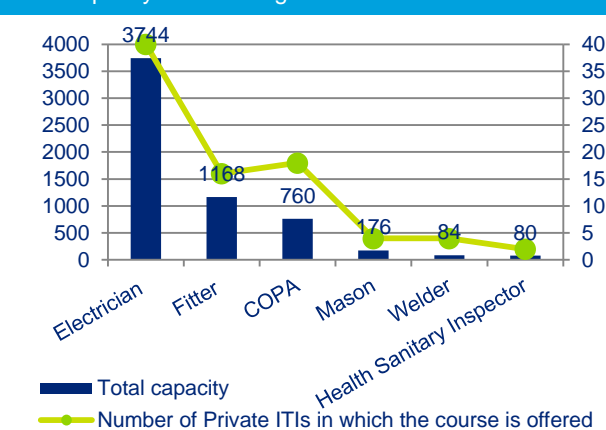
The major courses offered in the ITIs and their capacity in the state is given in the figure below:

Figure 31: Major courses offered in Govt ITIs and their capacity in Chhattisgarh



Source: Department of Higher and Technical Education, Chhattisgarh; Deloitte Analysis

Figure 32: Major courses offered in Private ITIs and their capacity in Chhattisgarh



Source: Department of Higher and Technical Education, Chhattisgarh; Deloitte Analysis

The adjoining figure indicates the annual intake capacity among ITIs and private ITI's per lakh population across all districts. It is interesting to note that most northern & southern districts of Chhattisgarh have a low annual intake capacity (below 150 per lakh population) except Bilaspur and Bastar respectively.

The districts of Kawardha (11), Sukma (26), Mungeli (33) and Bijapur (38) are the backward districts in this aspect, with substantially low annual intake capacity of vocational training per lakh population, relative to all other districts in the state.

Amongst all the districts, Durg (4260) has the maximum annual intake capacity in the ITIs/ private ITI's followed by Bilaspur (3052) and Raipur (2416). Sukma (64) has the lowest annual intake capacity in the ITIs/ private ITI's in the state.

Except the districts of Sukma (64), Narayanpur (72), Kawardha (88) and Bijapur (96), all other districts have an annual intake capacity of more than 100 students per lakh of population in its ITI's/ private ITI's. It may be noted that the private ITI's form only 29% of the total ITIs/ private ITI's in Chhattisgarh.

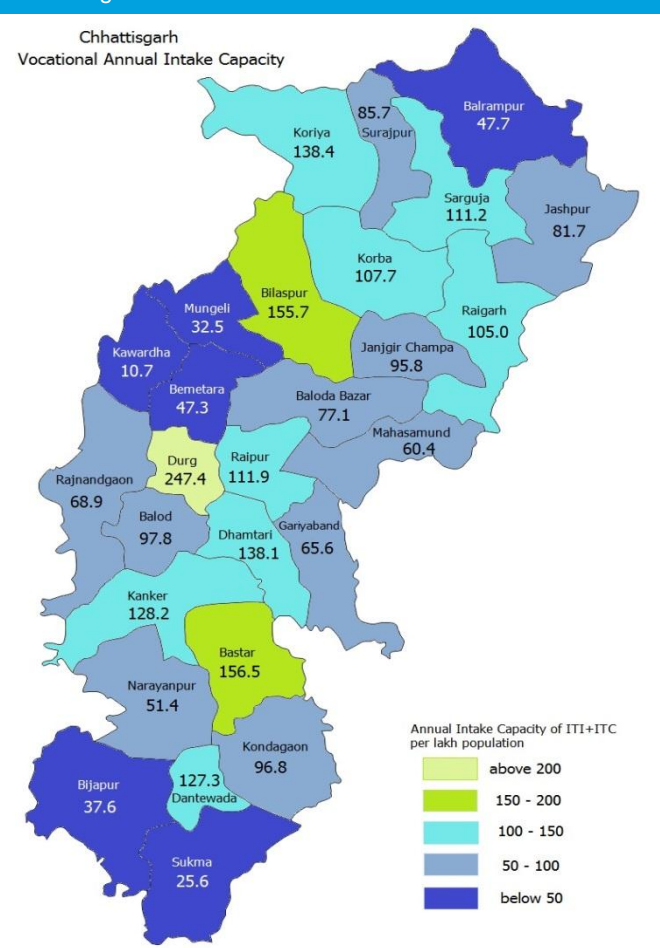
According to Chhattisgarh State Skill Development Authority (CSSDA) Website, as on as of 12th March, 2014, Chhattisgarh has a total of **1805 Vocational Training Providers (VTPs)** registered with CSSDA. A total of 77,338 beneficiaries have been registered with CSSDA for the purpose of skill development.

The following is the list of NSDC partners present in various districts of Chhattisgarh as on January 2014 along with the courses offered for providing vocational education in Chhattisgarh.

Table 24: NSDC partners present in Chhattisgarh

Partner	Sectors	District	Courses offered
AISECT	IT/Software	Baloda Bazar, Balrampur, Bastar, Bemetara, Bilaspur, Dantewada, Dhamtari, Durg, Janjgir-Champa, Jashpur, Kabirdham, Kanker, Kondagaon, Korba, Koriya, Mahasamund, Mungeli, Narayanpur,	<ul style="list-style-type: none"> ◆ Diploma in Computer Applications (DCA) ◆ Post Graduate Diploma in Computer Applications (PGDCA) ◆ Diploma in Computer Programming and Applications (DCPA) ◆ Diploma in Computer Education (D.C. ED) ◆ Certificate in Data Entry Operator (CDEO) ◆ Certificate in Office Automation and Internet (COA) ◆ Certificate in Computerised Financial Accounting (CCFA) ◆ Certificate in Word Processing / Typewriting

Figure 33: Vocational Training Intake Capacity in Chhattisgarh



Source: Deloitte Analysis

Partner	Sectors	District	Courses offered
		Raigarh, Raipur, Rajnandgaon, Surguja, Surajpur	(Hindi/English) (CWP) ♦ Diploma in Computer Teachers Training (DCTT) ♦ Certificate in Computer Applications (CCA)
	ITES-BPO	Baloda Bazar, Balrampur, Bastar, Bemetara, Bilaspur, Dantewada, Dhamtari, Durg, Janjgir-Champa, Jashpur, Kabirdham, Kanker, Kondagaon, Korba, Koriya, Mahasamund, Mungeli, Narayanpur, Raigarh, Raipur, Rajnandgaon, Surguja, Surajpur	♦ Certificate in Computer Applications (CCA) ♦ Certificate in Computerised Financial Accounting (CCFA) ♦ Certificate in Office Automation and Internet (COA) ♦ Diploma in Computer Applications (DCA) ♦ Diploma in Computer Education (D.C. ED) ♦ Diploma in Computer Programming and Applications (DCPA) ♦ Post Graduate Diploma in Computer Applications (PGDCA) ♦ Tally
	Electronics & IT Hardware	Janjgir-Champa, Kabirdham, Korba, Raigarh, Raipur, Surguja	♦ Advanced Diploma In Computer Hardware And Networking (ADCHN) ♦ Diploma in Electrical Technician (DET)
	Organized Retail	Raipur	♦ Sales Associate
Rooman Technologies, Bhilai	IT/Software	Durg	♦ MCSE ♦ System Admin ♦ Network Admin ♦ CCNA ♦ Diploma in Hardware ♦ RHCE ♦ MCITP ♦ MCSA
IL&FS Skills Development Corporation Ltd.	Tourism, hospitality and travel	Korba	♦ Certificate Programme for Food & Beverages
	Service Sector		♦ Certificate Program for Enrolment Operator
	Others		♦ Certificate programme for Basic Welding
	Engineering		♦ Certificate programme for Basic Welding
	Electrical Hardware		♦ Certificate Programme for Fitter
	Banking/Insurance and finance		♦ Certificate Programme for Electrician ♦ Certificate Program for Finishing Skills for Graduate ♦ Certificate Programme for Sewing Machine Operator ♦ Certificate Program for Finishing Skills for Graduate
Don Bosco Tech Society	Automobile / auto components	Jashpur	♦ Customer Relation Executive
	Automobile / auto components		♦ Automobile Repair
CAP Workforce Development Institute Pvt Ltd	Building and Construction	Kanker	♦ Basic Welding ♦ Electrician
	Organized Retail		♦ CRS
	Healthcare		♦ BSPA
	Electronics & IT Hardware		♦ WGS
PARFI	Automobile / auto components	Rajnandgaon	♦ Automobile
	Others		♦ Welding
TMI Group	Chemicals and pharmaceuticals	Raipur	♦ MDO Training Programme

Partner	Sectors	District	Courses offered
	Banking/Insurance and finance		♦ LIC-Rear Advanced
CWSI	Organized Retail	Raipur	♦ Floor Associate

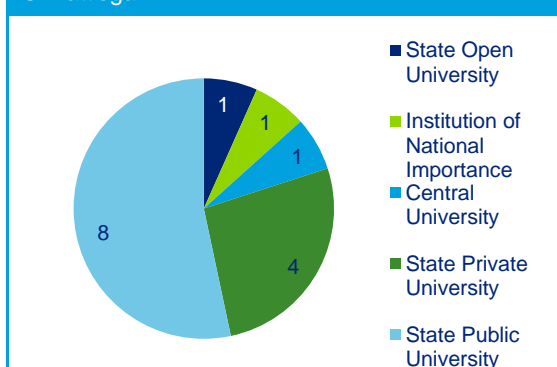
Source: NSDC

It may be noted that majority of the NSDC training partners in the state are located in the more industrialized districts like Durg, Raipur, Rajnandgaon & Korba. Currently, AISECT has training centres across 23 districts of Chhattisgarh.

3.4.3 Higher Education

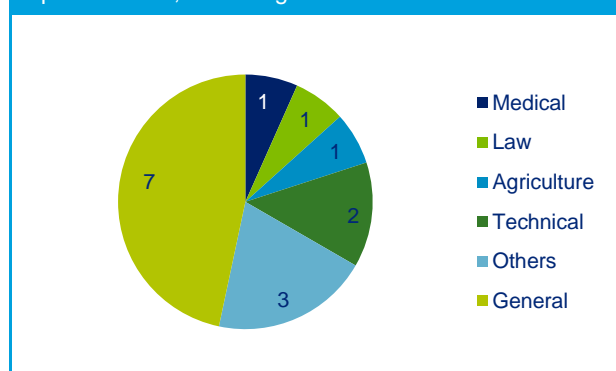
Chhattisgarh has a total of 15 universities, of which 12 universities are State level Universities (8 public & 4 private), 1 Central University, 1 University of national importance and 1 State Open University. Guru Ghasidas Viswavidyalaya is the only Central University in the state. With a share of 2.4% of the total Universities in the country, Chhattisgarh **ranks 18th amongst all the states of India**. The state also **ranks 7th in the country in terms of the total number of State private universities**.

Figure 34: Distribution of Universities by type, Chhattisgarh



Source: All India Survey on Higher Education, MHRD 2010-11

Figure 35: Distribution of Universities by Specialization, Chhattisgarh



Source: All India Survey on Higher Education, MHRD 2010-11

As per the All India Survey on Higher Education published in 2010-11 by Ministry of Human Resource Development, GoI, Chhattisgarh has a share of 1.7% of all colleges in India and **ranks fifteenth in terms of total colleges among the Indian states**. As depicted in the following table, there are 51 engineering/technology colleges in the state with a total intake capacity of 21323 students. Chhattisgarh state is still lagging behind other Indian states in terms of spread and intake capacity of various higher educational streams. In terms of educational institutes related to medicine, Chhattisgarh has just 3 medical colleges situated in Bilaspur, Raipur and Bastar district with a total capacity of enrolling 300 students. In the affiliated areas of medical education, the state has 49 Nursing colleges, 6 Dental colleges, 6 BPT and 8 Other Medical colleges with total intake capacity of 2776, 626, 424 & 497 respectively. There are only 9 law and 15 Management colleges in the state. In terms of access, Chhattisgarh has 20 colleges per lakh population as compared to the all India average of 23 colleges per

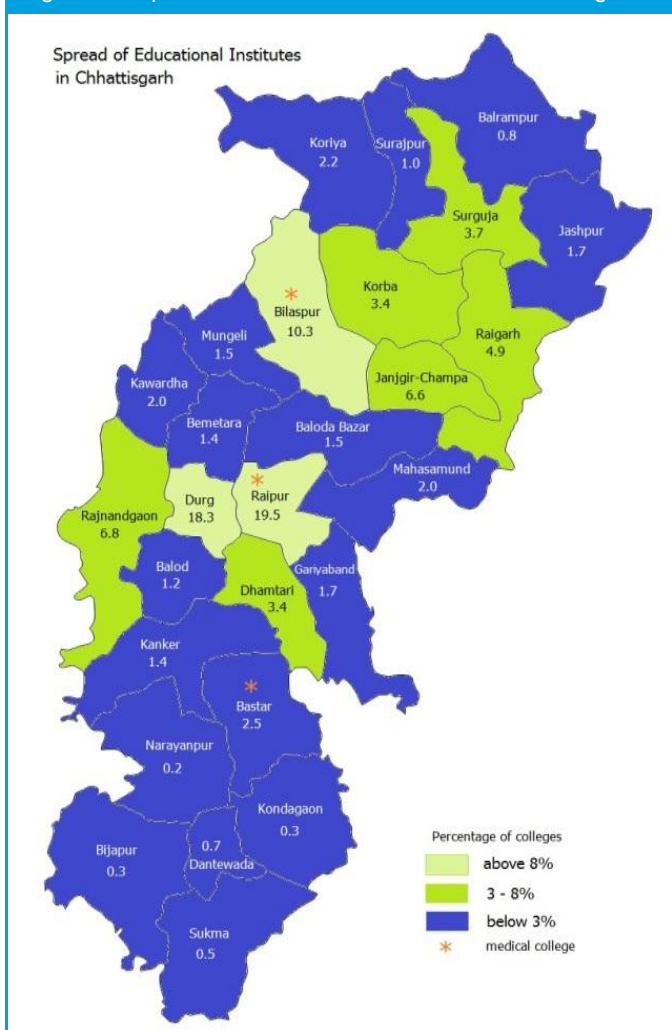
lakh population⁷⁵. The break-up of the number and capacity of higher education institutes in Chhattisgarh is given below.

Table 25: Number and Capacity of Higher Education infrastructure in Chhattisgarh

Program	Number of Institutions	Total Intake Capacity *
Arts, Science and Commerce	340	Not Available
Teacher Education	69	Not Available
Engineering/ Technology	51	21323
Nursing	49	2776
Agriculture	34	1601
Management	15	Not Available
Law	9	Not Available
Medical	3	300
Dental	6	626
Other medical	8	497
BPT	6	424
Polytechnic	15	Not Available
Source: College & University Websites		

⁷⁵ All India Survey on Higher Education, MHRD (2010-11)

Figure 36: Spread of Educational Institutes in Chhattisgarh



Source: Deloitte Analysis

Uneven Distribution of Colleges: The distribution of higher education institutes in the state is highly uneven. Most of the educational institutions are concentrated in the north-eastern and central part of the Chhattisgarh with very few institutions in the southern part of the state. The spread of the educational institutions in the state is a major barrier in terms of access to higher and technical education. Approximately 60% of the educational institutes in the state are located in the industrialized districts of Raipur, Bilaspur, Durg, Raigarh and Janjgir-Champa.

92% of all the engineering colleges in the state are located in Raipur, Bilaspur, Durg & Rajnandgaon districts. 20 out of the 27 districts in the state do not have a single engineering/technical college.

High Gender Parity Index: The higher education enrolment in the state indicates a significant gender disparity with only 40.6% of females enrolling in higher education as compared to the male enrolment at around 59.4%. The GER for males (15.8) is higher than the GER for females (11.4), resulting in the gender parity index of 0.72.⁷⁶ However, the gender parity index in Chhattisgarh is lower than the national average of 0.86.⁷⁷

Uneven Social Representation in enrolment:

As can be seen from the table below, the student enrolment in higher education is uneven across different social groups in Chhattisgarh. The social representation by different groups in higher education is significantly lesser than their proportionate share in population. The GER of SCs (11.3) and STs (5.4) is lower than the state GER of 13.6⁷⁸. The gender parity Index for SC is 0.84 and that for STs (0.83). Further disparity exists within the social groups between the male and female GER.

Table 26: Share of population and enrolment of different social groups in Chhattisgarh

Indicator	SC	ST	OBC
Share of Population	13.70%	37.50%	41.80%
Share of Enrolment	9.6%	11.7%	28.9%

Source: Share of population - Census 2011 & India Human Development Report 2011

⁷⁶ All India Survey on Higher Education, MHRD (2010-11)⁷⁷ All India Survey on Higher Education, MHRD (2010-11)⁷⁸ *ibid.*

3.5 Government Initiatives towards Skill Development

Skill development can be viewed as an effective instrument to improve the efficiency and overall input of labour to the production. Education & skill development has been emphasized as one of the top priority sectors in the 12th five year plan and has gained a significant place in the national as well as state action plans.

State level Skill Development Initiatives

The Chhattisgarh government has taken a number of initiatives to improve upon the current skill landscape of the state. Some of the key initiatives are highlighted below.

Chhattisgarh Right of Youth to Skill Development Act - Chhattisgarh Right of Youth to Skill Development Act provides for right to opportunities for skill development to every person between the age of 15 to 45 years residing in the State of Chhattisgarh, in any vocation of his/her choice consistent with eligibility and aptitude. It states that no youth shall be denied opportunity to get skilled in a vocation of choice from amongst the skills, as notified by the state authority, subject to possessing such eligibility as mentioned in the notification. The youth may make an application to the district authority or an officer designated by the state authority with regard to skill development which in turn would identify a vocational training provider and inform the applicant of the same within a maximum period of 90 days from the date of receipt of application.

Chhattisgarh State Skill Development Authority (CSSDA) - Chhattisgarh State Skill Development Authority (earlier known as Chhattisgarh State Skill Development Mission) has been provided the task of implementing the provisions of the Chhattisgarh Right of Youth to Skill Development Act. It was constituted in November 2009 and targets to train 12.5 million workforces for Skill Development / Skill Enhancement & Certification in the state by the year 2022 as against the National Target of 500 Million. For the purpose of skill development activities in the state, a total budget of Rs. 4.7 crores has been approved by the state towards CSSDA for the financial year 2012-13. Further, CSSDA has also been assigned as the Certification Authority for all kind of skill development training in the state.

Mukhya Mantri Kaushal Vikas Yojna (MMKVY) - Mukhya Mantri Kaushal Vikas Yojna is a state government scheme under the Chhattisgarh State Skill Development Authority which requires for convergence of all the central/state government skill development initiatives undertaken by different departments under CSSDA through a prescribed budgetary provision. The major guidelines of the scheme are as follows:

- Departments would bear the expenses incurred on skill development training initiatives of their beneficiaries. The training fee can be paid through CSSDA or directly transferred to the CSSDA recognized VTPs.
- All beneficiaries trained under the MMKVY scheme would be assessed by a third party evaluator as indicated by CSSDA. At present, the trainees would be evaluated by the agencies empanelled under the SDI Scheme by GoI.
- The candidate deemed successful after the third party evaluation would be provided certificates of successful completion by the CSSDA. The certificate issued by CSSDA is recognized by all the Government and private industries as well as banks for availing loans for self-employment.
- Candidates with prior experience/skill in a particular sector can be directly evaluated under the MMKVY scheme and issued certificates if found suitable.

- ♦ A database of all successfully trained beneficiaries would be maintained under the MMKVY Scheme.

The table below provides the select department wise skill development initiatives converged under the MMKVY scheme.

Table 27: Department wise select skill development training schemes converged under MMKVY Scheme

#	Name of the Department	Scheme
1	School Education	Computer Training Scheme
2	Technical Education	Other vocational training programmes for short duration
3	Agriculture	Training schemes organized under NABARD
		Training schemes under Rashtriya Krishi Vikas Yojna
4.	Forest	Training programmes for joint forest security committees
		Other departmental training schemes
5.	Health	Training schemes organized under the National Rural Health Mission
7.	Panchayat & Rural	Swarna Jayanti Gram Swarojgar Yojna
		Mahatma Gandhi National Rural Employment Guarantee Scheme
8	Women & Child Welfare	Training schemes for female SHGs
		Women empowerment schemes
		Special training schemes for female sex workers
Source: CSSDA		

Other State level skill development initiatives

Some of the other skill development initiatives in the state are as follows:

Table 28: State Level Skill Development Initiatives

#	Name of Scheme/ Sector	Key Highlights
1.	Apparel	03 Apparel Training & Design Centres by AEPC at Raipur, Bilaspur & Bhilai are functioning.
		02 ATDC at Rajnandgaon & Durg is in progress.
		02ATDC at Jashpur & Baloda Bazar are also in pipeline.
		Apparel Park in Raipur is in progress.
		More than 800 Candidates have been trained & ensured their placement.
2.	Chhattisgarh Nirman Academy (CNA)	The state has created Chhattisgarh Nirman Academy (CNA) in line with the National Construction Academy, Hyderabad in an effort to cater to the training needs in Construction Sector. Under this, more than 1000 Candidates have been trained & ensured their placement.
3.	Rural Self Employment & Training Institutes (R-SETI)	Rural Self-employment Training Institute (R-SETI) for providing Training to BPL youths for Self-Employment under SGSY has been established in all districts with the help of Lead Banks. A total of 1709 rural youth have been trained in Chhattisgarh out of which 1325 have been placed by R-SETIs ⁷⁹ .
4.	Handicraft	Chhattisgarh Handicrafts Development Board provides training in various fields of

⁷⁹ Lok Sabha Unstarred Question Number 2062, dated on 23.08.2012

	handicraft with an objective of providing employment to the traditional/non-traditional artisans, labor from the non-agricultural field, unemployed youth etc.
5. Prayas	Prayas is a residential school-cum-coaching institute for students of Left Wing Extremist's affected areas. Besides providing free education, the scheme gives funds for food, uniforms and other needs of students. At present, 300 students after psychometric assessment for engineering career are being given schooling & coaching by Dept. of Tribal development & welfare under the scheme ⁸⁰ .
6. Educational institutions as Skill & Entrepreneurship Development Centres (SEDCs)	Aims at developing educational institutions as Skill & Entrepreneurship Development Centres (SEDCs). As per CSSDA, more than 3000 Govt. & private educational institutions above high school level have been identified for developing as Skill & Entrepreneurship Development Centres (SEDCs).
7. Skill & Entrepreneurship Development Centres by Private Sectors by registering as VTPs	Targets to develop private players as Skill & Entrepreneurship Development Centres by registering as VTPs. As per CSSDA, it aims to develop 1000 centres as SEDCs with primary focus on the Construction, Automobile, Health, Agriculture Sectors and All Major, Medium Industries
Source: CSSDA Presentation	

Skill Development and Training Programmes of Central Government

Skill development has taken precedence in the central government schemes as well. Skill Development Initiative Scheme (SDIS) adopted by the Directorate General of Employment and Training (DGET), Ministry of Labor and Employment, Government of India is one of the major central government initiatives being implemented in the state.

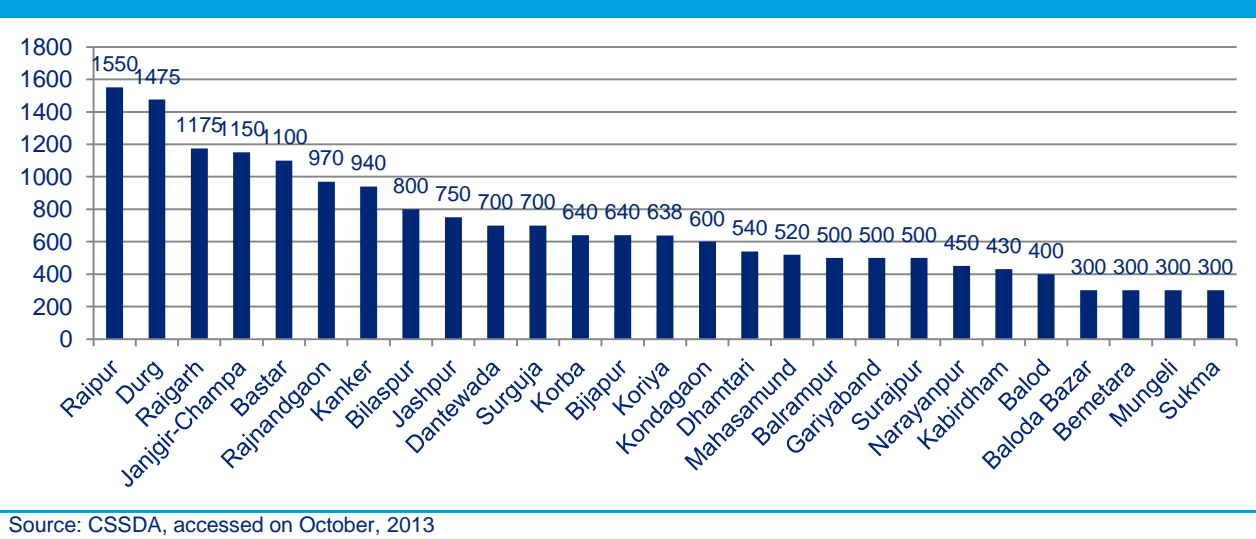
Skill Development Initiative Scheme - Skill Development initiative aims at providing employable skills to the school/college dropouts, existing workers, ITI graduates and similar others by optimally utilizing the infrastructure available in Government, private institutions and the industry. Its objective is to enable the unemployed youth to be gainfully employed. As per CSSDA, the following tasks are being undertaken for implementation of Skill Development Initiative Scheme in the state for training in MES courses:

- ♦ 91 Govt. ITIs have been registered as VTP, 18 Other Private Institution are Registered as Vocational Training Provider (VTP)
- ♦ All Government Institutions are being registered as VTPs
- ♦ All Eligible Private Institutions/ Societies etc. are being registered as VTPs
- ♦ More than 13,000 persons Registered/ Trained

District wise annual training target for Chhattisgarh under the Skill Development Initiative (SDI) Scheme of Govt. of India is provided in the table below. A total of 18,868 persons are proposed to be trained in the state in financial year 2013-14.

⁸⁰ CSSDA

Figure 37: District wise annual training target under Skill Development Initiative, 2013-14



Some of the major Central Government training schemes which are being implemented in the state are presented in the table below:

Table 29: Central Government Skill Development Initiatives in Chhattisgarh

Ministry/ Department	Schemes/ Programmes/ Institutions	Key Highlights
Ministry of Rural Development	Special Projects for Placement Linked Skill Development of Rural BPL youth under Swarna Jayanti Gram Swarozgar Yojana	<p>The Ministry of Rural Development has launched the scheme with an objective of ensuring time bound training aimed at empowering the young people from poor and weaker sections of the society. Some of the ongoing special projects for skill development leading to placement are:</p> <ul style="list-style-type: none"> • Special Project under SGSY for Skill Development of Rural Youth through Grameen LABS-Zone-5 (Central). • Special project under SGSY for skill development programme for BPL youth for employment in Security Sector in 12 States by SSCI. • Special Project under SGSY for Creation of jobs in Growth Sectors for Rural People including youth in the State of Chhattisgarh by National Centre for Advanced Training (NCAT). • Proposal for special project under SGSY for Skill Up-gradation Programme in Korba District, Chhattisgarh
	Rural Self Employment Training Institutes (R-SETI)	<p>It was launched with an objective of establishing committed skill development infrastructure in each district in the country aimed towards entrepreneurial development. Rural self-employment training institute for providing training to BPL youths for Self-Employment under SGSY has been established in all districts with the help of Lead Banks. A total of 1709 rural</p>

Ministry/ Department	Schemes/ Programmes/ Institutions	Key Highlights
		youth has been trained in the state out of which 1325 have been placed ⁸¹ .
	Aajeevika	Aajeevika - National Rural Livelihoods Mission (NRLM) was launched by the Ministry of Rural Development (MoRD), GoI in June 2011. The Mission aims at creating efficient and effective institutional platforms of the rural poor enabling them to increase household income through sustainable livelihood enhancements and improved access to financial services. Chhattisgarh Grameen Aajeevika Samwardhan Samiti has been formed to implement NRLM in the state. This society would act as the State Rural Livelihood Mission.
Ministry of Urban Development and Poverty Alleviation	Swarna Jayanti Shahari Rozgar Yojana (SJSRY) / National Urban Livelihoods Mission (NULM)	Supports for skill development and training initiatives for urban poor enabling them to have access to employment opportunities or undertake self-employment. As per the Ministry of Housing & Urban Poverty Alleviation, GoI, Chhattisgarh falls short of 2.25 crores in matching state's share released up to 2012-13.
Ministry of Human Resource Department	Vocationalisation of Education	Aims to strengthen vocational education in Classes XI-XII
	Community Polytechnic Scheme	The scheme targets the poor sections of society in rural and urban areas with focuses on promoting the exchange of science & technology to rural sector.
	Establishment of new Indian Institute of Information Technology in the PPP Mode	Aims to establish a model of education focused on producing best-in-class resources in IT domain.
	Jan Shikshan Sansthan (JSS)	These act as district level resources for undertaking vocational training & skill development programmes. The target group includes the poor, illiterates, neo-literates, slum/pavement dwellers & under privileged.
	National Institute of Open Schooling	Established to increase the outreach of education in remote areas and provide inexpensive education.
Micro, Medium and Small Enterprises	Prime Minister's Employment Generation Programme (PMEGP)	Generate employment opportunities through self-employment ventures/projects/micro enterprises. It provides margin money assistance to interested persons for setting up new micro enterprises in manufacturing or service sector with substantial credit extended by banks depending upon the project cost and location/category of the beneficiary.
	Promotion of Khadi Industries	Budgetary allocation under Khadi grant or promotion and development of khadi, and financial assistance for revitalization of KVI institutions
	Other Village Industries	Promotion and development of village industries through technology up gradation, improved market access through facilitating participation in exhibitions at International, National, State and District levels

⁸¹ Lok Sabha Unstarred Question Number 2062, dated on 23.08.2012

Ministry/ Department		Schemes/ Programmes/ Institutions	Key Highlights
Health & Family Welfare		Multi-purpose Health Worker Training Centres (men & women)	Aims at providing basic training to health workers in the state.
	Textiles	Integrated Skill Development Scheme (ISDS)	Launched with an objective of catering to the skilled manpower needs of textile and related segments through skill development training programmes. As on October 2012, a total of 1420 people have been trained under the scheme in the state.
Agriculture		Soil Conservation Training Centre	Aims at training people in Soil & Water Conservation and Hydrologic & Sediment Monitoring.
		Training in agriculture extension	Provides training to farmers at agricultural extension centres.
Food Processing		Food Processing Training Centres (FPTC)	Aims at training resources in the area of food processing.
Labor and Employment		Centre of Excellence Scheme (CoE)	Aims to upgrade select ITIs into Centres of Excellences. A total of 22 Govt. ITIs are up graded in the state under the CoE Scheme with Central Assistance ⁸² .
		Up gradation of ITIs under the Public Private Partnership Scheme	The objective of the Scheme is to improve the quality of vocational training in the country in an effort to ensure better employability of graduates .A total of 42 Govt. ITI's up graded under the PPP Scheme with Central Assistance ⁸³ . As per CSSDA, while SECL, Bhilai Steel Plant (SAIL) & NTPC were the major public sector industry partner for up gradation of ITI's, Jindal Steel & Power Ltd, Monnet Ispat & Power, ACC Cement etc. were the major private alliances.
		Craftsmen Training Scheme	Establishment of Industrial Training Institutes (ITIs) for imparting skills in various vocational trades to meet the skilled manpower requirements in the country.
Source: Respective Department Websites			

Entrepreneurship Development Initiatives

MSME Development Institute (DI), Raipur - The MSME DI in Raipur conducts multiple product-cum-process oriented programs like Entrepreneurship Skill Development programmes (ESDPs), Entrepreneurship Development Programmes (EDPs), Industrial Motivation Camps (IMCs), BSDPs etc. for different groups of unemployed youth, people from weaker sections of the society, minorities, Scheduled Castes & Scheduled Tribes, technocrats, etc. with an objective of developing entrepreneurial qualities and preparing new entrepreneurs to setup their own small enterprises.

- ♦ As per the annual report 2012-13, MSME-DI, Raipur conducted 38 ESDPs, 54 IMCs, 14 EDPs, 10 MDPs on different subjects like mobile repairing & servicing, two wheeler repairing and servicing, electronic goods repairing & servicing, garment manufacturing etc.

⁸² CSSDA

⁸³ ibid.

State Investment Promotion Board (SIPB) - State Investment Promotion Board, Raipur aims towards the establishment of an Entrepreneur Development Cell within SIPB for maximum and optimum utilization of available human resources, creating interest towards industries amongst the youngsters and imparting training related to self-employment plans.

3.6 Youth Aspirations in Chhattisgarh

Youth population constitutes the most important demographic section of a society from a skill development perspective. In light of the changing manpower requirements of the industry, it is important to understand the aspirations of the youth with regard to education, career preference, job location etc. so that suitable initiatives can be undertaken to meet both.

Aspirations of the youth were captured through Focus Group Discussions (FGD's) along with youth surveys held in all 27 districts of the State.

In terms of gender representation, around 58% of the participants across the state were males while the remaining 42% were females. 50% of the respondents were in the age group 15-20 while 42% of them were between 21-25 years. Remaining 8% of the participants of the youth survey were 26 years and above. The educational qualification of about 61% of the participants was high-school level or below. Around 21% of them were graduates and above with the remaining 18% participants being certificate/diploma holder.

The key observations about aspirations of the youth of the state are highlighted below.

Table 30: Youth Aspiration – Key Responses - Chhattisgarh

Parameters	Responses
Job Preference	Majority of the youth surveyed are currently working with private organizations. However, they prefer Government/ public sector jobs over private jobs due to the job security, employee friendly policies, pensions and other benefits offered in such jobs. Most of the students prefer to be employed in established and renowned organizations like CSEB, SAIL, NTPC, SECL, BALCO etc. as it offers them better job profile, salary, job security and employer friendly environment.. A very small proportion of the youth expressed an interest in self-employment with the majority being inclined towards regular/ salaried employment.
Factors influencing selection of training institution	Institutions are selected by the youth on the basis of employment opportunities available post training, the quality of education offered by the training institute, institute's infrastructure, proximity to home, availability of seats/ subject of interest and financial considerations.
Preferred Course	<ul style="list-style-type: none"> • Training for job readiness appears to be most popular among the youth in the state. Apart from the regular courses offered by the educational/ training institutions; bridge courses like spoken English, basic communication skills, personality development, soft skills & basic IT skills are considered to be very important by the youth which they feel is one of the most important element to get a job. • Computer related courses like COPA (Computer Operator and Programming Assistant), BCA (Bachelor of Computer Application), DCA (Diploma in Computer Application) & PGDCA (Post Graduate Diploma in Computer Application) are the most preferred courses amongst the youth. • Boys also expressed interest in trades of Electrician, Fitter, Welder and Tally course. • Girls indicated preference for courses in Textiles & garments, Beautician and Office Assistant/ Stenographer.
Migrating for job	Most of the youth (esp. rural youth and women) prefer jobs within the district . Though men are willing to take up jobs outside the district on account of better employment opportunities, women preferred to work within the district.
Salary Expectations	Average monthly salary expectation of youth at a starting level ranges between Rs 10,000

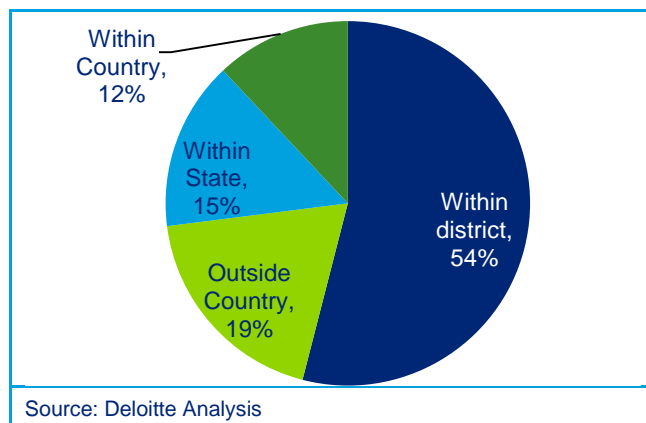
Parameters	Responses
	–20,000/-
Areas of concern/ aspirations- Infrastructure	<p>Following views were expressed regarding infrastructure of the educational institutions:</p> <ul style="list-style-type: none"> • Youth reported poor quality of infrastructure in the institutes in terms of books in the library, building, laboratories etc. • The inadequacy of computers in schools and non-functioning of those available was also highlighted. • The youth emphasized the requirement of separate and clean washrooms in the institutes for boys & girls. • They also expressed the need for electricity and clean drinking water facility in the institutes. • The labs & workshops in the colleges should be upgraded and sufficiently equipped as per the total students enrolled. They highlighted the need to increase the number of equipment (esp. computers) in accordance with the strength of the students. • Rural youth expressed a need for good transport system in order to facilitate improved access to the institutes.
Areas of concern/ aspirations-Course Curriculum	<ul style="list-style-type: none"> • Youth expressed that the current curriculum should be modified as per recent industrial requirements with an objective of making it more job oriented. • They suggested inviting guest lecturers/visiting faculty from industry for providing inputs on the latest trend in the sector. • They also requested that the local industries should train people on apprenticeship/ intern model to improve future job prospects. • Majority of the youth emphasized that institutes should focus more on soft skill/ personality development courses and language training.
Other concerns	<ul style="list-style-type: none"> • It was learnt that youth are not fully aware about the newly introduced Govt. initiatives on skill development such as VTPs (MES/ SDI scheme), NSDC training partners and Star Scheme. • Majority of the youth expressed their concern over the delays in examination / certification process and requested that it should be conducted immediately after training. • Moreover, concerns over course completion within the stipulated time frame were also raised.
Suggestions given by youth	<ul style="list-style-type: none"> • The youth expect Govt. to take up initiatives to improve their institutional infrastructure. • Youth expressed that Government should take measures to provide sufficient vocational education facilities to the poor/ underprivileged people. • The Government should provide more trades in existing institutes and increase choice for students. • There should be more courses, practical classes, resourceful, efficient and regular teachers available in the institutes. • Counseling before taking admission in any course was suggested by the youth so that they can understand and choose the proper career path. • The youth expressed the need for better industrial tie-ups for training, internship, apprenticeship and placements in the state. • Certificates should be issued through a short and simple process after the training. • English, Hindi or both must be used as the medium of teaching in the institutes.

Sample survey was conducted with youth at gram panchayat level & those coming out from various educational institutions (Government & private) to understand & capture their aspirations. The key findings are presented below:

Figure 38: Job Preference by Youth

Job preference by youth

The majority of the youth surveyed (54%) **prefer to get a job within their home district** as is evident from the adjacent figure. Approximately 19% of them preferred to get a job outside the country. Approximately, 15% of the youth surveyed desire to work within their state of residence indicating thus that around two third (69%) of the **youth surveyed prefer to get employment opportunities within Chhattisgarh**. The survey reveals an interesting

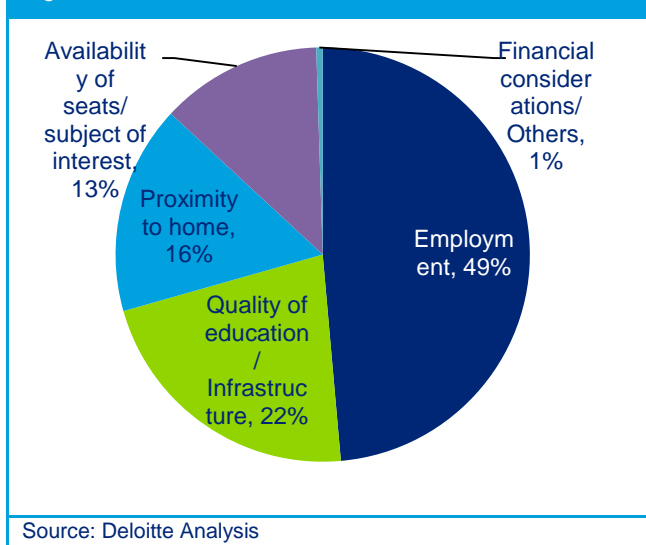


fact that majority of the youth surveyed are not attracted to migrate out of state in search of jobs. It implies the necessity and requirement of the creation of suitable positions and absorption capacity by the state government for youth within Chhattisgarh for ensuring productive employment opportunities.

Parameter for Institute Selection

A majority of the students surveyed (49%) in the state choose institute for higher education on the desire of landing better employment/job prospects post education. Around 22% of the students surveyed make their choice on the basis of the quality of education offered by the institute along with its reputation or its infrastructure while selecting an institute for higher education. For 16% of the respondents (esp. girls), proximity to home is an important parameter to select an institution of higher education while another 13% students choose an institute based on their subject of interest or availability of seats in a particular stream. It is important to note that only 1% of the students surveyed make the choice of institute based on financial considerations. This indicates that financial inability is not a reason for students to select institutes revealing that there is no issue around affordability for the student.

Figure 39: Parameter for Choice of Institute



Youth Perception Mapping

Youth perception was analysed and mapped to understand the level of satisfaction of youth with either their current institute or their experience and feedback on the available educational infrastructure in the state. The results of the youth perception mapping are summarized below.

1. Low satisfaction with placement / jobs available post training: Around 57% of the students surveyed expressed their dissatisfaction with the placement opportunity provided by the institute or jobs available post training in their respective district. Approximately 29% of the respondents feel the job opportunities available post training to be satisfactory. The students shared their expectation of being provided with placement opportunity by the institute. They also requested the state government to facilitate industry tie-up with nearby companies to give them an experience of

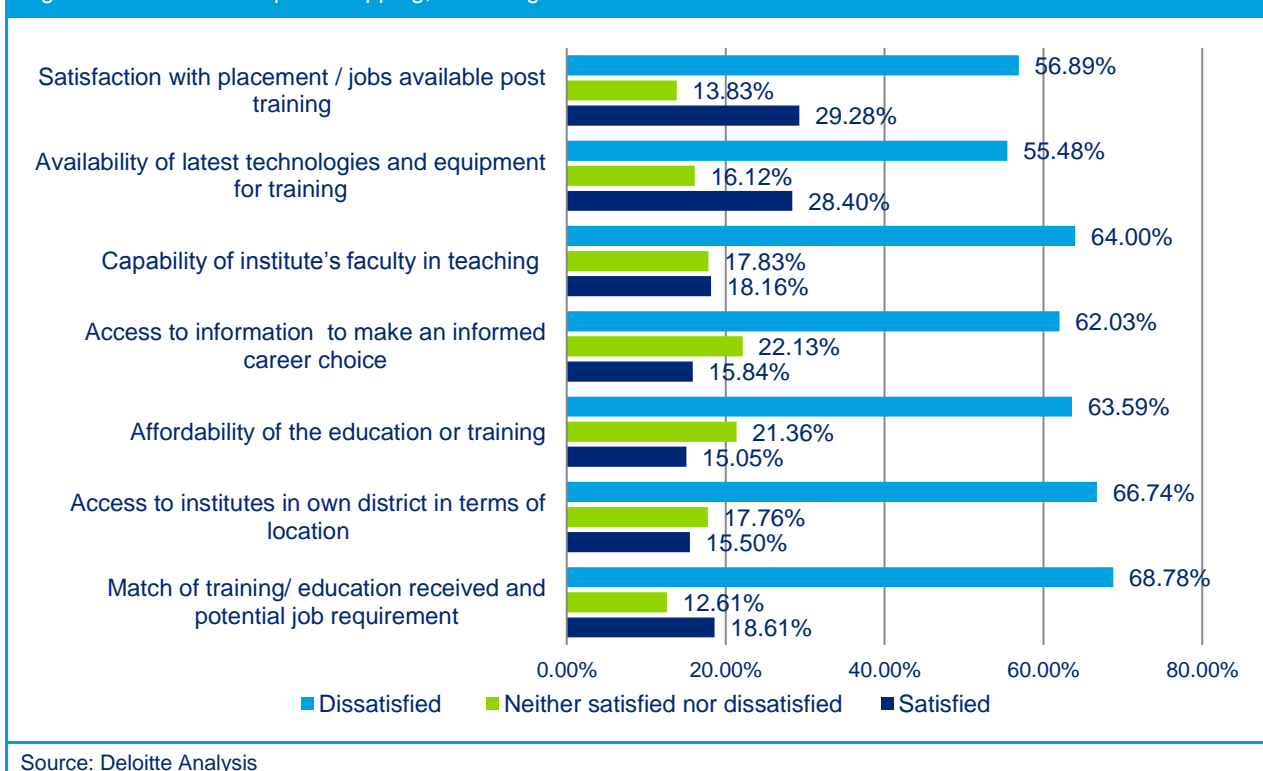
apprenticeship/internship/On the Job training.

2. Non-availability of latest technologies and equipment for training: 55% of the students surveyed expressed their dissatisfaction with the availability of latest technology & equipment for training in the institute while only 28% of them shared their satisfaction with the same. They felt the lack of equipment as a major constraint for their knowledge enhancement and appropriate level of skill development. The students highlighted the need for adequate number of computers and equipment in the institute for training. They demanded that the institutes should be adequately equipped and upgraded with the latest technology.

3. Dissatisfaction with capability of institute's faculty in teaching: Around 64% of the youth surveyed (especially the students from Government colleges) feel the **quality of teaching by faculty** in their institute is not satisfactory and needs significant improvement. They demanded the number of faculty to be increased as per the course requirement and student enrolment. They suggested inviting guest lecturers/visiting faculty from industry for providing inputs on the latest trend in the sector. Moreover, the youth suggested periodic training for their current trainers.

4. Need for better access to information to make an informed career choice: Around 62% of the students surveyed were dissatisfied with their access to information to make an informed career choice. Moreover, the majority of the youth surveyed were also unaware of the various skill development initiatives being implemented in the state. The concern was raised more by the rural youth who reported the **absence of appropriate facility/ linkages and thought leaders/ guides in their locality to get suggestions and guidance on career**. This highlights the need and importance of having career counselling to potential students either at the school level or at the vocational institutes. It also indicates **necessity of arranging awareness programs** for the youth on the various skill development initiatives.

Figure 40: Youth Perception Mapping, Chhattisgarh



5. Affordability of the education/training a concern for the students: Majority of the students surveyed (around 64%) felt that the fee charged by the education/ training institute is a concern for them. Though the choice of institute of higher education is not dominated by the financial considerations; however, the majority of the respondents emphasized on inclusion of the provision of scholarships/fee concessions and waiver to the BPL or underprivileged candidates. Moreover, the youth also stressed that the quality of training programmes offered should be commensurate with the fees charged.

6. Access to institutes is an issue in rural areas: Around 67% students surveyed felt their educational institutes to be inaccessible in terms of location and majority of them were rural youth. Approximately 16% of the students surveyed expressed their satisfaction with the accessibility of the educational institutes in terms of location. They found the institute to be located in an accessible area and safe in terms of the duration of classes. The rural youth voiced the government to support them by arranging suitable transport facility.

7. Dissatisfaction with the alignment of training/education received with job requirements: Approximately 69% of the youth surveyed feel that the training/education currently provided by the educational institutes in the district is not in alignment with the job requirements of the business. Only 19% of the youth felt that the training/ education received by them matches the potential job requirements of the employers. Thus, the survey brings out the need to make the required changes in the course curriculum and make the same more application based and industry relevant.

Key Observations:

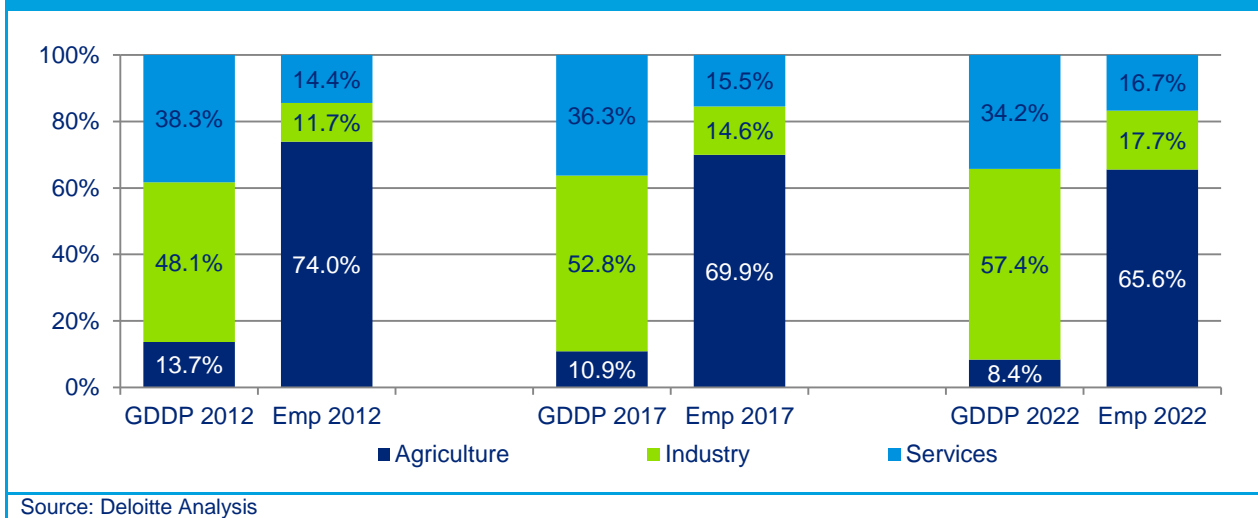
- ♦ Majority of the youth prefer Government jobs over private jobs due to the job security, employee friendly policies, pensions and other benefits offered in a Government job. Most of the students prefer to be employed in organizations like CSEB, SAIL, NTPC, SECL, BALCO etc. as it offers them security of employment. Average monthly salary expectation of youth ranges between Rs. 10,000 –20,000/-
- ♦ Majority of the youth surveyed (54%) prefer to work within their district of residence. The proportion is higher for females and rural youth who do not prefer to migrate outside district in search of employment opportunities.
- ♦ Training for job readiness appears to be most popular amongst the youth in the state. Apart from the regular courses offered by the educational/ training institutions; bridge courses like spoken English, basic communication skills, personality development, soft skills & basic IT skills are considered to be very important by the youth which they feel is one of the most important element to get a job.
- ♦ Computer related courses like COPA (Computer Operator and Programming Assistant), BCA (Bachelor of Computer Application), DCA (Diploma in Computer Application) & PGDCA (Post Graduate Diploma in Computer Application) are the most preferred courses amongst the youth. Boys also expressed interest in trades of Tally, Electrician, Fitter and Welder. Girls indicated preference for courses in Textiles & garments, Beautician and Office Assistant/Stenographer.
- ♦ Youths emphasized the need for appropriate modification of the current curriculum as per industrial requirements with an objective of making it more job oriented. They also highlighted the need for upgrading the equipment/technology as per the latest version.
- ♦ Majority of the youth are not aware about the CSSDA initiatives on skill development being undertaken in the state indicating thus a need for awareness campaigns in Chhattisgarh.

3.7 Skill Gap Assessment

Manpower Demand

The working age population (15-59) is 1.53 crores, constituting 60.1% of total state population in 2011, is expected to increase to 1.87 crores making it 63.4% of the total state population by 2022. The figure below projects the share of economy and employment by sectors of the Chhattisgarh economy at the end of 11th, 12th and 13th Five Year Plan.

Figure 41: Comparison of Sectoral share in GDDP & Employment, Chhattisgarh



In 2012, the Agriculture sector accounted for an estimated employment of 90.6 lakh workers (nearly 3/4th of the workforce). It is expected to continue to play a significant role in terms of providing employment in the state. However, in terms of both output and employment, the Agriculture sector is expected to continue to relative decline over the decade though there is absolute increase. The share of employment in 2021-22 in the Agriculture sector is expected to decline to roughly 2/3rd as compared to 3/4th in 2012 while witnessing an absolute increase of around 9.6 lakhs reaching to around 1 cr of workers in 2022.

The relative share of employment in Industry and Services sector are estimated to increase to 17.7% and 16.7% respectively on account of economic growth and consequent increase in opportunities, as indicated in the table above. This trend appears to be in line with the national trend as well. In terms of absolute increase, industry and services sectors are projected to provide additional 12.9 lakh and 7.9 lakh jobs respectively during the period 2012-22.

The above figure also depicts the significant disparity in the structures of economy and employment in the state. It shows that the Agriculture sector employs the largest share of workers. However, its relative contribution to the economic output is the least resulting in very low output per worker. The output per worker in Industry sector, which is already 22.3 times that in Agriculture sector, is expected to increase significantly (CAGR of 4.1% for period 2012-22) compared to CAGR of 2.8% in agriculture and 3.9% in services. The output per worker for Agriculture sector is consequently expected to continue to be low, and there is expected to be growth in disparity between the workers in the respective sectors. This phenomenon is typical of the economy-employment structures in most districts and states in India. It indicates the significant challenge in moving towards alignment of the employment with the economic output.

Incremental Human Resource Demand

As per the methodology, the total incremental demand for manpower in Chhattisgarh from 2012 to 2022 is expected to be around 30.44 lakhs. Following table provides the break-up of the incremental demand for manpower in Chhattisgarh as per the skill levels required.

Table 31: Estimated Incremental Human Resource Demand ('000) across Skill Level in Chhattisgarh

	2012-17	2017-22	Total
Skilled	216	271	487
Semi-Skilled	447	545	992
Minimally Skilled	747	818	1565
Total	1410	1634	3044

Source: Deloitte Analysis

A significant proportion (51%) of this incremental HR demand is expected in the minimally-skilled segment which typically comprises of people with some basic schooling background. Almost 33% of the total incremental HR demand is expected to be in the semi-skilled segment which typically comprises of people who are certificate/diploma holders and are undergoing vocational training and skill development programs. Both these segments hold an important implication from a skill development perspective in terms of provision of industry specific employability linked training.

The breakup of the incremental demand across different sectors is given below. While sectors like agriculture, manufacturing (primarily mineral/ metal based), building & construction and mining & quarrying are expected to contribute around two third of this demand (64.7%). Due to relatively higher anticipated growth rates, Banking, Financial Services & Insurance (BFSI) segments and Communication are the growth sectors which are also expected to contribute to the incremental demand.

Table 32: Incremental Human Resource Demand ('000) across Skill Level in Chhattisgarh- Key Sectors

#	Key Sectors	2012-17				2017-22			
		Skilled	Semi-skilled	Minimally Skilled	Total	Skilled	Semi-skilled	Minimally Skilled	Total
1	Agriculture	14	48	418	480	14	46	399	459
2	Manufacturing-Mineral/metal based	36	108	36	181	43	129	43	214
3	Building & construction	21	57	64	143	29	76	86	190
4	Mining and Quarrying	12	35	70	117	18	55	110	184
5	Trade (Retail + Wholesale)	15	51	36	103	16	53	37	106
6	BFSI	26	23	3	52	47	42	5	94
7	Communication	8	16	16	41	11	22	22	55
8	Food processing	5	14	27	45	5	16	32	53
9	Public Administration	22	9	5	36	23	10	6	38
10	Transportation & logistics/ warehousing/ packaging	2	7	14	24	3	8	16	26
11	Others	55	77	57	189	62	88	63	213
12	Total	217	447	747	1410	271	545	818	1633
Overall Incremental Demand					3,044				
Source: Deloitte Analysis									

Some of the key trends observed on the demand side include

- Over the period 2012-22, of the total estimated incremental employment, the bulk of employment is expected to arise from the agriculture (30.8%), Manufacturing – primarily mineral/metal based (12.9%) and Building and Construction (11.0%) sectors which are also confirmed by our analysis and primary interactions with various stakeholders.
- Given that 74% of current employment is in Agriculture, this sector is anticipated to be the largest incremental demand generating sector in the state. Presence of varied agro-climatic zones in the state enables cultivation of various crops in different parts of the state. 81% of the gross cropped area in the state is under Kharif cultivation while 19% is under Rabi cultivation. Paddy and Wheat are the key crops cultivated in Chhattisgarh. Chhattisgarh has over 41% of its geographical area under agricultural production. The state is known as 'rice bowl' of central India. **The state has also received the national award- 'Krishi Karman Award' for best performing state under rice category in the year 2012-13.** It's also one of the major producers of Maize, Cereals and Pulses in the country. The sector is anticipated to be the residual & largest incremental employer accounting for around 30.8% of the total incremental demand for manpower.

- ♦ *Manufacturing units of primarily mineral/metal based entities is anticipated to be the 2nd largest incremental demand generating sector (12.9%) in the state with demand largely in the semi-skilled level. Chhattisgarh is one of the richest states in terms of mineral resources. Approximately 28 varieties of minerals have been reported in the state which includes iron ore, coal, bauxite, limestone and semi-precious stones⁸⁴. The iron ore reserves are primarily found in the Dalli-Rajhara, Bailadila area and Rowghat areas of Chhattisgarh. Iron ore deposits of Bailadila are among the best deposits in the whole world. Limestone reserves are found in abundance in the Raipur-Bilaspur region including Baloda Bazar. Presence of large iron and steel, Aluminium and cement players in the state along with rich mineral profile and the surplus supply of power and water have fuelled the development of mineral/metal sector in Chhattisgarh. The wide occurrence of minerals in the state would further facilitate the mineral/metal based manufacturing activities in Chhattisgarh.*
- ♦ *In light of increase in urbanization and focus on infrastructure development in the state, Building and Construction sector is anticipated to be one of the major sectors in Chhattisgarh in terms of employment. The sector is expected to grow at 12.6% over the next decade. The total budgeted value for ongoing building and construction activities (building and roadwork) in Chhattisgarh for the year 2013-14 allocated at Rs. 6524 crores indicates the current focus on the sector in the state⁸⁵. Building and construction is projected to be the one of the major contributors in the incremental demand for human resource over the decade generating approximately 11.0% of the total incremental demand for employment. The surge in the building and construction activities would also fuel the growth of the allied industry of real estate in the state.*
- ♦ *Mining & Quarrying activities currently contributes around 26% in the economic output of the Industry sector and is estimated to grow at around 7.8% over the decade (2012-22). Chhattisgarh is endowed with rich deposits of minerals like coal, tin ore, iron ore, limestone, dolomite, quartzite, bauxite etc. Exploration of minerals account for around 27% of the total revenues of Chhattisgarh with the state Government reporting mineral revenue receipt of Rs. 3122 Cr. in the financial year 2012-13⁸⁶. With 13.3% share, Chhattisgarh was ranked 3rd in India in terms of value of minerals produced in 2012-13⁸⁷. The state has 20% of the total iron ore reserves, 16% of the total coal deposits and 100% of the tin ore deposits in India. The huge resource base of minerals would facilitate the sectoral growth in future as well posing more demand for human resources (10.0%).*
- ♦ *Within the Industry sector, agro based / food processing (3.0%) is the other sub-sector expected to contribute to incremental demand for employment in state. Significant activities in Agriculture provide a huge resource base for food processing industry in the state. In an effort to encourage the value addition of rich natural agro & food Products of the state, Agro and Food Processing Industries Policy, 2012 is declared in the state (effective from 1st November, 2012 up to 31st October, 2017). The primary objective of the policy is to make the sector investment*

⁸⁴ MSME-DI, Raipur

⁸⁵ Chhattisgarh Public Works Department

⁸⁶ Economic Survey 2012-13, Directorate of Economics & Statistics

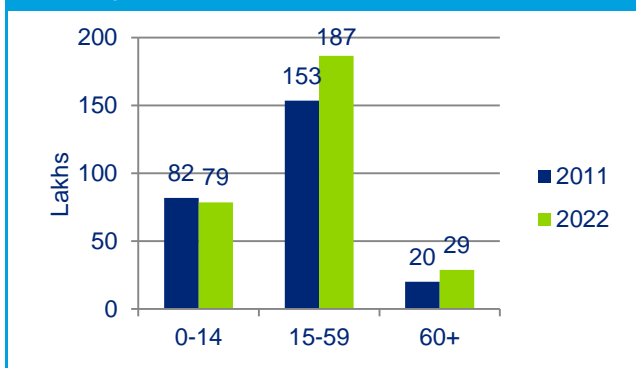
⁸⁷ Directorate of Geology and Mining, Chhattisgarh

competitive in comparison to the other states and lead the State in the food processing industries apart from generating new opportunities of employment and self-employment.

- ♦ *The booming manufacturing industry in the state, especially power and steel, increase in agricultural production, significant mining activities, presence of a number of micro and small ancillary units along with the growth in building and construction activities has enabled the trade of raw materials as well as finished products in the state resulting in increasing manpower demand in the sector. It is anticipated to be one of the largest employers of the state, providing employment to about 7% of the total incremental workers in Chhattisgarh over the period 2012-22.*
- ♦ *The Banking and Insurance sector is the fastest growing segment in Services sector registering a CAGR of 24.0% between 2004-05 and 2012-13. The contribution of Banking and Insurance sector to Services sector has increased from 6.8% in 2004-05 to 16.8% in 2012-13. It is another major contributor in the state in terms of employment and is likely to have a share of around 5% to the total incremental demand for manpower.*
- ♦ *In the Services sector, the other sub-sectors expected to show higher manpower demand include communication (3.2%), and public administration (2.5%). The Communication sector has registered an impressive growth of around 17% between 2004-05 and 2012-13. The high growth rate of the sector is attributed to the growth of the telecommunication sector in the state.*
- ♦ *Analysis of formal and informal employment indicates that the incremental demand for manpower in formal sector would come mainly from Manufacturing (primarily mineral/metal based), Mining & Quarrying, Building and Construction, BFSI and Public Administration. Majority of demand for incremental manpower in the informal sector is projected to come from Agriculture, Building & Construction, Trade (Retail + Wholesale), Manufacturing (mineral/metal based) and Food Processing.*

Incremental Human Resource Supply

Figure 42: Age wise population distribution (2011-22), Chhattisgarh (projected)



Source: Census 2011 and Deloitte Analysis

The population of Chhattisgarh is expected to increase from 256 lakhs in 2011 to 294 lakhs in 2022. Adjacent figure provides the current population and projected population across various age groups. As per the analysis, the number of people in the working age population (15-59) is likely to increase by 22% (34 lakhs) over the decade. This represents a significant increase in the labour force with a potential demographic dividend for the state. However, the expected increase in the working age population will have important implications on the government policies and initiatives and would require greater effort by

the state government to make them employable. It also presents a huge challenge for the state to make available sufficient higher education and skill development facilities as well as ensure productive employment opportunities to the available labour force.

As per the methodology, the estimated incremental manpower supply in Chhattisgarh over a period of 10 years (2012-22) will be around 34.27 lakh. Incremental manpower supply can be further classified into skilled, semi-skilled and minimally- skilled as per the education qualifications and estimated output of educational and vocational training institutes in the state.

Table 33: Estimated Incremental Human Resource Supply ('000) across Skill Level in Chhattisgarh

	2012-17	2017-22	Total (2012-22)
Skilled	303	318	621
Semi-Skilled	446	474	920
Minimally Skilled	956	930	1886
Total	1705	1722	3427

Source: Deloitte Analysis

Some of the key trends observed on the supply side include

- Proportion of incremental supply of minimally skilled manpower is 55%, compared to 27% of semi-skilled and 18% of skilled manpower (2012-22)
- The minimally- skilled segment is expected to emerge as the largest category of human resource supply over the period 2012-22 accounting for 18.9 Lakhs or 55% of the incremental labour force supply. While this employee segment may typically have some schooling background till secondary level, they need to be equipped with sector specific employment linked training in order to improve their chances of employment. This may be taken up as a priority segment by the state government while implementing various skill development initiatives in Chhattisgarh in order to facilitate their productive absorption in the work force.
- Over the period of time, the proportion of incremental supply of minimally skilled manpower is expected to decline from 56% in the 2012-17 period to 54% in the 2017-22 periods. This may be

attributed to improved enrolment and reduced drop-out at the high school level, coupled with ongoing skill development initiatives in the state.

- *The semi-skilled segment is likely to account for 27% of the total human resource supply in Chhattisgarh over the decade. The supply of semi-skilled workforce in the state is estimated to increase over the two time periods which are in-line with the current focus of government in improving the skill development space of the state. It must however be noted that out of this 9.2 lakhs, around 62% are those who have not continued with studies post completion of 12th std. or dropped out of higher education and have not received any particular skill-based training as such. While this employee segment would have typically undergone some skill based training (certificate/diploma) after secondary level, to further improve their employability, this training has to be more aligned to the industry requirements and demands. Also, the training should be augmented with bridge courses with a specific focus on communication, language, basic IT and soft skills to improve the employability quotient of the trainees.*
- *The proportion of skilled workers in the total incremental supply of human resource in the state is anticipated to be the least (18%) and likely to increase slightly over the decade.*
- *The trend of migration is expected to be inward from other neighboring states across all skill levels and would account to nearly 1.7% of the total supply in the state over the decade. According to primary interactions, inward migration is primarily in the minimally skilled segment especially for jobs in building & construction and manufacturing sectors*

Incremental Demand Supply Gap

During the period 2012-22, the incremental human resource demand in Chhattisgarh across all skill levels is estimated to be 30.44 lakh while the supply is projected to be 34.27 lakh indicating thus a surplus of around 3.83 lakh people (refer table below). There is estimated to be an excess demand across the semi-skilled segment while there is likely to be a surplus supply over the skilled and minimally skilled segments.

Table 34: Estimated Demand Supply gap ('000s) by skill levels in Chhattisgarh

#	District Skill Gap	2012-17				2017-22			
		Skilled	Semi-skilled	Min. Skilled	Total	Skilled	Semi-skilled	Min. Skilled	Total
1	Incremental HR Requirement (Demand)	216	447	747	1410	271	545	818	1634
2	Incremental HR Availability(Supply)	303	446	956	1705	318	474	930	1722
3	Demand-Supply Gap	(87)	1	(209)	(295)	(47)	71	(112)	(88)
	Overall Demand-Supply Gap				(383)				

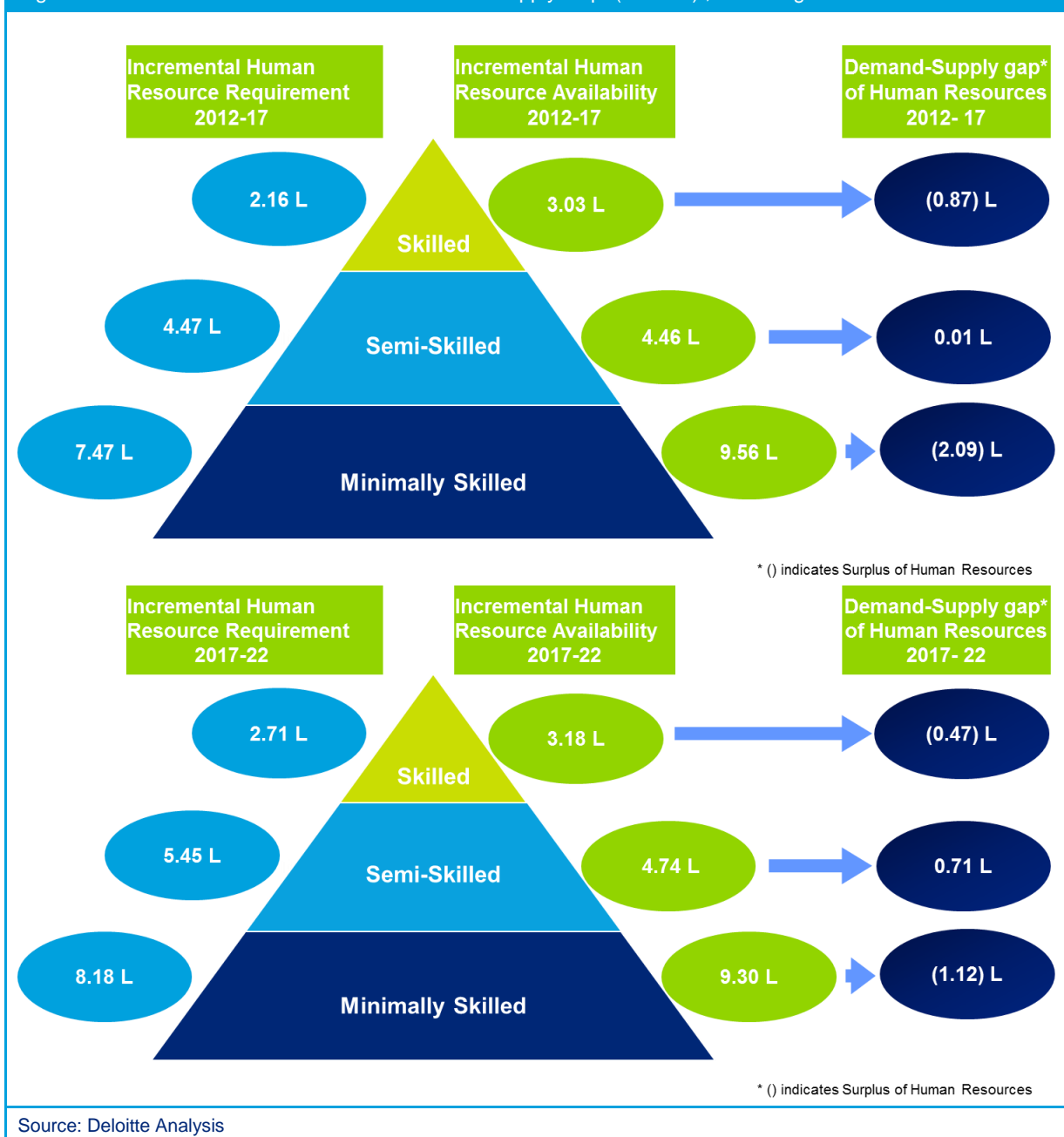
Source: Deloitte Analysis

While a shortage of manpower is likely to be expected across semi-skilled (0.72 lakhs) segment, an excess supply is estimated in the skilled (1.34 lakhs) and minimally skilled (3.21 lakhs) segments. This implies that the excess supply of minimally skilled labour force can be facilitated to shift to the productive employment capacity assumed at the semi-skilled level by improving the education and training infrastructure as well as skill development initiatives in the state. Also, the rate of creation of employment generation in the state has to be boosted with suitable government and private initiatives in order to absorb the surplus supply of labour force anticipated to enter the job market over the decade.

In order to ensure maximum and optimum utilization of the surplus supply of human resources, the government may also aim at developing entrepreneurial qualities amongst the youngsters and prepare new entrepreneurs to setup their own small enterprises.

During the period 2012-22, the incremental manpower demand supply gap of the state (across all sectors mentioned above) is expected to be a surplus of about 3.83 lakh people with an excess demand anticipated across the semi skill segment as shown in the following figure.

Figure 43: Incremental Human Resource Demand-Supply Gap (in lakhs) , Chhattisgarh



Some of the key trends observed on the demand-supply gap of the human resource include

- ♦ *The composition of the human resource demand supply gap over the two different time periods i.e. 2012-17 and 2017-22 is anticipated to remain the same across all skill levels.*
- ♦ *The excess supply of skilled resources in the district is expected to continue over the decade. While the surplus supply of skilled workforce is expected primarily from districts like Durg, Raipur, Bilaspur, Rajnandgaon, Janjgir-Champa, Surguja etc., there is likely to be an excess demand of skilled workers from districts like Balod, Baloda Bazar, Korba, Koriya etc. Even in the case of existing supply of workers in the skilled segment, it is pertinent to note that it does not imply industry demand for skills is being sufficiently met. Industry interactions during the study have revealed employability linked skills as a key area of concern. While overall supply of skilled labour force is in excess of its demand, there seems to be a mismatch between output from higher educational institutions in the state (**around 70% in general degree courses having undergone no job/skill specific training**) to specific skills required by sectors having high demand for skilled labour (like Manufacturing, BFSI, Trade and Communication etc.). Primary interactions have also raised employability & deficit in specific jobs/skills as major concerns despite high overall supply in skilled category. The changing landscape of the sector which includes usage of new technology implies a need for reskilling and up skilling of the existing workers. Therefore, in practical terms, there is huge need for reskilling of a number of these graduates to improve their employability and increase employment opportunities for them.*
- ♦ *The trend of excess demand in the semi-skilled category is likely to continue in the state across both the time periods with shortage of an overall 0.72 lakh people. While the surplus supply of semi- skilled workforce is expected primarily from districts like Balod, Baloda Bazar, Dhamtari, Kanker, Mahasamund etc., there is likely to be an excess demand of semi-skilled workers from districts like Raipur, Durg, Bilaspur, Korba, Raigarh etc. It must however be noted that out of the total supply of 9.2 lakhs, around 62% are those who have not continued with studies post completion of 12th std. or dropped out of higher education and have not received any particular skill-based training as such. This presents a case for undertaking suitable skill development initiatives in the state and enables a suitable training in this segment to assume the roles at the semi-skilled levels. It is important to note that even within the present set of semi-skilled employees, absence of adequate employability linked skills have emerged as a key area of concern during primary interaction with industries.*
- ♦ *In line with the rural-urban population distribution in the district (around 77% of the population residing in rural areas) and dominance of agriculture in employment in the district, the major contributor to the incremental supply is the minimally skilled segment. The surplus supply of minimally skilled workforce is expected primarily from districts like Baloda Bazar, Balrampur, Bilaspur, Kabirdham, Kondagaon, Mahasamund, Mungeli, Rajnandgaon, Surajpur etc. This may result in some intra state migration of the additional supply of minimally skilled workers in search of employment to districts like Balod, Dhamtari, Durg, Korba, Koriya etc. where there is likely to be an excess demand of minimally skilled labor. Moreover, such a trend also presents an opportunity for up skilling and augmenting the skills of the minimally skilled labour according to the industry demand and move to the next higher employment level.*
- ♦ *As indicated in the figures above, the excess supply of minimally skilled human resources seen in the 2012-17 period is likely to decrease in the period 2017-22. This is in line with the improvement in the education and skill development levels in the state.*

Qualitative Skill Gaps

The following table highlights the qualitative skill gaps in high incremental demand sectors highlighted during our primary interactions with industries at Chhattisgarh.

Table 35: Sector wise key Qualitative Skill Gaps

Sector	Level	Skill Gap - Technical	Skill Gap – Soft Skills
Agriculture	Tractor operator and mechanics/ Electricians/ Mechanics for repair & maintenance of agricultural tools & implements	<ul style="list-style-type: none"> Sufficient training to address tool & equipment failures like motor pump failure, gear damage, tyre puncture etc. 	<ul style="list-style-type: none"> Communication skills Negotiation Skill
Manufacturing (mineral/metal based)	Manager/ Engineer	<ul style="list-style-type: none"> Operational economics & Finance Operations Laws and Contracts Project Management Skills Knowledge of appropriate safety practices Ability to plan and implement scheduled checks on machinery and parts Finding and fixing faults and recalibrating instruments Record keeping 	<ul style="list-style-type: none"> People Management Skills Leadership Skills Communication skills (Writing Skills) Responding immediately to equipment breakdowns Organizing routine servicing schedules
	Supervisors	<ul style="list-style-type: none"> Basics of Production Technology & Materials Mechanical & Electrical Services Engineering Value Management Knowledge about machines Understanding of quality concepts Understanding of product specifications Knowledge and implementation of safety practices Improve efficiency by avoiding wastage of resources Preventive Maintenance 	<ul style="list-style-type: none"> Interpersonal and communication skills Operations Safety & Health Repercussions for failing Communication skills People management skills incl. Team Building and Leadership skills Coordination between various departments Team work
	Workmen/ operators	<ul style="list-style-type: none"> Understanding of discipline, industrial rules, work related procedures etc. Ability to carry out basic troubleshoot in case of machine breakdown Understanding of wastage of resources, to improve efficiency in working Multi skilling Practicing safety measures in the workplace 	<ul style="list-style-type: none"> Communication skill Attitude of ensuring safety Service orientation
Building & Construction	Project Managers/ Engineers	<ul style="list-style-type: none"> Knowledge of design and tools such as AutoCAD etc. Recognition of quality of materials like cement, steel, fine aggregate, coarse aggregate, timber, paints etc. Knowledge of green/eco-building design Project Management Skills 	<ul style="list-style-type: none"> People Management Skills Teamwork Client Management skills (e.g. government officials for approvals, flat owners etc.) Optimizing use of

Sector	Level	Skill Gap - Technical	Skill Gap – Soft Skills
		<ul style="list-style-type: none"> Understanding survey techniques Selection of vendors Cost and timeline estimation Knowledge of appropriate safety practices 	resources
	Supervisors: plumbing, electrical, carpentry, masonry, drilling	<ul style="list-style-type: none"> Skills in civil- operations of ready mix m/c, earth movers, etc. Knowledge about concrete works, formwork, scaffolding, plastering, pointing, fixing doors and windows and material stacking Instrument reading and measurement Understanding drawings and project design Site safety concepts and procedures Lack of finishing skills 	<ul style="list-style-type: none"> Use of safety gadgets and first aid Communication skills Resolving conflicts Mobilizing workers
	Workmen: plumbing, electrical works, carpentry, masonry, drilling	<ul style="list-style-type: none"> Basic operating skills related to relevant category Information about tools and equipment Improved/ better quality in finishing Site safety concepts and procedures Ability to understand & follow instructions/ manuals 	<ul style="list-style-type: none"> Safety and security measures Waste disposal Team work Moral commitment to work Wastage control Basic communication skills
Mining & Quarrying	Managers/ Engineer	<ul style="list-style-type: none"> Project Management Skills Knowledge of appropriate safety practices Knowledge about job contract management Material forecasting and management Vendor management Knowledge of appropriate safety aspects 	<ul style="list-style-type: none"> People Management Skills Safety Team work Stress management First aid & Hygiene
	Supervisors	<ul style="list-style-type: none"> Machine operation knowledge Mines and plant management Understanding of electrical and mechanical maintenance concepts Understanding of product specifications Knowledge and implementation of safety practices Improve efficiency by avoiding wastage of resources 	<ul style="list-style-type: none"> Interpersonal and communication skills Safety Team work First aid & Hygiene
	Workmen/ operators	<ul style="list-style-type: none"> Knowledge of basic machine operation Understanding of discipline, industrial rules, work related procedures etc. Ability to carry out basic troubleshoot in case of machine breakdown Practicing safety measures in the workplace Multi skilling 	<ul style="list-style-type: none"> Safety & Health Team work First aid & Hygiene
	Trade (Retail and Wholesale) Store/ Department Manager	<ul style="list-style-type: none"> Understanding of cross functional activities in the store esp. logistics, marketing and merchandising Day to day management of store Understanding various aspects of customer behaviour 	<ul style="list-style-type: none"> People management skills Handling customer complaints Communication skills (English, Hindi and local)

Sector	Level	Skill Gap - Technical	Skill Gap – Soft Skills
		<ul style="list-style-type: none"> Product knowledge Vender negotiation Inventory management IT skills 	<ul style="list-style-type: none"> language) Stress management
	Billing Associate/ Accountants/ Computer operators	<ul style="list-style-type: none"> Knowledge of transaction processing software and cash management Knowledge of tally/accounting practice 	<ul style="list-style-type: none"> Inter personal skills Communication skills Customer management
	Sales/Customer Service personnel	<ul style="list-style-type: none"> Product specific knowledge Knowledge of product specifications and store offerings Knowledge about merchandise in inventory Ability to explain use, operation, and care of merchandise to customers 	<ul style="list-style-type: none"> Inter personal skills Communication skills Customer management Basic reading and writing skills Negotiation skills
BFSI	Middle level managers	<ul style="list-style-type: none"> Compliance Risk Management Understanding of regulations Business Development Client and team Relationship Management Marketing & Promotional Activities Business Proposal Preparation and Presentation 	<ul style="list-style-type: none"> Leadership Skills Stress Management Ability to work in a regulated environment
	Business Facilitator / Correspondent/ Direct Selling Agents/Financial Advisors	<ul style="list-style-type: none"> Product knowledge Presentation skills Financial Planning and Counseling skills Multi-function skills (Knowledge about operations) Customer need assessment and Advisory Skills 	<ul style="list-style-type: none"> Lack of Interpersonal and communication skills Selling Skills Customer service and Inter personal skills
	Officer and Trainee	<ul style="list-style-type: none"> In-depth Product Knowledge Accounting knowledge Writing Skills 	<ul style="list-style-type: none"> Verbal and communication skills Inter-personal skills
	Customer Service Executives	<ul style="list-style-type: none"> Basic knowledge of products Computer skills Documentation 	<ul style="list-style-type: none"> Communication Skills Relationship Management
Communication	Customer Care Executive (call centre/repair centre)	<ul style="list-style-type: none"> Basic knowledge of products Basic computer skills Documentation 	<ul style="list-style-type: none"> Verbal communication especially related to selling
	Workmen/operators	<ul style="list-style-type: none"> Understanding of Network maintenance and Tower Repair & Maintenance Knowledge of technology and equipment being used Knowledge of amplifier equipment repair Domain/ Subject Knowledge and correct application Product specific knowledge 	<ul style="list-style-type: none"> Customer service and Interpersonal skills Communication Skills
	Sales & marketing (in both handsets and service companies)	<ul style="list-style-type: none"> Knowledge of technology and equipment being used Ability to understand & follow instructions/ manuals Understanding customer requirement; Product knowledge 	<ul style="list-style-type: none"> Negotiation, communication and selling skills Customer service and Inter personal skills
Food	Procurement	<ul style="list-style-type: none"> Ability to forecast demand and 	<ul style="list-style-type: none"> Inter personal skills

Sector	Level	Skill Gap - Technical	Skill Gap – Soft Skills
Processing	Managers	<ul style="list-style-type: none"> undertake procurement accordingly Understanding of appropriate ways for proper transport of produce till the processing plant Vendor management Knowledge of market Ability to locate and enter into relationships with farmers 	<ul style="list-style-type: none"> Negotiation Skills Relationship Management
	Plant Associates and operators	<ul style="list-style-type: none"> Technical knowledge of milling machinery Knowledge about advanced technology Basic engineering knowledge esp. on practical aspects, process knowledge e.g. distillation Ability to understand & follow instructions/ manuals Limited ability to carry out basic repairs and troubleshooting 	<ul style="list-style-type: none"> Commitment to work Communication and interpersonal skills Team Work Safety
	Material Handlers	<ul style="list-style-type: none"> Limited awareness on quality, health and hygiene awareness Limited basic computer skills including barcode reading Wastage control 	<ul style="list-style-type: none"> Working under stress Safety
	Sales and marketing	<ul style="list-style-type: none"> Product Knowledge Limited ability and willingness to understand the manufacturing process 	<ul style="list-style-type: none"> Limited Negotiation, communication and selling skills
Source: Primary Interactions			

District Level priority sectors

District level incremental manpower requirements estimation (detailed in the chapters on each district) indicates that the six districts of Bilaspur, Durg, Janjgir-Champa, Korba, Raigarh and Raipur account for more than half of the total manpower requirement (52.9%) in the state over the decade 2012-22. Table below presents the district level priority sectors based on the estimated demand, primary interactions with various stakeholders and the thrust areas of the government.

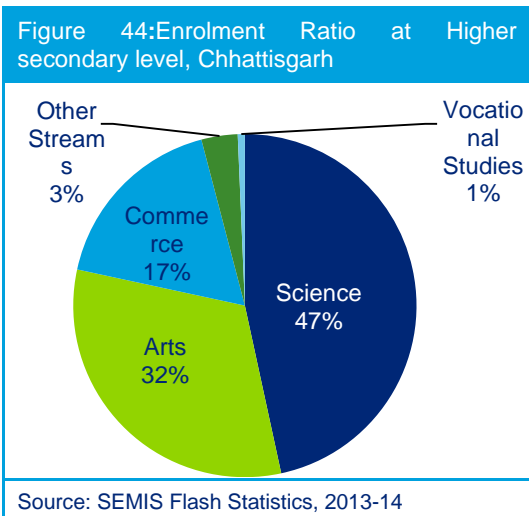
District	Manpower Requirement (2012-22) in '000	% Share	Agriculture	Mining & Quarrying	Textile & Garments	Chemicals & Pharmaceuticals	Building and Construction	Food Processing	Handloom & Handicrafts	IT/ITES Services	Tourism, Hospitality & Travel	Transportation & Logistics/ Warehousing/ Packaging	Trade (Wholesale + Retail)	Real Estate Services	Communication	Healthcare Services	BFSI	Education/ Skill Development Services	Manufacturing (Mineral/ metal based)	Electricity, Gas & Water Supply	Public Administration	Furniture & Furnishing	Other Services	Media & Entertainment	Select Informal Sector
Balod	97	3%																							
Baloda Bazar	141	5%																							
Balrampur	48	2%																							
Bastar	82	3%																							
Bemetara	70	2%																							
Bijapur	14	1%																							
Bilaspur	264	9%																							
Dantewada	45	1%																							
Dhamtari	83	3%																							
Durg	289	10%																							
Gariaband	57	2%																							
Janjgir-Champa	190	6%																							
Jashpur	71	2%																							
Kanker	73	2%																							
Kawardha	53	2%																							
Kondagaon	48	2%																							
Korba	234	8%																							
Koriya	100	3%																							
Mahasamund	71	2%																							
Mungeli	55	2%																							
Narayanpur	14	1%																							
Raigarh	208	7%																							

District	Manpower Requirement (2012-22) in '000	% Share	Agriculture	Mining & Quarrying	Textile & Garments	Chemicals & Pharmaceuticals	Building and Construction	Food Processing	Handloom & Handicrafts	IT/ITES Services	Tourism, Hospitality & Travel	Transportation & Logistics/ Warehousing/ Packaging	Trade (Wholesale + Retail)	Real Estate Services	Communication	Healthcare Services	BFSI	Education/ Skill Development Services	Manufacturing (Mineral/ metal based)	Electricity, Gas & Water Supply	Public Administration	Furniture & Furnishing	Other Services	Media & Entertainment	Select Informal Sector
Raipur	426	14%																							
Rajnandgaon	152	5%																							
Sukma	13	0%																							
Surajpur	67	2%																							
Surguja	79	3%																							
Key		Sectors with moderate demand												Sectors with significant demand											

3.8 Challenges in Skill Development in the State

As highlighted above, Government of Chhattisgarh has taken a number of initiatives towards skill development of the youth and improving their employability in the state. However the key challenges in providing and promoting skill development initiatives have been highlighted below based on our analysis and primary interactions:

- Insufficient ITI and ITC training capacity:** The ITI's and private ITI's across Chhattisgarh together have the capacity to train approximately 0.27 lakhs people annually, whereas close to 1 lakh semi-skilled workforce would be required by the state economy per year by 2022 creating thus a deficit in the supply of trained personnel. This will need to be bridged through efforts of VTPs in the state indicating significant potential and demand for them.
- Uneven spread of ITI and ITC training capacity –** Approximately 50% of the total ITI's and private ITI's training capacity is concentrated in 5 industrialized districts of the state- Durg (15.9%), Bilaspur (11.4%), Raipur (9.0%), Raigarh (5.8%), and Janjgir-Champa (5.8%). While Janjgir-Champa district is likely to have a surplus of semi-skilled resources, remaining districts are likely to experience deficit of semi-skilled workers. Remaining 50% of the total training capacity is spread across 22 districts. Moreover, primary interactions with industry also highlighted poor quality of students from ITI's/ITC's with limited practical exposure.
- Low annual intake capacity of vocational training per lakh population:** Most northern & southern districts of Chhattisgarh have a low annual intake capacity per lakh population (below 150) except Bilaspur and Bastar respectively. The districts of Kawardha (11), Sukma (26), Mungeli (33) and Bijapur (38) are the backward districts in this aspect, with substantially low annual intake capacity of vocational training per lakh population, relative to all other districts in the state.
- Low literacy profile of districts:** The literacy level of around 70% of the districts in Chhattisgarh is below the national average (74%). This presents a significant challenge ahead the state government for improving the skill development efforts of the state, especially in up-skilling of existing workforce.
- Low enrolment in vocational studies at the higher secondary level:** Enrolment in vocational studies in the state is significantly low with only 1% of the total students enrolled at the higher secondary level⁸⁸. Slightly less than half (49%) of the total higher secondary students are enrolled in arts and commerce streams⁸⁹ nonetheless their employability quotient being very low compared to other streams. Less than 1/3rd of the total arts and commerce graduates are perceived to be employable by the industry⁹⁰.



⁸⁸ SEMIS Flash Statistics, 2012-13 (Provisional)

⁸⁹ SEMIS Flash Statistics, 2012-13 (Provisional)

⁹⁰ India Skills Report- 2014, CII

- ♦ **Need to periodically review and revise curriculum based on industry requirements:** Approximately 69% of the students surveyed feel that the training/education currently provided by the educational institutes in the state is not in alignment with the potential job requirements of the employers. The primary interactions with industry players and associations have also revealed employability linked skills as a key area of concern amongst the youth. With rapid improvements in technology, the current courses are losing their relevance and becoming outdated. Thus, the survey brings out the need to make appropriate changes/up-dation in the course curriculum in consultation with industry to make the same more application based and industry relevant.
- ♦ **Need to increase industry participation and improve practical component of training:** According to both students and industry, there is further scope to update curriculum offered to students, especially, in engineering trades across industries such as construction, electronics etc. since industry demands are constantly evolving with greater need for technology-based skill modules.
- ♦ **Limited placement opportunities for students:** Most of the students surveyed highlighted their concerns over limited placement options/jobs available post education or training. Around 57% of them felt the job opportunities available to them post training are not satisfactory. This may be attributed to the inadequate institutional infrastructure and linkages for continuous interaction and tie-ups with industry/ employers.
- ♦ **Limited Awareness on Skill Development Initiatives:** Around 62% of the students surveyed were dissatisfied with their access to information to make an informed career choice. The concern was raised more by the rural youth who reported the absence of appropriate facility/linkages and thought leaders in their locality to get suggestions and guidance on career. They highlighted the need and importance of having career counseling to the potential students either at the school level or at the respective vocational institutes.
- ♦ **Limited opportunities and awareness for up skilling/continuous learning:** Industry feedback indicated the limited options available for existing employees to continuously learn and upgrade their skills in their respective industries. Another related aspect is the limited initiative among employees to undertake such initiatives on their own, on a larger scale.

3.9 Recommendations for Skill Development in the State

3.9.1 Recommendations – Government of Chhattisgarh

1. **Focus on increasing the training capacity of the state for semi-skilled workers:** Overall expected supply of semi-skilled manpower is 9.20 lakhs against a requirement of 9.92 lakhs by the decade (2012-22), which implies that 0.72 lakhs additional persons will have to be trained to take up semi-skilled job roles. For which suitable capacity enhancements in the vocational training institutes will be required.

Moreover, as per our calculations, the expected supply of semi-skilled manpower consists of two major categories: (i) Those who will undergo a training in vocational courses either in Polytechnics, ITI/ITCs and VTPs as well as secondary schools offering vocational education courses (under RMSA), and (ii) Class 12 pass-outs and dropouts from the higher education system who may not have undergone any vocational training as a part of their education.

The expected number of persons falling in the latter category is 8.3 lakhs over the decade 2012-22. It is important to improve the employability of this employee segment by providing suitable vocational training in alignment with the industry requirements and demands with an impetus on training through VTPs, ITIs and NSDC training partners. The training may also need to be augmented with bridge courses with a specific focus on communication, language, basic IT and soft skills to further improve the employability of the trainees.

Align the current training capacity of Government & Private ITI's: There is a need to align the current training capacity of the Industrial Training Institutes with respect to high demand sectors anticipated in the state. The capacity and course offerings in the Polytechnics, govt. and Pvt. ITIs will have to reflect the employment market as well as to the location where this demand is expected to be concentrated for the respective sectors.

As summarized in the table below, the annual training capacity of the Industrial Training Institutes needs to be increased or supplemented with a network of Vocational Training Providers (VTPs) and NSDC training partners in sectors like Agriculture, Manufacturing (mineral/metal based), Building and Construction, Trade (Wholesale + Retail), Food Processing and Transportation and Logistics. Additionally, courses in Mining & Quarrying, BFSI and Communication needs to be focused upon by the state government in the current training capacity.

High Demand (Key) Sectors	Annual Demand for Semi-Skilled Workers ('00)	Annual Capacity of ITI's & ITC's ('00)	Capacity Gap ('00)
Agriculture	93.9	0.3	93.5
Manufacturing (mineral/metal based)	237.0	78.7	158.3
Building & Construction	133.4	88.2	45.2
Mining & Quarrying	90.1	-	90.1
Trade (Retail+ Wholesale)	104.6	7.2	97.4
Banking, Financial Services and Insurance (BFSI)	65.6	-	65.6
Communication	38.5	-	38.5
Food Processing	29.4	1.0	28.4

Transportation & logistics/ warehousing/ packaging	15.0	8.3	6.7
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Reduce disparity in vocational training infrastructure in the State: Further expansion of the existing vocational training infrastructure may be done by the state government especially in districts such as Balod, Mungeli, Sukma, Kondagaon, Koriya and Baloda Bazar where there is an issue of low accessibility to higher as well as vocational education. The state may also encourage partnership in these districts with the private sector training providers through PPP mode.

2. **Facilitate Improved Industry Participation in the state:** Our primary interactions highlighted the lack of meaningful industry participation in the state in aspects such as curriculum development, course validation, involvement in on-the-job trainings and internships, placements and faculty exchange programmes. The Government may consider introducing the following initiatives to improve the mechanism for industry-training institute interaction in the state.

- Formation of **State-level Industry - Vocational Education Council (SIVEC)** in collaboration with existing industry bodies which would act as an interface between Industry and the Vocational Training Institutes. The SIVEC can be tasked with some of the following activities
 - Facilitate industry participation in design and delivery of courses and skill development programmes through sub-committees for key sectors
 - Enroll industry to accept internships, on-the-job training and placement opportunities for the trainees
 - Employer satisfaction survey with companies visiting campus as well as off-campus to capture their requirements and satisfaction with quality and quantity of trainees
 - Facilitate a two-way sabbatical/exchange programme between industry and ITIs to address the issue to industry orientation of faculty

3. **Capacity Development of the Faculty –** The primary interactions with youth across the state revealed concerns of the students and trainees over faculty. Around 64% of the youth surveyed (especially the students from Government colleges) feel the quality of teaching by faculty in their institute is not satisfactory and needs significant improvement. The state can facilitate the following strategies for capacity development of its trainers/faculty:

- Explore feasibility of conducting an eligibility test on the lines of NET/SET for recruitment of entry-level qualified vocational training faculty
- Intensive training programme for pre and in-service training should be imparted to all vocational education faculty. This can be implemented by setting up Faculty Development Centres (FDC) through a PPP mode by identifying large sponsor companies as sector specific Mentor Institutions to impact Capacity Development and Training programs (short term and long term).
- Encourage and sponsor training institute-industry exchange programs through SIVEC in which faculty members can spend a short period with relevant industry and similarly practitioners can spend a short period in the training institutes.
- Allocate minimum number of days of training per faculty per annum and minimum budget of training of faculty per annum

4. **Improve employment opportunities for candidates passing out of the vocational training system:** Insufficient employment opportunities in the district/state are one of the key concerns highlighted by youth during our primary interactions. Around 57% of the students surveyed expressed their dissatisfaction with the placement opportunity provided by the institute or jobs available post training in

their respective district. The state government may consider initiating the following strategies in Chhattisgarh in an effort to address placement/employment related concerns of the students.

- The current training and placement cells in ITIs and VTPs need to be strengthened by establishing a trainee placement and tracking system at CSSDA for effective evaluation and future policy planning. The cells in the institutes must provide job-readiness training (resume preparation, interview skills etc.) and placement coordination with industry and employment exchanges.
- The state may also consider aligning the existing 'Employment Exchanges' for collecting information on all vocational trainees and providing information on employment and skill development within their respective districts. In addition, CSSDA can co-ordinate and organize trainee registration exercise at each ITI/ SDI followed by at least one annual job fair at a district level
- As the vocational training institutes, the state may introduce additional optional 'skill-bridge' courses to address those aspects of vocational education not addressed in the current training like soft skills, communication, language, basic IT skills, safety & quality practices, etc.

5. **Promote Entrepreneurship Development:** As per our primary interactions with youth during surveys and Focused Group Discussions (FGDs), a very small proportion of youth expressed interest in self-employment with the majority being inclined towards regular/ salaried employment. However,

- Self-employment and small scale business should be promoted in the state to generate employment opportunities, especially in labour intensive manufacturing sectors like food processing, textiles, handloom and handicrafts and Services sectors like trade, hotels and restaurants, construction and information technology. Adequate incentives, not just in terms of financial assistance but in terms of skill and entrepreneurship development and forward and backward linkages to finance, marketing and human resource management, can be provided to those who are or seek to be self-employed.
- To encourage self-employment, the MSME-DI, Raipur should arrange greater number of multiple product-cum- process oriented programs like Entrepreneurship Skill Development programmes (ESDPs), Entrepreneurship Development Programmes (EDPs), Industrial Motivation Camps (IMCs), BSDPs etc. in the priority sectors across districts for different groups of unemployed youth, people from weaker sections of the society, minorities, SCs & STs etc. with an objective of developing entrepreneurial qualities and preparing new entrepreneurs.
- The state may develop Entrepreneurship Skill Development Centre in collaboration with institutions such as Entrepreneurship Development Institute (Ahmedabad) which could be designated as a premier body for promoting entrepreneurship development among targeted segments of the workforce.
- For the development of MSMEs, the following districts can be targeted for cluster development by providing entrepreneurship and managerial training – Durg, Raipur, Surguja, Rajnandgaon and Raigarh for metal based steel fabrication units, Durg, Raipur, Bilaspur, Surguja and Janjgir-Champa for agro based units and Bilaspur, Surguja, Raipur, Durg and Janjgir-Champa for mineral based units. These courses can be delivered in collaboration with MSME Development Institute at Raipur.

6. **Improve Awareness on the Skill Development Programs:** Unavailability of information is one of the key concerns highlighted by youth in the state. Around 62% of the students surveyed were dissatisfied with their access to information to make an informed career choice. Moreover, the majority of

the youth surveyed were also unaware of the various skill development initiatives being implemented in the state. The state may undertake awareness initiatives on a priority basis to address the issues of access to information for prospective trainees.

- The Government should promote and endorse vocational education as a practical alternative to formal education with emphasis on providing job ready courses by designing and implementing a promotional exercise at Secondary schools.
- The regional DET offices and employment exchanges should collaborate together and arrange awareness campaigns in the district with focus on providing information on the VTP/Skill development institutes in the district along with the courses offered, registration process, course requirements, future job opportunities etc. It should be followed by at least one annual job fair in the district organized in collaboration with industry.
- The state may consider enabling existing employment exchanges to function as career counseling centres to help students make informed career choices.
- Appropriate mechanisms need to be developed to capture and share information with respect to enrolment, institutional capacity, student engagement (during the period of study) and student destination data from all registered vocational institutions. This will enable the stakeholders to assess whether the system is responding to employers'/industry's needs and devise policies accordingly.

7. Improve Management and Governance: The Government may focus on devising a comprehensive information system with an objective of providing inputs for informed decision making and enhanced information access for students and faculty. They may introduce a 'dynamic MIS' with student and faculty information related all the parameters such as capacity, admissions, infrastructure, scholarships, fees, apprenticeships, internships, placements, etc. The Government should also initiate mechanism to track the career progression of the students post training through 'Annual student destination studies/Tracer studies'

8. Focus on Skilling and multi-skilling Rural/ Traditional Industries and Sectors: The employment in rural/ traditional sectors (typically cottage industries) in Chhattisgarh constitutes an important segment of the state demography.

- The major production areas of handloom and handicrafts, apparel etc. may be organized into production clusters and meta clusters and provided with handholding services to the individual clusters in terms of financial assistance & marketing services.
- It is vital to capture and record the traditional skills and further design and deliver suitable training programs targeted at conserving and reviving the traditional industries in the handloom and handicrafts sector. This can be done through setting up Traditional Craft Conservation and Promotion Centres using suitable PPP model with the involvement of grass-root organisations and NGOs. It must be kept in mind that such centres need to be Mobile units to ensure better reach and usage. Additionally, the training may also focus on basic financial literacy, marketing avenues, communication and negotiation skills along with information on government schemes and social benefits that will benefit the workers.
- Additionally, the traditional workers, e.g. those dependent on minor forest produce as the primary source of livelihood, may be skilled in alternative sources of livelihood as a diversification strategy to support them.

9. Revamp and match the physical and teaching infrastructure of institutes (equipment, laboratories and teaching aids) to the current requirement: Unavailability of latest technology &

adequate equipment for training in the institute was highlighted as a concern by approximately 55% of the students surveyed. The lack of adequate infrastructure in the institute is one of the major constraints for appropriate skill development. The state may consider the following strategies

- The state should, after assessing the current infrastructure at government and private ITIs, draw up plan for strengthening the existing infrastructure.
- For all capital expenditure, sufficient repair and maintenance budget should be allocated for ensuring upkeep of the assets.
- State may consider entering into Annual Maintenance Contracts with suitable agencies for equipment and IT infrastructure maintenance.

3.9.2 Recommendations – NSDC

1. **Promote training in priority sectors:** NSDC should promote partnerships with private skill development players in the state with focus on the following sectors identified based on future manpower requirements –

- Manufacturing (mineral/metal based)
- Building and Construction
- Mining and Quarrying
- Agriculture
- Trade (Wholesale + Retail)
- Banking, Financial Services and Insurance (BFSI)
- Communication
- Manufacturing (Food Processing)
- Transportation & logistics/ warehousing/ packaging

2. **Up-skilling:** Additionally, the existing workers in different sectors of the economy would also be an important target segment in terms of skill up gradation/re-skilling since the industry interactions have revealed employability linked skills as a key area of concern amongst the existing workforce in the state. As per our analysis and primary interactions, approximately 17% existing workers in Chhattisgarh require re-skilling/up-skilling in the current industry structure. Apart from the priority sectors highlighted above, the existing workers would also require re-skilling/up-skilling in sectors such as tourism, hospitality and travel, education, healthcare and activities allied to agriculture.

3. **Focus on soft skills:** The NSDC should mandate its training partners in Chhattisgarh to provide bridge courses like spoken English, basic communication skills, personality development & basic IT skills apart from the regular courses offered by them as these are considered to be very important by the youth. Training for job readiness was highlighted as the most important parameter for youth during youth survey in the state.

4. **Collaboration with the Sector Skill Councils:** The Sector Skill Councils (SSCs) in sectors of importance to Chhattisgarh such as Manufacturing, Building & Construction, Mining & Quarrying, Food Processing etc. may need to provide the National Occupation Standards and help in realizing skill assessment and certifications in a time-bound manner so that the training activity in the state can be in conformance with the overall national framework.

3.9.3 Recommendations – Industry

1. **Establish Training Centres through Public Private Partnership:** To cater to their increasing demand of sufficiently trained workforce, the industry may establish training facilities in collaboration with

the CSSDA through Public Private Partnership similar to the Women ITI Koni in Bilaspur. These training facilities may be established close to the area of operation of the industries. The state can provide support in the form of land and institutional infrastructure while the industry may provide financial and operational assistance for the proposed institute. For this purpose, the facilities of the existing government institute may be used as training centres. An alternative strategy may be to run short term training courses or apprenticeship programs for the students in partnership with the state government within the industry premises. The industry may also complement the existing vocational education system in the state by establishing sectoral 'Centres of Excellences' and vocational teacher training institutes in Chhattisgarh in collaboration with industry bodies like CII-Chhattisgarh and PHD Chamber of Commerce.

2. **Collaborate with Sector Skill Council (SSCs):** The overall engagement of the industries in Chhattisgarh with the Sector Skill Councils can be enhanced. The sector wise major industry players in the state should support the activities/initiatives of their respective SSCs in Chhattisgarh.

3. **Re-skilling and up-skilling of employees:** The rapidly changing landscape of the sectors especially Manufacturing, Building and Construction, BFSI etc. which includes usage of new methods and technology underscored the need for reskilling and up skilling of the existing workers. As per our analysis and primary interactions, approximately 17% existing workers in Chhattisgarh require re-skilling/up-skilling in the current industry structure. The industry players will need to ascertain their skill gaps and training needs of their existing employees, and train them to improve upon their current productivity.

4. **Undertake Vocational Training as part of CSR:** The major private players as well as public sector enterprises in the state can also encourage vocational training as part of their CSR activities in the high growth sectors identified in the priority districts. They can partner with the Skill Development Institutes in the state for infrastructural support, guest/visiting faculty & On the Job Training (OJT) etc. They can also subsidize/fund the training fee of the candidates for underprivileged students and can provide training support to the faculty of the Skill Development Institutes.

3.9.4 Recommendations – Skill Development Institutes

1. **Focus on Priority Sectors:** The Skill development institutes in the state can focus on the following sectors and districts in order to address some of the skill gaps identified in the priority sectors.

Sector	Priority	Key Districts
Agriculture	High	Balod, Baloda Bazar, Bemetara, Bilaspur, Dhamtari, Gariaband, Janjgir-Champa, Jashpur, Korba, Raigarh, Raipur, Rajnandgaon
Manufacturing (mineral/metal based)	High	Bilaspur, Durg, Janjgir-Champa, Korba, Raigarh, Raipur, Rajnandgaon
Building and Construction	High	Bastar, Bilaspur, Durg, Janjgir-Champa, Kanker, Raigarh, Raipur, Rajnandgaon, Surguja
Mining and Quarrying	High	Balod, Dantewada, Korba, Koriya, Raigarh, Surajpur
Trade (Wholesale + Retail)	High	Baloda Bazar, Bilaspur, Durg, Janjgir-Champa, Raigarh, Raipur, Rajnandgaon
Banking, Financial Services and Insurance (BFSI)	Medium	Baloda Bazar, Bilaspur, Durg, Janjgir-Champa, Raigarh, Raipur, Rajnandgaon
Communication	Medium	Baloda Bazar, Bilaspur, Durg, Korba, Raigarh, Raipur, Rajnandgaon
Food Processing	Medium	Balod, Bastar, Dhamtari, Durg, Janjgir-Champa, Kanker, Korba, Mahasamund, Raipur, Rajnandgaon, Surguja
Transportation & logistics/ warehousing/ packaging	Medium	Baloda Bazar, Bilaspur, Durg, Korba, Raipur

Source: Primary interactions and Deloitte Analysis

2. **Collaborate with Industry Bodies/ Associations:** The skill development institutes in Chhattisgarh should collaborate with the Directorate/Industry Bodies/Associations for design of the practical component of the training programme and training delivery in the identified high growth sectors especially for SCVT courses. They should invite senior persons from the respective Directorates/Federations/Associations as guest lecturers in an effort to update the trainees on the latest trends in the sector. An indicative list of sector wise directorate/industry bodies/ associations for collaboration is provided below:

S#	Sector	Directorate/Federation/Industry Association
1	Agriculture	Directorate of Agriculture, Directorate of Horticulture, Directorate of Animal Husbandry, Directorate of Fisheries, CHT State Agricultural Training Academy
2	Manufacturing (mineral/metal based)	Chhattisgarh Steel Chambers, Sponge Iron Association, Chhattisgarh Mini Steel Plant Association,
3	Building and Construction	Chhattisgarh State Industrial Development Corporation, Confederation of Real Estate Developer's Associations of India (CREDAI)
4	Mining and Quarrying	Directorate of Geology & Mining
5	Trade (Wholesale + Retail)	Chhattisgarh Chamber of Commerce & Industries, PHD Chamber of Commerce, MSME-DI, Raipur, Chhattisgarh State Cooperative Marketing Federation (MARKFED), Urla Industries Association
6	BFSI	Directorate of Institutional Finance, State Level Banker's Committee, Lead Bank of respective districts

3. **Encourage Entrepreneurship:** Skill Development Institutes may create an appropriate environment to foster innovation and entrepreneurship by introducing a compulsory module on entrepreneurship in their syllabi.

4. **Facilitate Tie-ups with Industries:** Additionally, the skill development institutes may facilitate tie-ups with the key players in the state in the respective high priority sectors for utilizing their infrastructure and expertise for training delivery and opportunities of apprenticeship/internship and placements.

S#	Sector	Indicative Companies
1	Manufacturing (mineral/metal based)	Steel Authority of India (SAIL), Jindal Steel & Power Ltd., Monnet Ispat & Energy Limited, ACC Limited, Lafarge India, Ultra tech Cement Limited, Ambuja Cement, NTPC, BALCO
2	Building and Construction	CG Buildcon Private Limited, Monika Builders & Developers, Avinash Group, Rajhans Consultants and Technocrats Private Limited, VG Real Estate, Pioneer Homes
3	Mining and Quarrying	South Eastern Coalfields Limited (SECL), BALCO, HINDALCO, Chhattisgarh Mineral Development Corporation(CMDC)
4	Banking, Financial Services and Insurance (BFSI)	Nationalized banks (State Bank of India, Punjab National Bank etc.), private sector banks (ICICI Bank, HDFC Bank etc.), Bharti Axa, Regional Rural Banks (Chhattisgarh Rajya Gramin Bank- Raipur, Durg-Rajnandgaon Gramin Bank- Rajnandgaon etc.) and Cooperative Banks (The Raipur Urban Mercantile Cooperative Bank etc.)
5	Transportation & Logistics	ARC, Safexpress, GATI, TCI

5. **Language and Soft Skills Training:** Bridge courses like spoken English and personality development are most popular amongst the youth in the state. The private training providers in Chhattisgarh may consider utilizing their existing training infrastructure as 'finishing schools' with focus on providing training on communicative English, soft skills, personality development, basic IT etc. to their trainees across sectors. Additionally, foreign language courses esp. Chinese may also be imparted to graduates across all streams to improve their employability in the global job market especially for the upcoming industrial investments.

4 District Level Skill Gap Assessment

4.1 Balod

4.1.1 District Profile

Balod district, located in the central part of Chhattisgarh was carved out of Durg district in 2012. It is located in the southern portion of the fertile Chhattisgarh plain. The district is part of Durg division. It is surrounded by Durg on the north, Dhamtari on the east, Kanker on the south and Rajnandgaon on the west. It extends over an area of 3449 sq. Km, which is 2.6% of the total state area. The district is divided into 5 tehsils viz. Balod, Gunderdehi, Dondilohara, Dondi and Gurur and 695 villages⁹¹. The rivers Sukha and Tandula flow through the district.

Forests account for just 8.97% of the total geographical area of the district⁹². The forest cover of Balod is significantly lower than the state average & comprises of very dense forest (5.7%), moderately dense forest (67.9%) and open forest (26.3%)⁹³. The district is well known for the iron-ore mines of Dalli Rajhara.

Map 2: Balod District

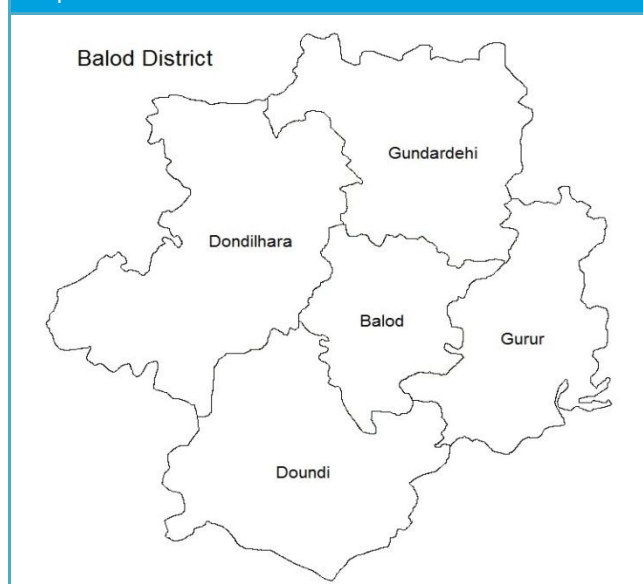


Table 36: Balod District Profile

#	Indicator	Balod	Chhattisgarh	% Share
1.	Area, in sq.km.	3449 ⁹⁴	135,190	2.6
2.	No. of sub-districts	5	149	3.4
3.	No. of inhabited villages	695	20126	3.5
4.	No. of households (lakhs)	1.73 ⁹⁵	56.51	3.1
5.	Average Land holding size (Ha)	1.39 [*]	1.17	-
6.	Forest area cover	8.97% [*]	41.18%	-

Source: Census 2011; Directorate of Economics and Statistics-Govt. of Chhattisgarh; State of Forest Report 2011-Forest survey of India; Deloitte Analysis. * Data is for undivided Balod (including Bemetara and Durg)

⁹¹ Census 2011

⁹² State of Forest Report 2011-Forest survey of India (Data is for undivided Durg which includes Bemetara and Balod)

⁹³ ibid.

⁹⁴ Deloitte Analysis

⁹⁵ Deloitte Analysis (Divided according to the population ratio of Balod, Bemetara, Durg)

4.1.2 Demography

As per Census 2011, Balod has a total population of 8, 26,019 of which 87.2% of the people reside in the rural areas. The decadal population growth in Balod during 2001-2011 was 18.98%⁹⁶, which is lower than the population growth of 17.24%⁹⁷ during the period 1991-2001. As of 2011, Balod ranks 13th among all 27 districts of Chhattisgarh in terms of population. The population density and sex ratio is higher than the state average. About 62.9% of the population is in the working age population class group.

Table 37: Demographic Indicators of Balod

Demography	Balod	Chhattisgarh
Population (2011)	8,26,019	2,55,40,196
Population 15-24 (2011)	1,73,880	49,89,339
Decadal Population Growth Rate (2001-11)	18.98%*	22.6%
Population density per sq. km (2011)	392*	189
Percentage of Urban Population (2011)	12.8%	23.2%
Percentage of SC population (2011)	13.7%*	12.8%
Percentage of ST population (2011)	11.9%*	30.6%
Average household size	4.77*	4.54
Sex Ratio (2011)	1023	991
Working age population (15-59) as a percentage of total population, %	62.9%	60.1%
Per Capita Income (2009)	Rs. 32227 ⁹⁸	Rs.28263
Source: Census of India 2011; UNFPA Population Projection; Directorate of Economics and Statistics- Govt. of Chhattisgarh; Deloitte Analysis. * Data is for undivided Balod (including Bemetara and Durg)		

Key Observations:

- ✦ The sex ratio of Balod at 1023 females per 1000 males is much higher than the state average of 991 females per 1000 males.

⁹⁶ Data is for undivided Bemetara (including Durg and Balod)

⁹⁷ *ibid.*

⁹⁸ At 2004-05 constant prices, Deloitte Analysis

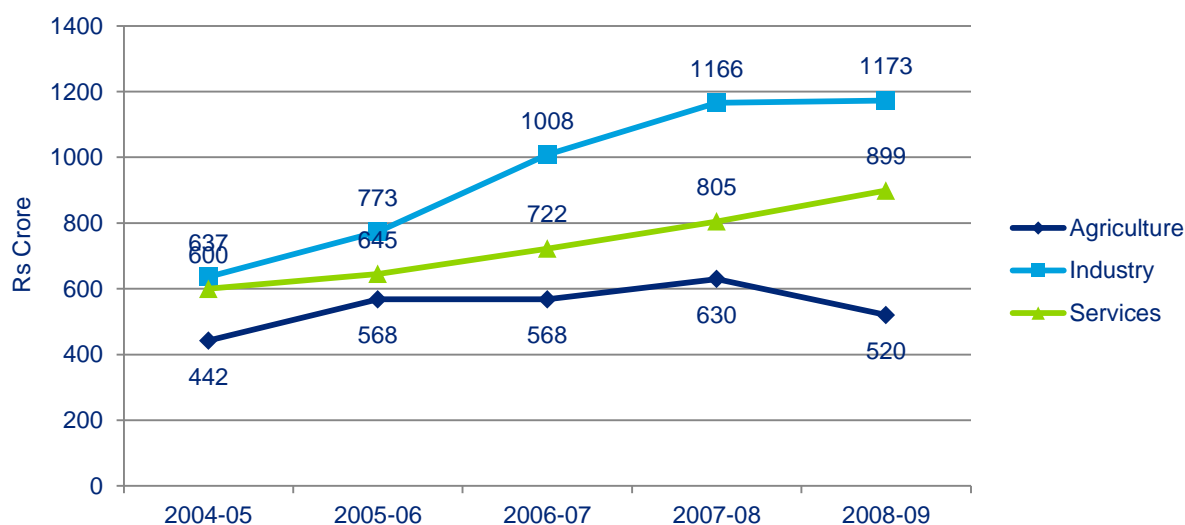
4.1.3 Economic Profile

Balod was formed in the year 2012 after it got separated from Durg. As per the analysis, Gross District Domestic Product (GDDP) of Balod in the period 2005-09 (estimated at constant price, 2004-05) has grown at a CAGR of 11.5% which is higher than the state growth rate of 9.6% in the corresponding period. At Rs 2591.60 crores, Balod ranked 9th in the state in terms of economic activity in 2009. Balod contributed 3.76% to the Gross State Domestic Product in the same year.

The economy of Balod district is pre-dominantly Industry sector based, **with Industries' share in GDDP being 45.2% in 2008-09**. This is followed by Services sector with 34.7% share in the GDDP and the Agriculture sector at a share of 20.1%. Both Industry and Services sectors have grown consistently over the period 2005-09. The Industry sector has shown the highest growth rate in the district over the period 2005-2009 with a CAGR of 16.5% followed by Services and Agriculture sectors which registered a CAGR of 10.6% and 4.2% respectively.

The sector-wise GDDP growth and distribution from 2005-09 is provided below.

Figure 45: Sectoral Share of GDDP, 2004-05 to 2008-09, Balod



Source: Directorate of Economics and Statistics, Govt. of Chhattisgarh; Deloitte Analysis

Agriculture sector

The contribution of Agriculture sector (agriculture, forestry & logging and fishing) to GDDP was 20.1% in 2008-09. Agriculture is the main contributor in the total output of the Agriculture sector contributing 83.6% in the year 2008-09.

The primary occupation of the local inhabitants in the district is agriculture. The main reason behind the high productivity of crops in the district can be attributed to its location in the fertile Chhattisgarh plain. The district has two dams, Tandula and Aadmabaad built on the rivers Tandula and Sukha. The rivers are a source of irrigation facility to the district. Besides, the tropical climate of Balod also helps in the crop production. The main crop of the area is Paddy. Other crops include soya bean, jowar, maize, sunflower and groundnut. People also grow varieties of vegetables and fruits like Mangoes, Bananas etc.

People also earn their livelihood through collection of minor forest produce. Balod falls under the Durg forest circle and the important non-nationalized species available in the district are Palash, Mahua, Kusum (Oil Seed), Shahad, Aonla, Baheda, Bel, Kalmegh, Nagarmotha.

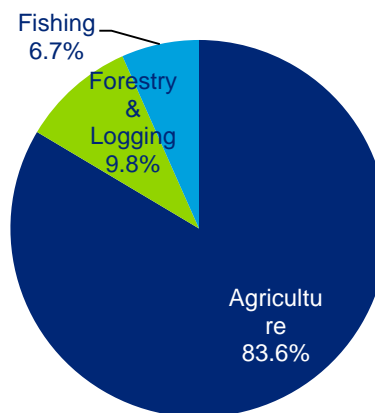
Industry sector

The Industry sector (manufacturing, mining & quarrying, construction, electricity, gas and water supply) contributed 45.2% to the GDDP in 2008-09. Manufacturing is the major contributor within the Industry sector, with a sectoral share of 50.6%.

There are no large scale industries at Balod. The key industries in the MSME sector mainly include agro based industries. The district has many rice mills, saw mills, timber mills and sugar mills. Also small scale industries of brick, molasses (gurh), utensils, bamboo works, shoe, soap and spice etc. are present in the district.

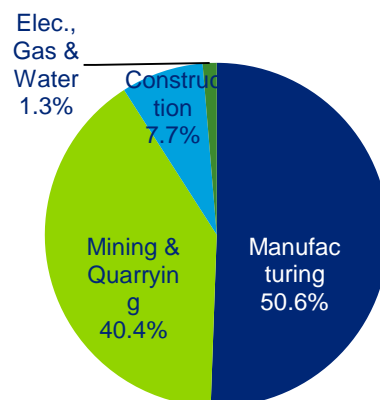
Balod is rich in minerals. Mining & Quarrying contributed to 40.4% of the total sectoral output in 2008-09. The district is famous for Dalli Rajhara iron mines. The iron ores mined from this area are of the hematite and magnetite variety. These are captive ore mines for the Bhilai Steel Plant. The mineral revenue receipt from iron ore mining in the district in 2012-13 was Rs. 31597.68 lakhs. Deposits of dolomite and limestone are also found in the district.

Figure 46: Sub-sectoral break-up in Agriculture Sector (2008-09), Balod



Source: Directorate of Economics and Statistics- Govt. of Chhattisgarh; Deloitte Analysis

Figure 47: Sub-sectoral break-up in Industry sector (2008-09), Balod



Source: Directorate of Economics and Statistics- Govt. of Chhattisgarh; Deloitte Analysis

Table 38: Mineral Revenue Receipt (Rs. Lakhs) in 2012-13, Balod

Major Minerals	Minor Minerals	Others	Total
31597.68	98.83	24.90	31721.41
Source: Directorate of Geology & Mining, Chhattisgarh			

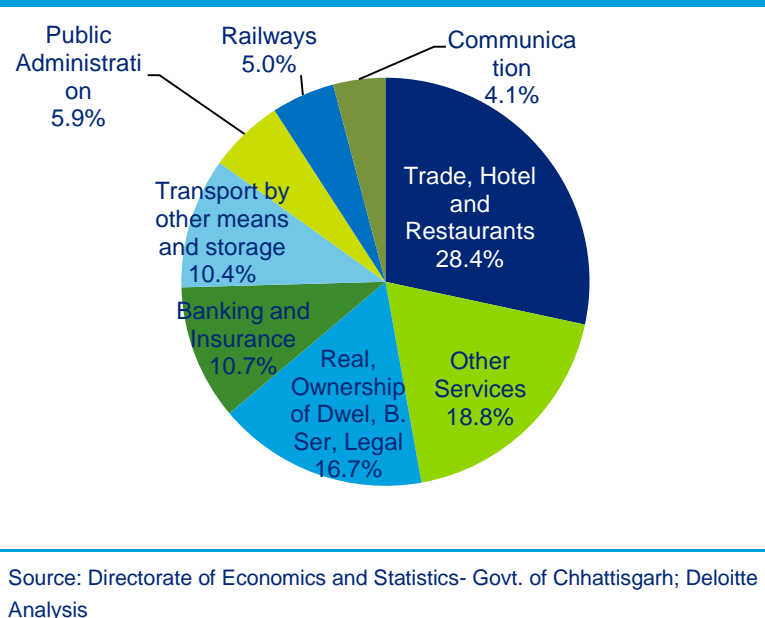
Construction is also a major contributor within the Industry sector, with a sectoral share of about 7.7% in 2008-09. The total budgeted value for ongoing building and construction activities (building and roadwork) in Balod for the year 2013-14 is allocated at Rs. 106 crores⁹⁹.

Services sector

The Services sector contributed to about 34.7% of the GDDP in the year 2008-09. The key contributor to the sector is trade, hotel and restaurants contributing approximately 28.4% in the Services sector GDP. Dalli Rajhara and Balod are the cities in the district with an ancient heritage. Rajhara Baba Mandir Saptagiri Park, Dev Pandum, Munda Pahad, Bordih Dam, Mahamaya Mandir, Siyadevi, Ganga Maiya, Sati Chabutra, Prachin Kila are some chief sightseeing spots in the district. The district is well connected to the rest of the state by rail as well as road networks.

With a CAGR of about 16.9% and 19.8% over the period from 2004-2009, Communication and Banking & Insurance sectors respectively were amongst the fastest growing sectors in the district, though their absolute sizes are small.

Figure 48: Sub-sectoral break-up in Services sector (2008-09), Balod



Key Observations:

- ♦ The economy of Balod district is pre-dominantly Industry sector based, **with Industries' share in GDDP being 45.2% in 2008-09**. This is followed by Services sector with 34.7% share in the GDDP and the Agriculture sector at a share of 20.1%.
- ♦ The Industry sector has registered the highest growth rate in the district over the period 2005-2009 with a CAGR of 16.5% followed by Services and Agriculture sectors which registered a CAGR of 10.6% and 4.2% respectively.

⁹⁹ Chhattisgarh Public Works Department

4.1.4 Employment Profile

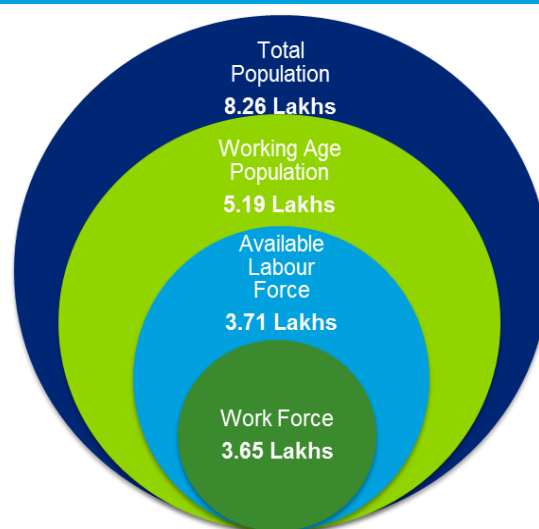
With a population of 8.26 lakhs in the year 2011, Balod accounts for nearly 3.23% of the state's population.

The adjacent figure summarizes the estimated workforce in Balod in the context of the total population of the district.

Out of the total population of 8.26 Lakhs, the working age population (between 15-59 age group) constitutes nearly 62.9%.

Based on the labor force participation rate and the worker participation rate estimates for the state, the available labour force is estimated to be 3.71 lakhs, and the workforce is estimated at 3.65 lakhs or nearly 70% of the working age population.

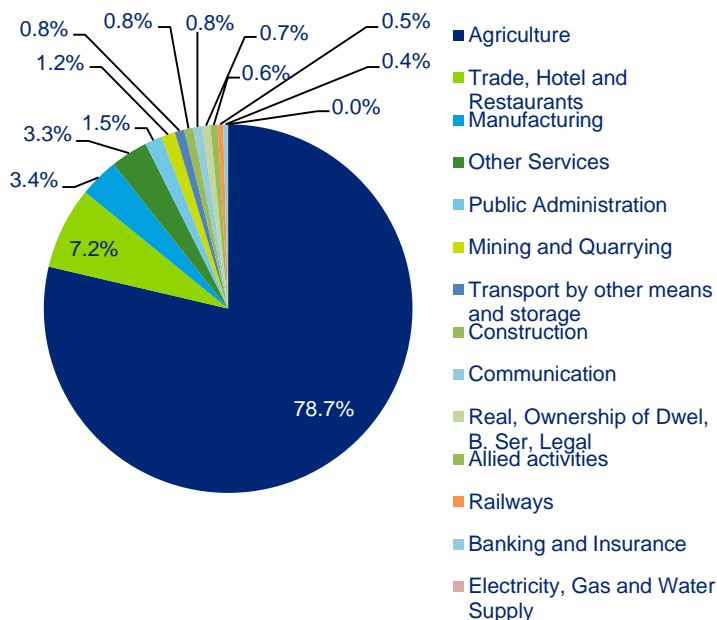
Figure 49: Total Workforce in Balod (2011)



Source: Census 2011 and Deloitte Analysis

More than three-fourth of the workforce in the

Figure 50: Sector wise employment in Balod (2011)



Source: Census 2011 and Deloitte Analysis

district is engaged in Agriculture sector in 2011, with the sector contributing around 30.1% to the GDDP. The Services sector which contributed about 42.7% of the GDDP in the year 2011 is the second highest employer in the district employing around 15.2% of the workforce.

The sector-wise employment of Balod for the year 2011 has been shown in the adjoining figure.

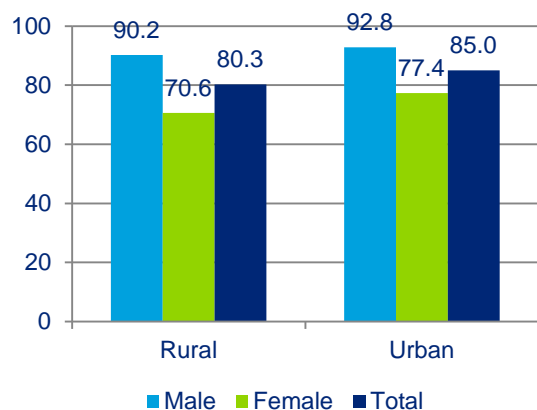
Agriculture accounted for around 78.7% of the total employment in the district followed by trade, hotels and restaurants (7.2%), manufacturing (3.4%), other services (3.3%) and public administration (1.5%). The top five sectors in the district in terms of

employment account for around 94% of the total employment of the available workforce in Balod in 2011.

4.1.5 Education Infrastructure

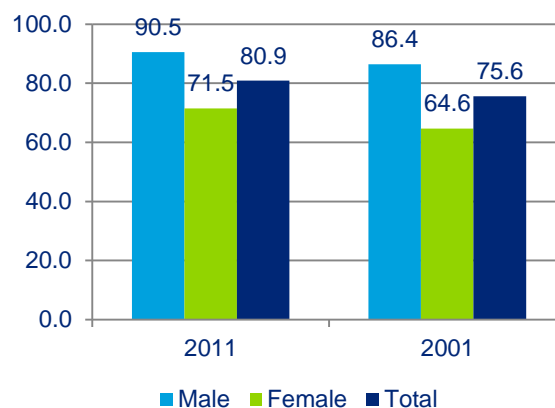
The literacy rate in Balod has improved from 75.6%¹⁰⁰ in 2001 to 80.9% (Deloitte Analysis) in 2011. It is significantly higher as compared to the state's literacy rate of 70.3% in 2011 as well as the all-India literacy rate of 73%. In 2011, male and female literacy rates stood at 90.5% and 71.5% respectively showing high gender disparity¹⁰¹. However, both figures improving compared to the 2001¹⁰² figures of 86.4% and 64.6% respectively.

Figure 51: Literacy rate 2011 (by residence), Balod



Source: Census of India 2011, Deloitte Analysis

Figure 52: Literacy rate (by Gender), Balod



Source: Census of India-2001 and 2011, Deloitte Analysis

School Education

Balod has 964 primary schools, 482 upper primary schools, 59 secondary schools and 152 higher secondary schools. Net enrolment ratio (NER) at the upper primary level (66.3%) for the year 2010-11 is comparable to the state NER of 67.8%.

Table 39: Status of school education infrastructure in Balod, 2013

#	Educational Statistics	Units in Balod	Units in Chhattisgarh	% Share of District in State
1	Primary School	964	35588	2.7%
2	Upper Primary School	482	16442	2.9%
3	Secondary School	59	2632	2.2%
4	Higher Secondary School	152	3548	2.8%
5	NER (Upper Primary) (2010-11)	66.3% ¹⁰³	67.8%	-

Source: DISE 2012-13

¹⁰⁰ Data is for undivided Durg (including Bemetara and Balod)

¹⁰¹ Deloitte Analysis

¹⁰² Data is for undivided Durg (including Bemetara and Balod)

¹⁰³ ibid.

Vocational Education

For vocational training, Balod has a total of **7 ITI's in the district**, all of which are Government Industrial Training Institutes. Balod has no woman ITI. The total capacity of the ITIs in the district is 984. Computer Operator and Programming Assistant, Electrician and Fitter courses have the maximum units affiliated among ITIs.

The number of courses available in ITIs and their capacity are listed in the table below.

Table 40: ITIs in Balod and their capacity

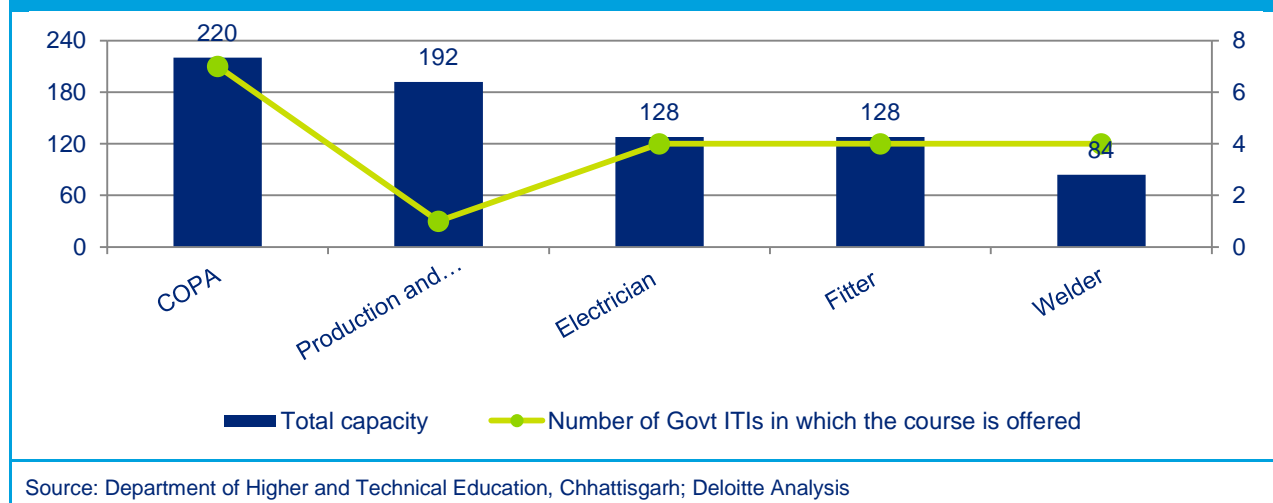
Name of ITI	Number of courses offered	Total Units affiliated	Total Capacity
Government Industrial Training Institute, Balod	6	11	176
Government Industrial Training Institute, Dondilohara	11	26	428
Government Industrial Training Institute, Sanjari	2	2	36
Government Industrial Training Institute, Suregaon	2	2	36
Government Industrial Training Institute Gunderdehi	5	9	144
Government Industrial Training Institute Rajhara	5	9	144
Government Industrial Training Institute Dondi	1	1	20
Total	32*	60	984

Source: Department of Higher and Technical Education- Chhattisgarh; Deloitte Analysis

*Total number of different courses offered by ITI's in Balod

The major courses offered in the ITIs and their capacity in Balod is given in the figure below.

Figure 53: Major courses offered in Govt. ITIs and their capacity in Balod



According to Chhattisgarh State Skill Development Mission Website, as of 12th March, 2014, Balod has **55 Vocational Training Providers (VTPs)** under which there are 1646 registered beneficiaries. The following table highlights the courses offered in vocational education, which currently meet requirements of about 10 sectors.

Table 41: Courses offered in vocational education, Balod

Sector	ITI trades and Units affiliated	Courses Offered by VTPs
Auto and auto components Electronics and IT hardware Chemicals and pharmaceuticals	Electrician(8), Fitter(8), Mechanic and machinist (5), Production and Manufacturing (12), Welder(7),	Electrical, Fabrication, Automotive Repairs
IT and ITES Tourism, hospitality and travel Organized retail Banking, financial services and insurance	Computer Operator and Programming Assistant(11), Stenography(2), Driver cum mechanic (4)	ICT, Soft skill
Textiles and clothing		Textile sector
Furniture and furnishing	Carpenter(1)	
Unorganized sector (particular reference to agriculture, security, plumbing, domestic worker, foundry, etc.)	Mining Machine Maintenance (2)	
Source: CSSDA Website		

Higher Education

The status of higher education in Balod is not very promising. Out of a total 590 colleges in the state, only 7 colleges are in the district indicating the district's share in the higher education space of the state at just 1.2%. This is lower in comparison to the share of population of Balod to the state (3.2%). All the colleges offer general degree courses and are affiliated to Pt. Ravi Shankar Shukla University.

Key Observations:

- ♦ There are 7 ITIs and 55 VTPs active in the district.
- ♦ The share of Balod in the higher education space of the state is just 1.2%.

4.1.6 Youth Aspirations

In the process of capturing the aspirations of the youth population in Balod, focused group discussions were held with youth from educational institutions as well as residing in rural areas to understand their concerns, areas of interest, future dreams and goals. The FGD in Balod was conducted at the Government ITI-Balod, AISECT Computer centre and Junjer village. People who participated in the FGD were from varied age groups, with the majority of the participants in the age group of 18-22 years. 52% of the participants were males while 48% were females. The educational qualification of about 72% of the participants was high-school level or below with 20% of the respondents being graduates and 8% being diploma holders.

The key observations about aspirations of the youth of the district are highlighted below:

Table 42: Youth Aspiration – Key Responses - Balod

Parameters	Responses
Job Preference	Most of the youth preferred Government jobs over private jobs due to the job security offered in a Government job. They also preferred regular/ salaried employment over self-employment.
Preferred Course	<ul style="list-style-type: none"> • Training for job readiness is the most popular among the youth. • Trades like COPA (Computer Operator and Programming Assistant), Electrician, Fitter and Welder are preferred amongst boys. • Girls indicated preference for trades like COPA, Textiles & garments, Tailoring, Beautician and Office Assistant. • Apart from the regular courses offered by educational/ training institutions; spoken English, basic communication skills, personality development, soft skills & basic IT skills are considered to be very important by the youth.
Migrating for job	Most of the youth (49%) surveyed in the district are willing to migrate within Chhattisgarh esp. to developing cities like Raipur, Bilaspur etc. in search of better employment prospects. Around 33% of the youth prefer migrating within the district esp. to the district headquarter of Balod.
Salary Expectations	Average monthly salary expectation of youth ranges between Rs 15,000 –25,000/-
Areas of concern/ aspirations- Infrastructure	<p>Following views were expressed regarding infrastructure in educational institutions:</p> <ul style="list-style-type: none"> • Youth reported poor quality of infrastructure in the institutes in terms of lack of drinking water, library, toilets etc. • The inadequacy of sports equipment was also highlighted in the school.
Areas of concern/ aspirations-Course Curriculum	<ul style="list-style-type: none"> • Youth expressed that there should be more emphasis on computer courses in the institutes. • They feel that representatives from government training institutes and industries should visit the institutes to disseminate information. • Irregular examinations in the institute were one major concern highlighted by the youth. • Youth feel that institutes should focus more on soft skill and practical training besides technical know-how, as it is critical for securing a good job.
Other concerns	<ul style="list-style-type: none"> • Rural youth are not sufficiently aware about the various schemes introduced by the Government. • A very few of the respondents preferred to be self-employed.
Suggestions given by youth	<ul style="list-style-type: none"> • The youth expect Govt. to take up initiatives to improve infrastructure of the institutes in terms of supply of drinking water and toilet facility. • Youth expressed that Govt. should take measures to provide proper education facilities to the underprivileged people. • They voiced the need for more courses, practical classes, resourceful, efficient and regular teachers in the institutes.

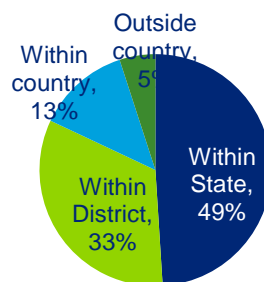
The findings of the sample survey conducted with youth at the gram panchayat level & those coming out from various educational institutions (Government & private) are presented below:

Job preference by youth

The majority of the youth surveyed (49%) **prefer to get a job within their home state** as is shown in the adjacent figure. Approximately 33% of them prefer to find a job within their district.

The survey highlights the fact that around **86% of the youth surveyed wanted to get a job within Chhattisgarh** thus demanding and necessitating the creation of suitable positions and absorption capacity for them in the employment market. The survey reveals that not many youth are interested to migrate out of state in search of jobs.

Figure 54: Job Preference by Youth

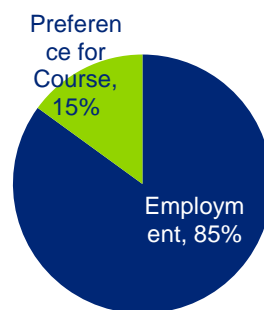


Source: Deloitte Analysis

Parameter for Institute Selection

A majority of the students surveyed (85%) selected an institute for higher education to seek better employment opportunities for themselves. Around 15% of the respondents quoted their preference for higher education/ trade in particular as their prime parameter while selection of an institute for higher education.

Figure 55: Parameter for Choice of Institute



Source: Deloitte Analysis

Youth Perception Mapping

Youth perception mapping was undertaken to understand their level of satisfaction with either their current institute or their experience and feedback on the available educational infrastructure. The results are summarized below:

Low satisfaction with placement / jobs available post training: Around 67% of the students surveyed expressed their dissatisfaction with the placement opportunities available in the institute or jobs available post training. They shared their expectation of being provided with a placement opportunity by the institute or facilitate a tie-up with nearby companies to give them an experience of hands on training.

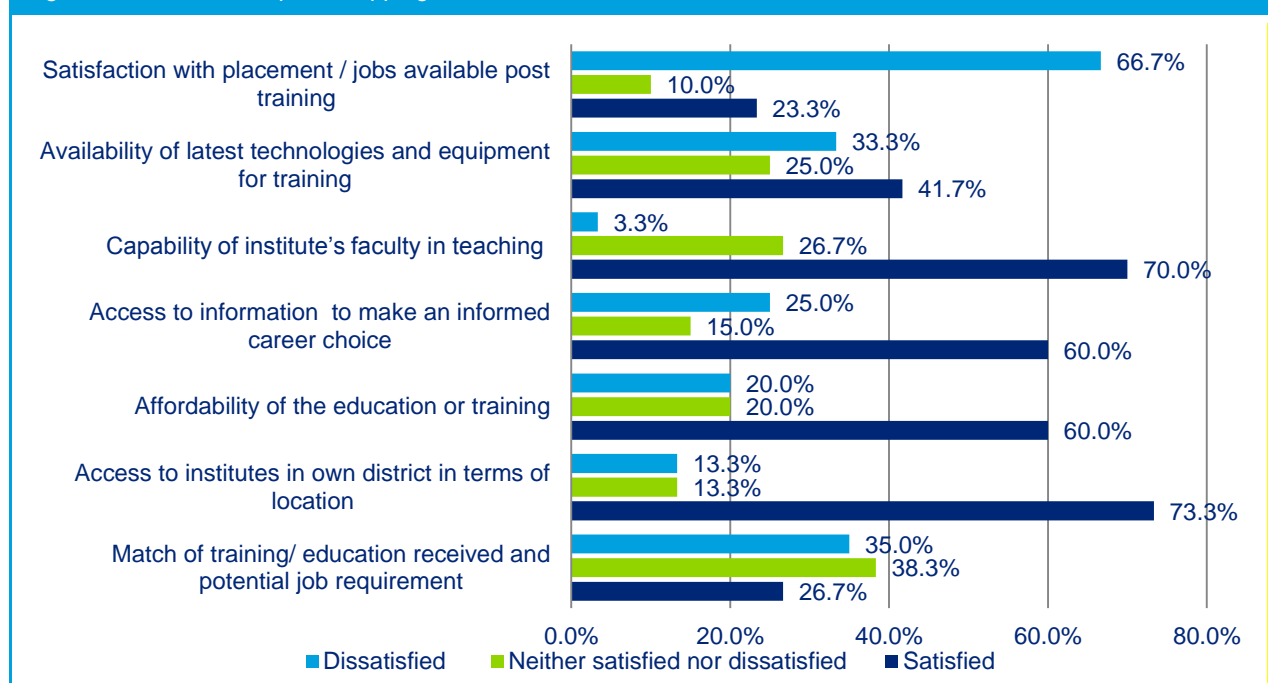
Availability of latest technologies and equipment for training: Around 42% of the students surveyed expressed their satisfaction with the availability of latest technology & equipment for training in the institute while 33% of them shared their dissatisfaction with the same. The majority of respondents surveyed felt their institutes are sufficiently equipped with latest technology for training.

Satisfaction with capability of institute's faculty in teaching: Around 70% of the students surveyed expressed their satisfaction over the quality of faculty present in the institutes. However, they demanded that the number of faculty should be increased as per the demand of the course and visiting faculty should be invited from outside for greater exposure of the students.

Satisfaction with the access to information to make an informed career choice: While 60% of the students surveyed in the district vouch for accessibility to information to make an informed career choice, around 25% of them felt that they do not get proper accessibility to information to make an informed career choice. The concern was raised more by the rural youth who reported the **absence of appropriate assistance or counselling in their locality to get suggestions and guidance on future career directions.**

Affordability not as high a concern as quality and value for money in education or training: Majority of the students (around 60%) felt that the fees charged by the education/ training institute was not a barrier for them and considered it to be affordable for them. They raised their concern that the quality of the training programme offered should be commensurate with the fees charged.

Figure 56: Youth Perception Mapping - Balod



Source: Deloitte Analysis

Access to institutes in terms of location is not an issue: 73% of the students surveyed expressed their **satisfaction with the accessibility** of the educational institutes in terms of location. They found the institute to be located in an accessible area and safe in terms of the duration of classes. Around 13% students felt the educational institutes to be inaccessible in terms of location and majority of them were rural youth.

Dissatisfaction with the alignment of training/education received with job requirements: Approximately 35% of the students surveyed felt that the training/ education received by them matched the potential job requirements of the employers while around 27% of them felt that there is a need to align the training/education provided in the district in terms of job requirements of the business.

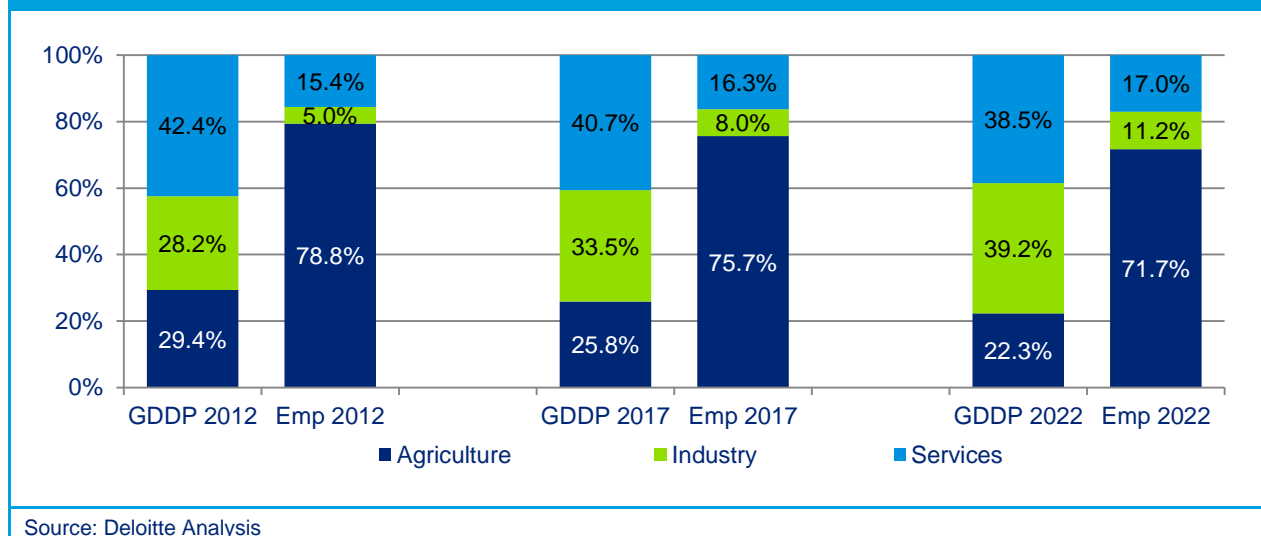
Key Observations:

- ♦ Govt. Jobs are preferred by youth over private jobs. The expected salary ranges from Rs. 15,000- Rs. 25,000/-. While boys are willing to migrate to outside district and state for jobs and education, it was vice versa for girls, whose choice of institute/ job selection is based on proximity to home.
- ♦ Girls preferred courses on cutting, tailoring, beauty parlor while amongst boys, computer related courses, fitter, electronics are more popular courses.
- ♦ Majority of youth stressed the need to address Infrastructure gaps in the institutes- particularly updating the library along with provision for drinking water facility and toilets.
- ♦ Youth are not aware about the different Government initiatives on skill development.

4.1.7 Skill Gap Assessment

The working age population (15-59) constitutes 62.9% of the total district population in 2011 and is expected to increase to 65.8% by 2022.

Figure 57: Comparison of Sectoral share in GDDP & Employment, Balod



Based on our analysis and primary interactions, the Agriculture sector is expected to play a significant role and will continue to be an important sector in terms of providing employment in the district. The Agriculture sector despite having the lowest contribution in the district economic profile accounts for the largest share of workforce. Moreover, its relative contribution to the economic output is expected to diminish over the decade however in terms of employment it is still anticipated to be the major employer in the district. If the trends in employment continue, in 2021-22, the share of employment across the Agriculture sector is expected to decline to 71.7% as compared to 78.8% in 2012.

The Industry and Services sector employment share are estimated to increase to 11.2% and 17.0% respectively, as indicated in the table above. This trend appears to be in line with the national trend as well where people are moving out of the Agriculture sector and moving into the industry and Services sectors respectively. The comparison in sectoral share in GDDP and employment also depicts the significant disparity in the structures of economy and employment in the district. This phenomenon is typical of the economy-employment structures in most districts and states in India. It indicates the significant task ahead in aligning employment with the economic output of different sectors.

Incremental Human Resource Demand

As per the methodology, the total incremental demand for manpower in Balod from 2012 to 2022 is expected to be around 0.97 lakh. Following table provides the break-up of the incremental demand for manpower in Balod as per the skill levels required.

Table 43: Estimated Incremental Human Resource Demand ('00) by Skill Level in Balod

	2012-17	2017-22	Total
Skilled	60	74	134
Semi-Skilled	110	139	249
Minimally Skilled	275	316	591
Total	444	530	974
Source: Deloitte Analysis			

Some of the key trends observed on the demand side include

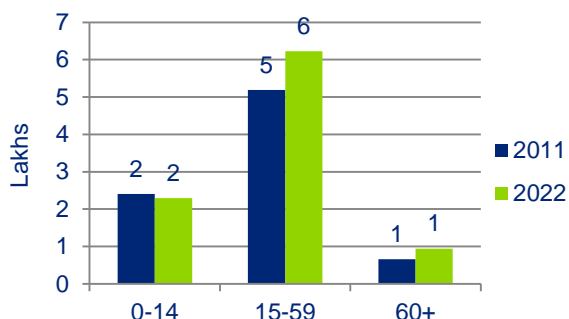
- ♦ *Agriculture will be the largest incremental demand generating sector (40.1%) with demand largely in the minimally skilled workers (87%).*
- ♦ *Within the Industry sector, the expected growth sectors in the district in terms of incremental demand for manpower include mining and quarrying (22.5%), food processing - primarily agro based (5.0%) and building and construction (3.4%). Presence of large deposits of iron ore in the Dalli Rajhara iron mines is also anticipated to facilitate the growth of manufacturing units (primarily mineral/metal based)*
- ♦ *In the Services sector, the sectors expected to employ maximum incremental demand for workforce include trade (6.0%) and BFSI (3.2%).*
- ♦ *Analysis of formal and informal employment indicates that the incremental demand for manpower in formal sector would come mainly from Mining & Quarrying, BFSI, Public Administration, Building and Construction and Trade (Retail + Wholesale).*
- ♦ *Majority of demand for incremental manpower in the informal sector is projected to come from Agriculture, Food Processing, Trade (Retail + Wholesale), Mining & Quarrying and Media & Entertainment.*

Table 44: Incremental Human Resource Demand ('00) by Skill Level in Balod - Key Sectors

#	Key Sectors	2012-17				2017-22			
		Skilled	Semi-skilled	Minimally Skilled	Total	Skilled	Semi-skilled	Minimally Skilled	Total
1	Agriculture	6	20	174	200	6	19	166	191
2	Mining & Quarrying	7	22	45	74	14	43	87	145
3	Trade (Retail + Wholesale)	4	15	10	29	4	15	10	29
4	Food Processing	2	7	14	23	3	8	15	26
5	Building & Construction	2	6	7	15	3	7	8	19
6	BFSI	6	6	1	13	9	8	1	19
7	Manufacturing (mineral/metal based)	3	8	3	14	3	9	3	16
8	Others	28	26	23	77	32	30	25	87
9	Total	60	110	275	444	74	139	316	530
Overall Incremental Demand					974				
Source: Deloitte Analysis									

Incremental Human Resource Supply

Figure 58: Age wise distribution of population, Balod 2011 and 2022 (projected)



Source: Census 2011 and Deloitte Analysis

The population of Balod is expected to increase from 8.3 lakhs in 2011 to 9.5 lakhs in 2022. The adjacent figure provides the current and projected population across various age groups. As per the analysis, the number and proportion of children in 0-14 age group is projected to fall by about 11,000 children, amounting to a fall of 4.7% between 2011 and 2022. The number of persons in the working age group is expected to increase by around 1 lakh during the same period. This represents a potential demographic dividend for the district with a large increase in the employable population. On the other hand, it presents a huge challenge for the state to make available higher

education and skill development facilities as well as ensure productive employment opportunities for its working age population.

As per the methodology, the estimated incremental manpower supply over a period of 10 years (2012-22) will be around 1 lakh. Incremental manpower supply can be further classified into skilled, semi-skilled and minimally- skilled as per the education qualifications and estimated output of educational and vocational training institutes in the district.

Table 45: Estimated Incremental Human Resource Supply ('00) by Skill Level in Balod

	2012-17	2017-22	Total (2012-22)
Skilled	44	46	90
Semi-Skilled	276	276	552
Minimally Skilled	180	180	360
Total	500	502	1002

Source: Deloitte Analysis

Some of the key trends observed on the supply side include

- Proportion of incremental supply of semi-skilled manpower is 55%, compared to 36% of minimally skilled and 9% of skilled workforce (2012-22).
- Balod has only 7 out of 590 colleges in the state indicating the district's share in the higher education space of the state at just 1.2%. This is much lower than the corresponding share of population of Balod in the state (3.2%). This also reflects in the proportion of skilled workforce in the district which is anticipated to be the least (9%) and likely to remain constant over the decade.
- The supply of semi-skilled workforce in the district is estimated to be the highest over the two time periods which are in-line with the current focus of government in improving the skill development space of the state.
- Impact of Migration is expected to be inward from other states and districts primarily across minimally skilled category and accounts for around 1.7% of the total supply in the district.

Incremental Demand Supply Gap

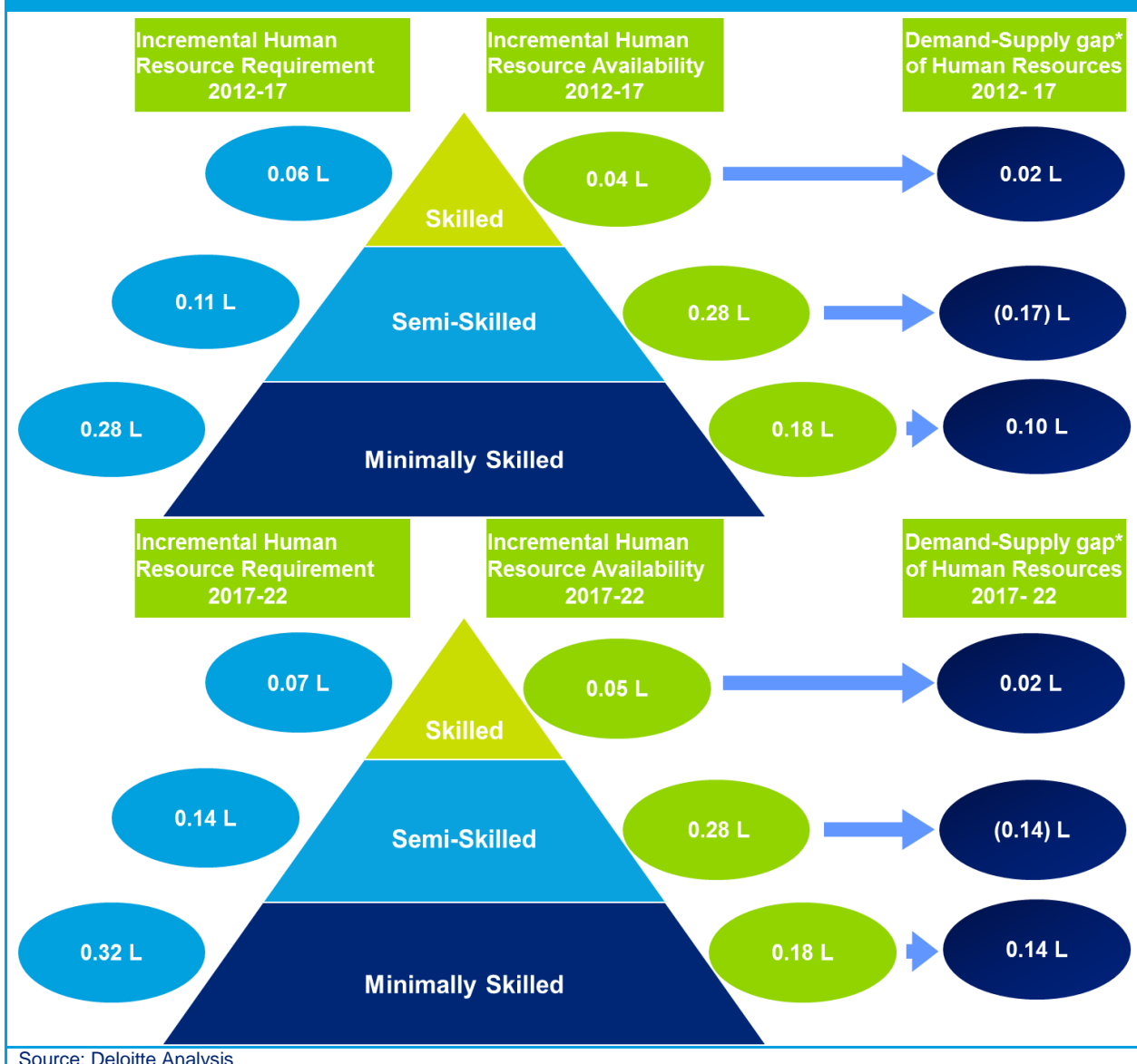
During the period 2012-22, the incremental human resource demand in Balod across all skill levels is estimated to be 0.97 lakh while the supply is projected to be 1.0 lakh indicating thus a surplus of 0.03 lakh people (refer table below). There is estimated to be an excess demand across skilled and minimally skilled segments while there is an excess supply over the semi-skilled segment. This indicates a potential for skilling & shifting semi-skilled workforce into more productive job roles assumed at skilled segment.

Table 46: Projected Demand Supply gap ('00) by skill levels in Balod

#	District Skill Gap	2012-17				2017-22			
		Skilled	Semi-skilled	Min. Skilled	Total	Skilled	Semi-skilled	Min. Skilled	Total
1	Incremental HR Requirement (Demand)	60	110	275	444	74	139	316	530
2	Incremental HR Availability(Supply)	44	276	180	500	46	276	180	502
3	Demand-Supply Gap	15	(166)	95	(56)	28	(137)	137	28
	Overall Demand-Supply Gap				(28)				
Source: Deloitte Analysis									

During the period 2012-22, the incremental manpower demand supply gap of the district (across all sectors mentioned above) is expected to be a surplus of about 0.03 lakh people with the excess supply across the semi- skilled segment as shown in the following figure.

Figure 59: Incremental Demand-Supply Gap (in lakhs) , Balod



Some of the key trends observed on the demand-supply gap of the human resource include

- ✦ The composition of the human resource demand supply gap in the district over the two different time periods i.e. 2012-17 and 2017-22 is anticipated to remain the same.
- ✦ The excess demand of skilled resources in the district is expected to continue over the decade. This is in line with presence of few higher education institutes in the district. Moreover, there seems to be **mismatch between outputs** from higher educational institutions in the district (87% in general degree courses) **to job specific skills** required by sectors having high demand for skilled labor.
- ✦ Due to the unmet demand of skilled workers in the district, the excess supply of semi-skilled work force in the district can be skilled appropriately to move to the next productive employment opportunity.

- ♦ *The trend of excess supply is likely to continue in the semi-skilled segment across both the periods. However, in terms of educational qualification, approximately 82% of the total semi-skilled workforce is estimated to be class 12 pass outs having undergone no job/skill specific training. This indicates that most of the surplus supply of semi-skilled labor is actually untrained, and if only outputs of semi-skilled workers from ITI/VTPs are considered, there is a supply deficit in that category also. In addition, primary interactions have raised **employability & deficit in specific jobs/ skills amongst the workers** as major concerns despite high overall supply in semi-skilled category. These have been captured in the qualitative skill gaps section below.*

Qualitative Skill Gaps

The qualitative skill gaps that were highlighted during our primary interactions with industry at Balod are provided in the table below.

Table 47: Qualitative Skill Gaps

Sector	Level	Skill Gaps
Agriculture	Tractor operator and mechanics/ Electricians/ Mechanics for repair & maintenance of agricultural tools & implements	<ul style="list-style-type: none"> ♦ Sufficient training to address tool & equipment failures like motor pump failure, gear damage, tyre puncture etc.
Mining & Quarrying	Managers/Engineer	<ul style="list-style-type: none"> ♦ Project Management and People Management Skills ♦ Knowledge of appropriate safety practices ♦ Knowledge of appropriate safety aspects
	Supervisors	<ul style="list-style-type: none"> ♦ Understanding of electrical and mechanical maintenance concepts ♦ Interpersonal and communication skills ♦ Understanding of product specifications ♦ Knowledge and implementation of safety practices ♦ Improve efficiency by avoiding wastage of resources
	Workmen/operators	<ul style="list-style-type: none"> ♦ Knowledge of basic machine operation ♦ Understanding of discipline, industrial rules, work related procedures etc. ♦ Ability to carry out basic troubleshoot in case of machine breakdown ♦ Practicing safety measures in the workplace ♦ Multi skilling
Trade (Retail and Wholesale)	Store/Department Manager	<ul style="list-style-type: none"> ♦ Understanding of cross functional activities in the store esp. logistics, marketing and merchandising ♦ People management skills ♦ Vendor Management ♦ Lack of IT skills
	Billing Associate/ Accountants/ Computer operators	<ul style="list-style-type: none"> ♦ Knowledge of transaction processing software and cash management ♦ Knowledge of tally/accounting practice
	Sales/Customer Service personnel	<ul style="list-style-type: none"> ♦ Product specific knowledge ♦ Customer service and Inter personal skills ♦ Communication skills

Sector	Level	Skill Gaps
Food Processing		<ul style="list-style-type: none"> ♦ Poor dressing sense
	Procurement Managers	<ul style="list-style-type: none"> ♦ Ability to forecast demand and undertake procurement accordingly ♦ Ability to locate and enter into relationships with farmers ♦ Lack of IT skills
	Plant Associates and operators	<ul style="list-style-type: none"> ♦ Limited basic engineering knowledge esp. on practical aspects, process knowledge e.g. distillation ♦ Lack of importance on wastage of resources.
	Material Handlers	<ul style="list-style-type: none"> ♦ Limited awareness on quality, health and hygiene awareness ♦ Limited basic computer skills including barcode reading
	Sales and marketing	<ul style="list-style-type: none"> ♦ Limited Communication skills, ability and willingness to understand the manufacturing process
	Machine Operators	<ul style="list-style-type: none"> ♦ Insufficient knowledge of machine operation and use ♦ Ability to understand & follow instructions/ manuals ♦ Limited ability to carry out basic repairs and troubleshooting
Building & Construction	Project Managers/Engineers	<ul style="list-style-type: none"> ♦ Knowledge of design and tools such as AutoCAD etc. ♦ Knowledge of green/eco-building design ♦ Project Management and People Management Skills ♦ Knowledge of appropriate safety practices ♦ Client Management skills (e.g. government officials for approvals, flat owners etc.)
	Supervisors: plumbing, electrical, carpentry, masonry, drilling	<ul style="list-style-type: none"> ♦ Skills in civil- operations of ready mix m/c, earth movers, etc. ♦ Basic repair and maintenance ♦ Exposure to right methodology in construction specific skills like lining, leveling etc. ♦ Site safety concepts and procedures ♦ Lack of finishing skills
	Workmen: plumbing, electrical works, carpentry, masonry, drilling	<ul style="list-style-type: none"> ♦ Basic operating skills related to relevant category ♦ Improved/ better quality in finishing ♦ Site safety concepts and procedures ♦ Ability to understand & follow instructions/ manuals

4.1.8 Recommendations

Future Growth Opportunities in Balod

In the context of the current economic profile and proposed investments of the district, the demand for human resources at various skill levels has been analyzed. The observations have been augmented by primary interactions with industry & industry association representatives in the district and government officials at the state and district level. Based on our analysis and considering factors like high growth and employment potential, priority sector for the state government, investment trends, etc., the following sectors/industries have been identified with future growth opportunities for employment and subsequently, skill development in Balod.

Table 48: Key Growth Sectors - Balod

#	Priority Sectors	Growth opportunities in skills development and employment
1	Agriculture	<ul style="list-style-type: none"> Agriculture is currently providing employment to around 78% of the workers in the district & is expected to grow at around 4% over the next decade (2012-22). Agriculture is anticipated to be the residual & largest incremental employer in the district accounting for around 40% of the total incremental demand for manpower. It is expected to provide employment to around 39,072 persons over the decade.
2	Mining & Quarrying	<ul style="list-style-type: none"> Mining & Quarrying is another major contributor in the district economy which contributed around 14% to the GDDP in 2013 and is expected to grow at around 12% (2012-22). The district is famous for Dalli Rajhara iron mines with deposits of dolomite and limestone also found in the district. The mineral revenue receipt from iron ore mining in the district in 2012-13 was Rs. 31597.7 lakhs. It is estimated to be the 2nd largest employer in the district with approximately 23% of the total incremental demand for manpower estimated to come from this sector providing thus good employment opportunities during 2012-22. It is expected to provide employment to around 21,914 persons over the decade.
3	Trade (Wholesale + Retail)	<ul style="list-style-type: none"> Trade (Wholesale+ Retail) is estimated to grow at around 6% in the period 2012-22. It is anticipated to be one of the largest employers of the district, contributing to about 6.0% of the total incremental employment in Balod. Presence of food processing/ agro based units and large scale mining and quarrying activities along with a surge in construction activities has enabled the trade of raw materials as well as finished products in the district resulting in increasing manpower demand in the sector.
4	Manufacturing - Food Processing	<ul style="list-style-type: none"> Food processing is projected to be the 4th largest employer in the district with approximately 5% of the total incremental demand for employment estimated to come from this sector over the period 2012-22. Agro-based industries will provide immense potential for growth in the district esp., in rice, sugar, molasses, spice etc.
5	Building & Construction	<ul style="list-style-type: none"> Construction is another major contributor in the district economy which has share of around 8% to the Industry sector contribution in 2013 and is expected to grow at 11.4% (2012-22). The total budgeted value for ongoing building and construction activities (building and roadwork) in Balod for the year 2013-14 is allocated at Rs. 106 crores. Building and construction is projected to be one of the major employers in the district with approximately 3.4% of the total incremental demand for employment estimated to come from the sector.

Source: Deloitte Analysis

Considering the economic and skill landscape of Balod, the table below indicates the priority areas of focus for key stakeholders involved. These observations have been mainly derived from the growth opportunities identified above and through primary interactions with industry and industry association representatives in the district along with inputs from the students, training institutes and government.

Table 49: Key Recommendations for Stakeholders - Balod

Stakeholder	Priority Areas
NSDC	<p>NSDC can focus the efforts of its training partners and prioritize it's funding in the following key sectors identified in the district, viz.</p> <ul style="list-style-type: none"> ♦ Agriculture ♦ Mining & Quarrying ♦ Trade (Wholesale + Retail) ♦ Manufacturing – Food Processing ♦ Building and Construction
Private training providers	<ul style="list-style-type: none"> ♦ There is a need for courses in mining & quarrying owing to the demand for more trained workers in the sector. Additionally, courses in Agriculture, Food Processing, trade (wholesale + retail) and building and construction can also be explored. ♦ The training institutes should introduce/ substantiate multi-disciplinary courses in sectors such as trade, food processing, building & construction etc. instead of focusing on single specialization. ♦ There is a need to strengthen the current placement tie-ups/linkages with industry as well as employment exchange as observed in the youth survey where around 67% of the youth expressed their dissatisfaction with the placement/ jobs available post training. ♦ In order to promote self-employment in the district, entrepreneurship development courses in the high growth sectors identified may be introduced.
Government	<ul style="list-style-type: none"> ♦ To encourage self-employment, the MSME-DI, Raipur should arrange multiple product-cum- process oriented programs in the district like Entrepreneurship Skill Development programmes (ESDPs), Entrepreneurship Development Programmes (EDPs), Industrial Motivation Camps (IMCs), BSDPs etc. for different groups of unemployed youth, people from weaker sections of the society, minorities, SCs & STs, technocrats, etc. with an objective of developing entrepreneurial qualities and preparing new entrepreneurs to setup their own small enterprises. ♦ Engage with industry players like Bhilai Steel Plant for undertaking courses in mining & quarrying for ensuring supply of sufficiently trained labour in the sector. ♦ Focus on training or providing extension support services in agricultural products processing, forestry and animal husbandry (including dairy & poultry) for the workers dependent on Agriculture.
Industry	<ul style="list-style-type: none"> ♦ More industry interactions could be initiated in the Mining & Quarrying, Trade, Food Processing, Building & Construction sectors in the district. ♦ Industry players should participate in improving upon the current course curriculum as observed in the youth survey where around 35% of the respondents quoted that the current education/training received by them is not in alignment with the potential job requirements.

4.2 Baloda Bazar

4.2.1 District Profile

Baloda Bazar district, located in the central part of Chhattisgarh was carved out of Raipur district on 1st Jan, 2012.

The district is a part of Raipur division in the north and falls under the fertile Chhattisgarh Plains agro climatic zone. It is bordered by Bilaspur, Mungeli and Janjgir-Champa district in North, Raigarh district in East, Bemetara district in West and Mahasamund district in South-East and Raipur district in South-West.

The district is divided into 6 tehsils for its administrative functioning viz. Baloda Bazar, Bhatapara, Bilaigarh, Kasdol, Palari and Simga. The district is divided into 3 subdivisions namely Baloda Bazar, Bhatapara and Bilaigarh. Baloda Bazar is the administrative headquarter of the district. Bilaigarh, Kasdol, Baloda Bazar and Bhatapara are the assembly constituencies in the district. The district has a total of 9 statutory towns, 2 Census Towns, 952 Villages (habitant and unhabitant), 2 Municipality and 7 Nagar Panchayats¹⁰⁴. Hindi and Chhattisgarhi are the local languages used in Baloda Bazar. The district was very famous for its cattle market in the region. The market still exists with name "Bhaisa Pasra".

Map 3: Baloda Bazar District



Table 50: Baloda Bazar District Profile

#	Indicator	Baloda Bazar	Chhattisgarh	% Share
1.	No. of sub-districts	6	149	4.0
2.	No. of villages	952	20126	4.7
3.	No. of households (lakhs)	2.80 ¹⁰⁵	56.51	5.0
4.	Average Land holding size (Ha)	1.40*	1.17	-
5.	Forest area cover	33.16% ¹⁰⁶	41.18%	-

Source: Census 2011, Directorate of Economics and Statistics- Govt of Chhattisgarh, State of Forest Report 2011-Forest survey of India; Deloitte Analysis; * * Data is for undivided Baloda Bazar (including Raipur & Gariaband))

¹⁰⁴ Census 2011

¹⁰⁵ Deloitte Analysis (Divided according to the population ratio of Raipur, Baloda Bazar & Gariaband)

¹⁰⁶ Data is for Dhamtari & undivided Raipur (including Baloda Bazaar & Gariaband)

4.2.2 Demography

As per Census 2011, Baloda Bazar has a total population of 13, 04,881 registering a 37.78%¹⁰⁷ population growth rate over the decade. Baloda Bazar is one amongst the highly populated districts of Chhattisgarh. The district shares approximately 5.1% of the state's population. As of 2011, Baloda Bazar ranks 7th amongst all the districts of Chhattisgarh in terms of population. About 87.3% of the total population resides in rural areas with just 12.7% of them being urban residents.

The population of Palari tehsil in Baloda Bazar has recorded the highest growth of 68.77% over the decade in Chhattisgarh¹⁰⁸. Baloda Bazar (67.59%), Simga (50.63%) and Bhatapara (45.03%) are amongst the other select tehsils in the state registering one of the highest total population growth rates. Baloda Bazar tehsil (65.69%) has registered the highest rural population growth rate in Chhattisgarh over the decade. Furthermore, Bhatapara (61.89%), Palari (61.61%) and Simga (49.52%) tehsils are also amongst one of the highest rural population (percentage) growth tehsils in the state. In terms of urban population growth rate over the decade, Bilaigarh (93.46%) and Baloda Bazar (78.13%) tehsils are amongst the select tehsils in Chhattisgarh witnessing a higher growth rate.

About 68.4% of the district's population is in the working age population group. The sex ratio of the district was impressive with around 1004 females per 1000 males.

Table 51: Demographic Indicators of Baloda Bazar

Demography	Baloda Bazar	Chhattisgarh
Population (2011)	13,04,881	2,55,40,196
Population 15-24 (2011)	2,73,172	49,89,339
Decadal Population Growth Rate (2001-11)	37.78% ¹⁰⁹	22.6%
Population density per sq. km (2011)	328*	189
Percentage of Urban Population (2011)	12.7%	23.2%
Percentage of SC population (2011)	17.8%*	12.8%
Percentage of ST population (2011)	11.7%*	30.6%
Average household size	4.66*	4.54
Sex Ratio (2011)	1004 ¹¹⁰	991
Working age population (15-59) as a percentage of total population, %	60.6%	60.1%
Per Capita Income (2009)	Rs.21884 ¹¹¹	Rs.28263
Source: Census of India 2011, Directorate of Economics and Statistics- Govt. of Chhattisgarh & Chhattisgarh, Deloitte Analysis		
* Data is for undivided Baloda Bazar (including Raipur & Gariaband)		

¹⁰⁷ Census 2011, Deloitte Analysis

¹⁰⁸ Census 2011

¹⁰⁹ Census 2011, Deloitte Analysis

¹¹⁰ *ibid.*

¹¹¹ Deloitte Analysis (At 2004-05 constant price)

Key Observations:

- ♦ Baloda Bazar district witnessed a high population growth rate over the decade. The population of Palari tehsil in Baloda Bazar has recorded the highest growth of 68.77% over the decade in Chhattisgarh. Moreover, Baloda Bazar tehsil (65.69%) has registered the highest rural population growth rate in Chhattisgarh over the decade.
- ♦ 3 (Palari, Baloda Bazar and Simga) out of the 6 tehsils of Baloda Bazar are amongst the top 10 tehsils in Chhattisgarh registering a high population growth rate over the decade.

4.2.3 Economic Profile

The economy of Baloda Bazar has registered a CAGR of 10.3% (estimated at constant price, 2004-05) between 2004-05 and 2008-09 and grown from Rs. 1,825.16 cr to Rs. 2,699.00 cr. The district recorded a higher economic growth rate compared to the state average (9.6%) over the period 2005-09.

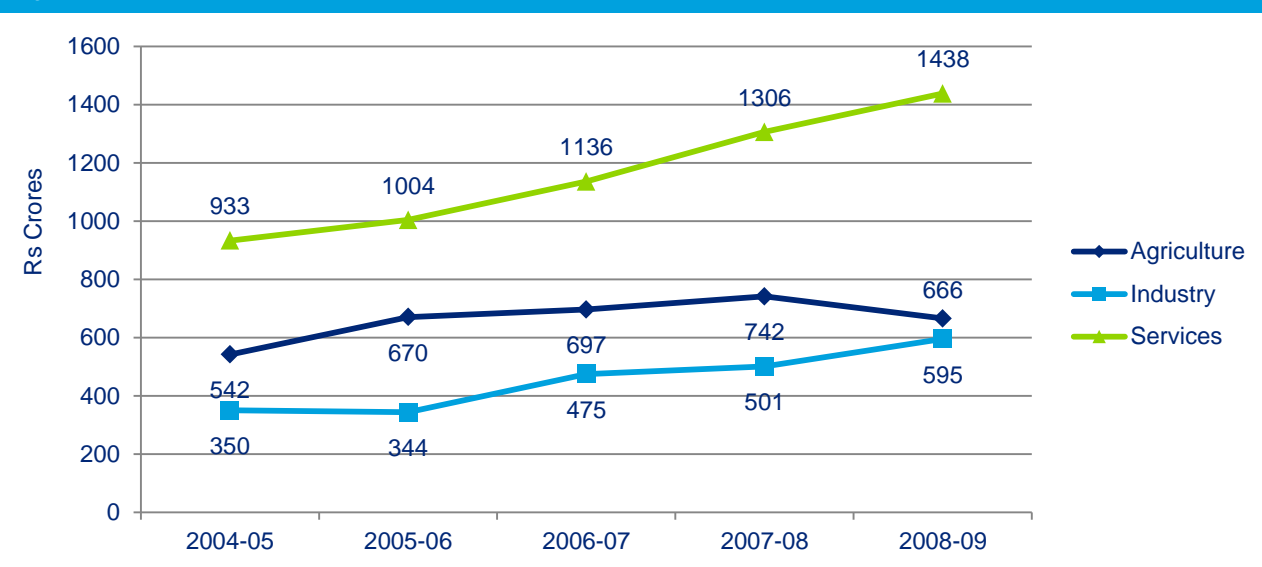
In 2008-09, Baloda Bazar district contributed 3.91% in the state economic activity¹¹². At Rs. 2,699.00 cr., Baloda Bazar ranked 7th in Chhattisgarh in terms of economic contribution amongst all the districts of Chhattisgarh.

The economy of Baloda Bazar district is pre-dominantly Services sector based with its share in GDDP at 53.3% in 2008-09. This is followed by Agriculture sector which contributes around 24.7% in the district economic profile and Industry sector contributing 22.0%.

In terms of sector level contribution to GDDP, the Agriculture sector's contribution has declined from 29.7% in 2004-05 to 24.7% in 2008-09. The Industry sector's contribution over the period increased from 19.2% to 22.0%. The contribution of Services sector in the district slightly declined over the same time periods from 51.1% to 53.3%. However, the absolute contribution of Services sector increased consistently in the district.

The sector-wise GDDP growth and distribution from 2005-09 is provided below:

Figure 60: Sectoral Share of GDDP, 2004-05 to 2008-09, Baloda Bazar



Source: Directorate of Economics and Statistics, Govt. of Chhattisgarh, 2004-05 base prices

¹¹² Deloitte Analysis

Agriculture sector

The contribution of Agriculture sector (agriculture, forestry & logging and fishing) to the GDDP was 24.7% in 2008-09. The sector grew at a CAGR of 5.3% between 2004-05 & 2008-09. The overall contribution of the sector in the district economic profile decreased from 29.7% in 2004-05 to 24.7% in 2008-09.

Agriculture is the chief contributor in the total output of the Agriculture sector in the district contributing around 68.3% in the year 2008-09 followed by forestry & logging (26.9%) and fishing (4.9%).

Agriculture is the chief occupation of people in Baloda Bazar. The total area under cultivation in the district is 2.70 lakh hectares¹¹³. Paddy is the principle crop grown in the district. Wheat, groundnut and maize are the other important crops grown in Baloda Bazar. Presence of rivers like Mahanadi, Shivrath etc. in the district facilitates agricultural production. The district has 4 agricultural produce Mandis out of which Bhatapara Mandi is famous for year round exchange of agricultural produce.

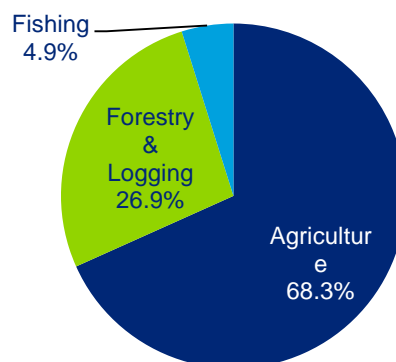
Forestry and logging activities is the 2nd most important subsector within the Agriculture sector in terms of economic activity. Baloda Bazar falls under the Raipur forest circle and the important non nationalized species available in the district are Palash, Mahulpatta, Mahua, Baheda and Dhawai.

Industry sector

The Industry sector (mining & quarrying, manufacturing, construction and electricity, gas & water supply) contributed 22.0% to the GDDP in 2008-09. The sector grew at a CAGR of 14.2% over the period 2004-05 & 2008-09. The overall contribution of the sector in the district economic profile increased from 19.2% in 2004-05 to 22.0% in 2008-09.

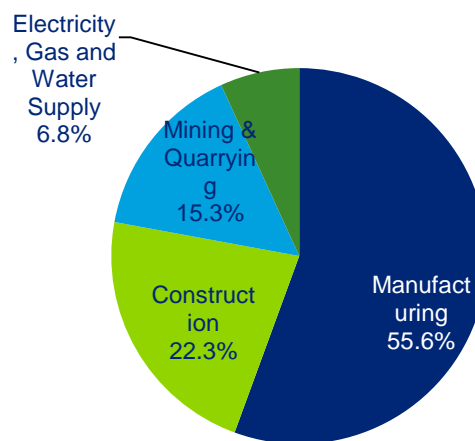
Manufacturing sector is the major contributor within the Industry sector accounting for a sectoral share of 55.6% followed by construction (22.3%), mining & quarrying (15.3%) and electricity, gas & water supply (6.8%).

Figure 61: Sub-sectoral break-up of Agriculture sector (2008-09), Baloda Bazar



Source: Directorate of Economics and Statistics- Govt. of Chhattisgarh, Deloitte Analysis

Figure 62: Sub-sectoral break-up of Industry sector (2008-09), Baloda Bazar



Source: Directorate of Economics and Statistics, Govt. of Chhattisgarh

¹¹³ <http://balodabazaar.org/contents/city-profile.php>

Baloda Bazar is famous for its cement plants. It hosts world class cement factories in the vicinity like Ultratech Cement, Ambuja Cement, L&T Cement, Lafarge Cement, Grasim Cement, Shree Cement and Emami Cement. Baloda Bazar and Bhatapara have a large number of rice mills, poha mills and dal mills which produce export quality rice. Furthermore, tehsils like Bilaigarh, Kasdol and Simga are known for handloom production where weavers are engaged in production of clothes and dress materials.

Construction is one of the major sub segments in the Industry sector with the total budgeted value for ongoing building and construction activities (building and roadwork) in Baloda Bazar for the year 2013-14 allocated at Rs. 96 crores¹¹⁴.

In terms of availability of minerals, limestone is found in abundance in the district. Simga and Baloda Bazar tehsils have major occurrence of Limestone. Incidences of gold have also been reported at the Kasdol tehsil of Baloda Bazar. The total mineral revenue receipt from mining of minerals in the district in 2012-13 was Rs. 9251.19 lakhs (Major Mineral: Rs. 8598.43 Lakhs, Minor minerals: Rs. 638.06 lakhs and others: Rs. 14.70 lakhs)¹¹⁵.

Services sector

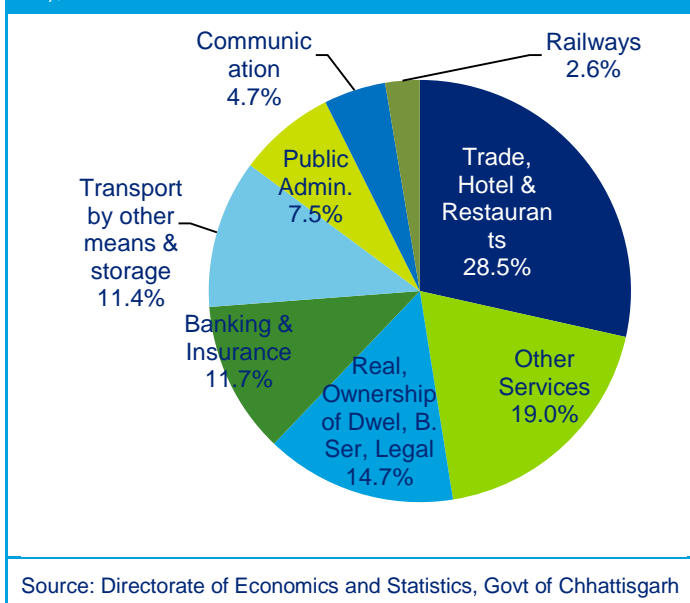
The Services sector was the major contributor to the district economy in 2008-09 with a share of around 53.53% to the GDDP. The sector grew at a CAGR of 11.4% between the period 2004-05 & 2008-09.

Trade, Hotels & Restaurants was the chief contributor of the Services sector in Baloda Bazar contributing approximately 28.5% to the district Services sector. Other Services (19.0%), Real Estate (14.6%), Banking and Insurance (11.7%) and Transport by other means & storage (11.4%) are the other major contributors to the services profile of the district in 2009.

The chief tourist attractions in Baloda Bazar district are Lord Shiva Temple (located near Bus Stand), Mawli Mata Mandir, Hanuman Mandir, Balmiki Ashram (Turturiya), Cattle Market and Purani Basti. Purani Basti or the area adjoining the Mawli Mata Mandir is the oldest area of the town.

The district headquarter is located at a distance of 60 kms. from Bilaspur and 84 kms from Raipur. Roads are the major mode for commuting within the district. The nearest airport for Baloda Bazar is the Raipur airport and the nearest railway station is the Bhatapara railway station situated on the Mumbai-Howrah main line. Bilaspur Junction Railway Station is also an important railway station near Baloda Bazar.

Figure 63: Sub-sectoral break-up of Services sector (2008-09), Baloda Bazar



¹¹⁴ Chhattisgarh Public Works Department

¹¹⁵ Directorate of Geology & Mining, Chhattisgarh

Key Observations:

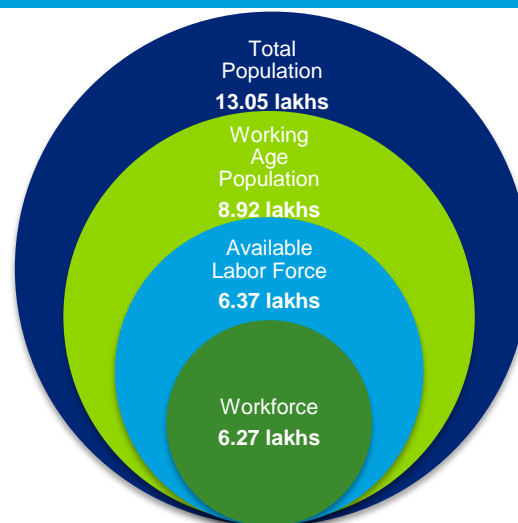
- ♦ The economy of Baloda Bazar district is pre-dominantly Services sector based with the sectoral share in GDDP being 53.53% in 2008-09.
- ♦ In 2009, agriculture occupied the highest share in district economy at 17% followed by trade, hotels and restaurants (15%) and manufacturing (12%). These sectors together accounted for around 44% of the total economic activity of Baloda Bazar in 2009.

4.2.4 Employment Profile

With a total population of 13.05 lakhs in the year 2011, Baloda Bazar accounts for nearly 5.1% of the state's population.

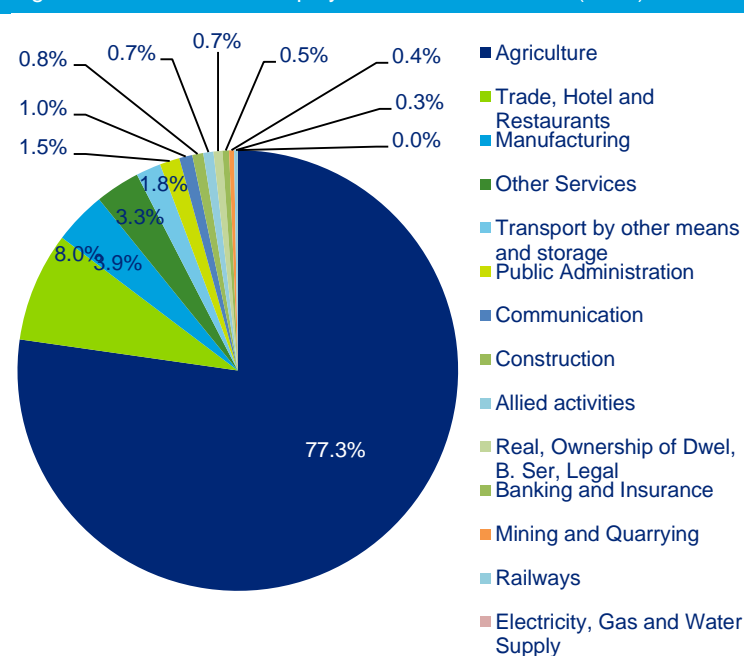
The adjacent figure depicts the estimated workforce in Baloda Bazar in the context of total population of the district. Out of the total population of 13.05 lakhs in the district, the working age population (between 15-59 age group) is estimated at around 8.92 lakhs or nearly 68.4%. Based on the labor force participation rate and the worker participation rate estimates for the state, the available labor force is estimated to be 6.37 lakhs, and the workforce is estimated at 6.27 lakhs or nearly 70% of the working age population.

Figure 64: Total Workforce in Baloda Bazar (2011)



Source: Census 2011 and Deloitte Analysis

Figure 65: Sector wise employment in Baloda Bazar (2011)



Source: Census 2011 and Deloitte Analysis

Agriculture sector was the highest employer in the district in 2011 employing around 78% of the total available workforce with the sectoral contribution in the district economic profile during the same period was 22.5% of the Gross District Domestic Product.

The Services sector contributed around 54.5% to the GDDP in the year 2011 and employed 17.0% of the total available workforce. Services sector was the 2nd highest employer in the district in 2011 while in terms of economic activity it was the chief contributor to the GDDP.

The remaining workforce was employed by the Industry sector which contributed around 22.9% to the GDDP in 2011 assuming thus the

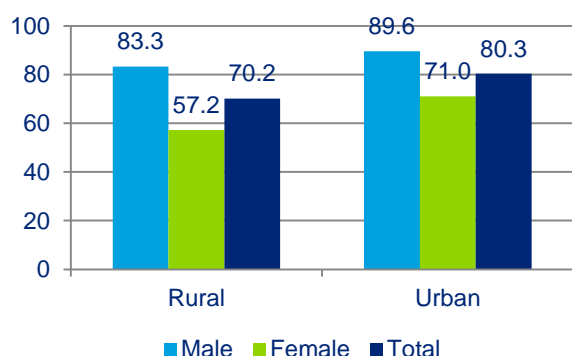
3rd position in Baloda Bazar in terms of employment share.

The adjoining figure summarizes the sector-wise employment share in Baloda Bazar for the year 2011. Agriculture accounted for around 77.3% of the total employment in the district followed by trade, hotels and restaurants (8.0%), manufacturing (3.9%), other services (3.3%) and transport by other means and storage (1.8%). The top five sectors in the district in terms of employment account for around 94% of the total employment of the available workforce in Baloda Bazar in 2011.

4.2.5 Education Infrastructure

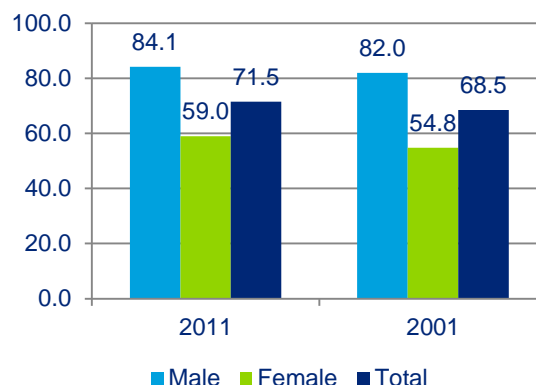
The literacy rate in Baloda Bazar has improved over the decade from 68.5%¹¹⁶ in 2001 to 71.5% in 2011. The literacy rate of the district is comparable to the state's literacy rate of 70.3% in 2011, but is lower to the all-India literacy rate of 73%. In 2011¹¹⁷, male and female literacy rates stood at 84.1% and 59.0% respectively, both figures showing improvement compared to the 2001¹¹⁸ figures of 82% & 55% respectively. However, there exists significant disparity between male-female & urban-rural literacy rates.

Figure 67: Literacy rate 2011 (by residence), Baloda Bazar



Source: Census of India 2011

Figure 66: Literacy rate (by Gender), Baloda Bazar



Source: Census of India, 2001 and 2011

School Education

Baloda Bazar has 1323 primary schools, 747 upper primary schools, 117 secondary schools and 159 higher secondary schools. Net enrolment ratio (NER) at the upper primary level (74.1%) is higher than the state NER of 67.8%.

Table 52: Status of school education infrastructure in Baloda Bazar, 2013

#	Educational Statistics	Units in Baloda Bazar	Units in Chhattisgarh	% Share of District in State
1	Primary School	1323	35588	3.7%
2	Upper Primary School	747	16442	4.5%
3	Secondary School	117	2632	4.4%
4	Higher Secondary School	159	3548	4.5%
5	NER (Primary) (2010-11)	100%	98.0% ¹¹⁹	-
6	NER (Upper Primary) (2010-11)	74.1% ¹²⁰	67.8%	-

Source: DISE 2012-13

¹¹⁶ Data is for undivided Baloda Bazar (including Raipur & Gariaband)

¹¹⁷ Census 2011, Deloitte Analysis

¹¹⁸ Data is for undivided Baloda Bazar (including Raipur & Gariaband)

¹¹⁹ Data is for 2008-09

¹²⁰ Data is for undivided Baloda Bazar (including Raipur & Gariaband)

Vocational Education

For vocational training, Baloda Bazar has a total of 5 ITI's in the district, all of which are Government Industrial Training Institutes. Baloda Bazar does not have any woman ITI. The total capacity of the ITI's in the district is 992. The number of courses available in ITIs and their capacity are listed in the table below:

Table 53: ITIs in Baloda Bazar and their capacity

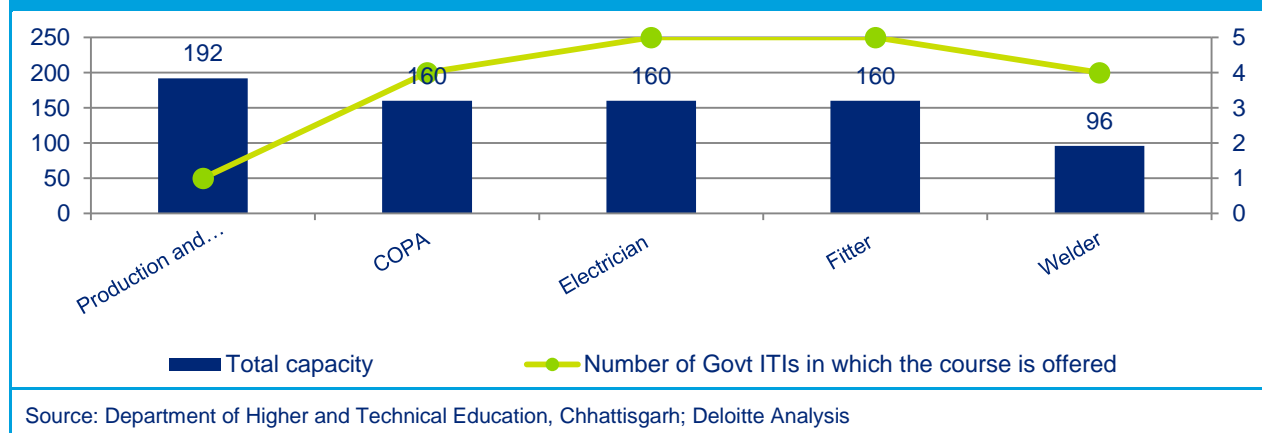
Name of ITI	Number of courses offered	Total Units affiliated	Total Capacity
Industrial Training Institute, Baloda Bazar	9	25	400
Industrial Training Institute, Kasdol	8	13	200
Industrial Training Institute, Bhatapara	5	9	144
Industrial Training Institute, Hathband	3	6	104
Industrial Training Institute, Bhatgaon	5	9	144
Total	14*	62	992

Source: Department of Higher and Technical Education, Chhattisgarh; Deloitte Analysis

*Total number of different courses offered by ITI's in Baloda Bazar

The major courses offered in the ITIs and their capacity in Baloda Bazar is given in the figure below:

Figure 68: Major courses offered in Govt. ITIs and their capacity in Baloda Bazar



According to Chhattisgarh State Skill Development Mission Website, as of 12th March, 2014, Baloda Bazar has 25 Vocational Training Providers (VTPs) under which there are 743 registered beneficiaries. The following table highlights the courses offered in vocational education, which currently meet requirements of about 15 sectors.

Table 54: Courses offered in vocational education, Baloda Bazar

Sector	ITI trades and Units affiliated	Courses Offered by VTPs
Auto and auto components Electronics and IT hardware Chemicals and pharmaceuticals	Electrician(10), Fitter(10), Mechanic (2), Production & Manufacturing (12), Welder(8),	Electrical, Fabrication, Automotive Repairs, Industrial Electrical, Production and manufacturing
IT and ITES Tourism, hospitality and travel Organized retail Media and entertainment Banking, financial services and insurance	Computer Operator and Programming Assistant(8), Stenography(1), Driver cum mechanic (2)	ICT, Soft skill, Banking & Accounting, Insurance, Business & Commerce, Hospitality, Media sector, Retail

Textiles and clothing	Cutting and Tailoring(1)	Textile sector, Garment making
Infrastructure (Transport, Energy, Water & Sanitation, Communication, Social & Commercial)	Carpenter(2), Draughtsman(Civil)(2), Mason(Building constructor) (2), Surveyor(2)	Construction, Rain water Harvesting, Renewable Energy
Building, construction and real estate		
Construction material & building hardware		
Furniture and furnishing		
Unorganized sector (particular reference to agriculture, security, plumbing, domestic worker, foundry, etc.)		Agriculture, Wood Work
Source: CSSDA Website		

The following table highlights the NSDC partners present in Baloda Bazar as of January 2014 and the courses offered by them.

Table 55: NSDC partners present in Baloda Bazar

Name of Partner	Sectors in which course is offered	Courses offered
AISECT	IT/Software	<ul style="list-style-type: none"> ♦ Diploma in Computer Applications ♦ Post Graduate Diploma in Computer Applications ♦ Diploma in Computer Programming and Applications ♦ Diploma in Computer Education ♦ Certificate in Data Entry Operator ♦ Certificate in Office Automation and Internet)
	ITES-BPO	<ul style="list-style-type: none"> ♦ Diploma in Computer Applications ♦ Post Graduate Diploma in Computer Applications ♦ Diploma in Computer Programming and Applications ♦ Certificate in Computer Applications
Source: NSDC		

Higher Education

The status of higher education in Baloda Bazar is not very promising. Out of a total 590 colleges in the state, only 9 colleges are in the district of Baloda Bazar indicating the district's share in the higher education space of the state at just 1.5%. This is lower in comparison to the share of population of Baloda Bazar to the state (5.1%). Out of the 9 colleges present in the district, 8 offer just general degree courses. There are no technical, management or medical colleges in the district.

Table 56: Number and Capacity of Higher Education infrastructure in Baloda Bazar

#	Colleges	Number	Estimated Capacity*
1	Arts, Science and Commerce	8	-
2	Agriculture	1	48
	TOTAL	9	-
*Source: University/College websites			

Key Observations:

- ♦ The share of Baloda Bazar in the higher education space of the state is just 1.5% which is lower in comparison to the share of population of Baloda Bazar to the state (5.1%).

4.2.6 Youth Aspirations

Youth population constitutes the most important demographic section for a district from a skills development perspective. In the process of capturing the aspirations of the youth population in Baloda Bazar, focused group discussions were held with youth from educational institutions as well as residing in rural areas to understand their concerns, areas of interest and future dreams and goals. The youth survey in Baloda Bazar was conducted at the AISECT, Computer Prashikshan Kendra; Industrial Training Institute Sakari; Balaji Private ITI, Bhatapara and Target computer Institute. The FGD in Baloda Bazar was conducted at the Anganwadi centre, Bhatapara. 61% of the respondents were in the age group 15-20 while 33% of them were between 21-25 years. Remaining 6% of the respondents were 26 years and above. In terms of gender representation, around 80% of the participants were males while the remaining 20% were females. The educational qualification of about 60% of the participants was certificate/diploma level. Around 28% of them were high-school level or below with the remaining 12% participants being graduates & above.

The key observations about aspirations of the youth of the district are highlighted below.

Table 57: Youth Aspiration – Key Responses – Baloda Bazar

Parameters	Responses
Job Preference	Most of the youth preferred Government jobs over private jobs due to the job security offered in a Government job however, the majority of the youth works with private players in the district.
Factors influencing selection of training institution	Institutions are selected on the basis of employment opportunities available post training, proximity to home and the quality of the training institute.
Preferred Course	<ul style="list-style-type: none"> Boys expressed interest in trades like Electrician, Fitter and Welder while girls indicated preference for courses in Textiles & garments, Beautician and Office Assistant. Training for job readiness appears to be the most popular amongst the youth in the district. Bridge courses like spoken English, basic communication skills, personality development, soft skills & basic IT skills are considered to be very important by the youth.
Migrating for job	Most of the youth (70%) prefer jobs within the district . Around 87% of the youth surveyed prefer to migrate within the state in search of better employment opportunities.
Salary Expectations	Average monthly salary expectation of youth ranges between Rs 10,000 –20,000/-
Areas of concern/ aspirations- Infrastructure	<p>Following views were expressed regarding infrastructure in educational institutions:</p> <ul style="list-style-type: none"> Youth reported poor quality of infrastructure in the institutes in terms of books in the library, building, laboratories etc. Youth highlighted the unavailability of playground/sports facility in the institute.
Areas of concern/ aspirations-Course Curriculum	<ul style="list-style-type: none"> Youths expressed that admission process should be modified, need for counseling before admission was emphasized. Youth highlighted the inclusion of soft skills and other developmental programmes in the current course structure. Rural youth expect free computer training, free coaching for competitive examination and training camps within the district. Local industries should train people on apprenticeship/ intern model to improve job prospects.
Other concern	<ul style="list-style-type: none"> It was also learnt that youth are not aware about the newly introduced Govt. initiatives on skill development such as VTPs (MES/ SDI scheme) and NSDC training partners. There are negligible tie ups between industries and institutions in the district.

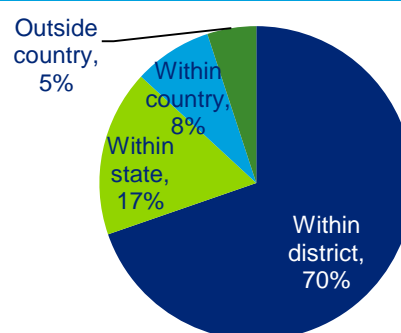
Parameters	Responses
Suggestions given by youth	<ul style="list-style-type: none"> The youth expect Govt. to take up initiatives to improve college infrastructure. Youth expressed that Govt. should take measures to improve education at primary level so as to make students more competent in higher classes. Youth requested that minimum course fee should be charged from BPL students. Certificates issued after course completion should be valid nationally. There should be more courses, practical classes, resourceful, efficient and regular teachers available in the institutes. Youth expect the industries to give more preference to the locals for jobs.

A sample survey was conducted with youth at gram panchayat level & those coming out from various educational institutions (Government & private) to understand & capture their aspirations. The findings are presented below.

Job preference by youth

The majority of the youth surveyed (70%) **prefer to get a job within their home district** as is evident from the adjacent figure. Approximately 17% of them preferred employment opportunities within their state of residence. The survey highlights the fact that around **87% of the youth surveyed wanted to get a job within Chhattisgarh** thus demanding and necessitating the creation of suitable positions and absorption capacity for them in the employment market. The survey reveals that not many youth are interested to migrate out of the state in search of jobs.

Figure 69: Job Preference by Youth

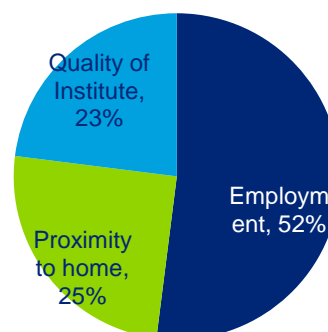


Source: Deloitte Analysis

Parameter for Institute Selection

A majority of the students surveyed (52%) in the district choose institute for higher education on the basis of better employment/job prospects post education. Around 25% of the students surveyed (especially women) quoted the **proximity of the educational institution** as their prime parameter while selection of an institute for higher education. Remaining 23% of the students surveyed make their choice on the basis of the quality of education offered by the institute and its reputation while selecting an institute for higher education.

Figure 70: Parameter for Choice of Institute



Source: Deloitte Analysis

Youth Perception Mapping

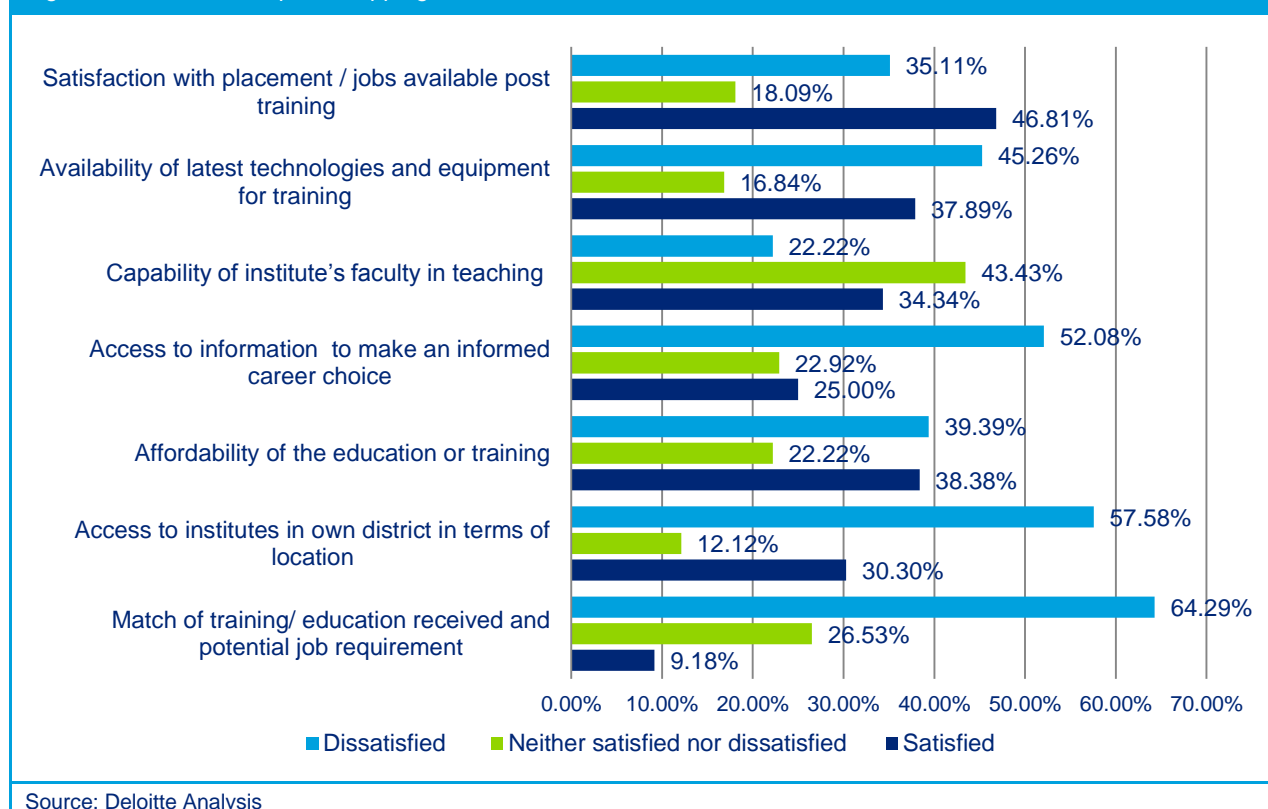
Youth perception mapping was undertaken to understand their level of satisfaction with either their current institute or their experience and feedback on the available educational infrastructure. The results are summarized below:

Satisfaction with placement / jobs available post training: Around 47% of the students surveyed expressed their satisfaction with the placement opportunities available in the institute or jobs available post training. While around 35% of them felt the job opportunities available to them post training were not satisfactory. The proximity of Baloda Bazar to the more industrialized districts of Chhattisgarh like Raipur, Bilaspur, Raigarh and Janjgir-Champa helps in providing appropriate employment opportunities to the youth.

Non-availability of latest technologies and equipment for training: 45% of the students surveyed expressed their dissatisfaction with the availability of latest technology & equipment for training in the institute while around 38% shared their satisfaction with the same. They expressed the lack the sufficient number of computers in the institute as per the students enrolled. They also suggested that the current computers in the institutes should be installed with the latest software like DTP, .NET for better future prospects.

Satisfaction with capability of institute's faculty in teaching: Around 34% of the students surveyed expressed their satisfaction with the current faculty in their institutes. Around 22% of the respondents feel the **quality of teaching by faculty** is not satisfactory and needs significant improvement. They suggested inviting guest lecturers/visiting faculty from industry for providing inputs on the latest trend in the sector.

Figure 71: Youth Perception Mapping, Baloda Bazar



Need for better access to information to make an informed career choice: Around 52% of the students surveyed were dissatisfied with their access to information to make an informed career choice. The concern was raised more by the rural youth who reported the **absence of appropriate facility/linkages and thought leaders in their locality to get suggestions and guidance on career.**

They highlighted the need and importance of having career counseling to the potential students either at the school level or at the respective vocational institutes.

Affordability not as high a concern as quality and value for money in education or training: The students were almost equally opined in case of the affordability of education or training available in the district. While 39% of the students surveyed felt that the fees charged by the educational/ training institute was on a higher end, around an equal percentage of students (38%) feel that the fees charged by educational institutions is not a barrier for them. However, the majority of the students surveyed raised their concern regarding the quality of the training programme offered and highlighted that the same should be commensurate with the fees charged.

Access to institutes is an issue in rural areas: Around 58% students surveyed felt their educational institutes to be inaccessible in terms of location and majority of them were rural youth. 30% of the students surveyed expressed their **satisfaction with the accessibility** of the educational institutes in terms of location. They found the institute to be located in an accessible area and safe in terms of the duration of classes. The rural youth voiced the government to support them by arranging suitable transport facility.

Dissatisfaction with the alignment of training/education received with job requirements: Approximately 64% of the students surveyed emphasized that there is a need to align the training/education provided by the educational institutes in the district in terms of job requirements of the business.

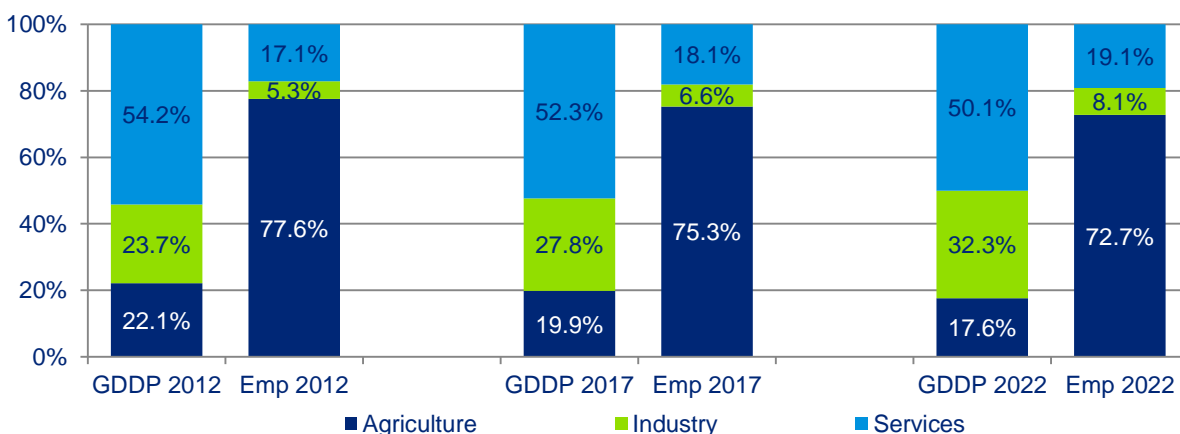
Key Observations:

- ◆ Most of the youth preferred Government jobs over private jobs due to the job security offered in a Government job however, the majority of the youth works with private players in the district.
- ◆ Institutions are selected by the youth primarily on the basis of employment opportunities available post training, proximity to home and the quality of the training institute.
- ◆ Average monthly salary expectation of youth ranges between Rs 10,000 –20,000.
- ◆ It was learnt that youth are not aware about the newly introduced Govt. initiatives on skill development such as VTPs (MES/ SDI scheme) and NSDC training partners.
- ◆ Youth expressed that Govt. should take sufficient measures to improve education at primary level so as to make students more competent in higher classes.
- ◆ Youth requested that minimum course fee should be charged from BPL students.
- ◆ Youth highlighted that the certificates issued after course completion should be valid nationally.

4.2.7 Skill Gap Assessment

The working age population (15-59) constituting 60.6% of total district population in 2011, is expected to increase to 64.3% by 2022 indicating thus an increase in the demand for jobs in the district. Moreover, the capacity of the educational institutions must be sufficiently increased and adequately equipped in order to ensure supply of amply skilled labor.

Figure 72: Comparison of Sectoral share in GDDP & Employment, Baloda Bazar



Source: Deloitte Analysis

Based on our analysis and primary interactions, the Agriculture sector is expected to play a significant role and will continue to be an important sector in terms of providing employment in the district. It currently accounts for the largest share of workforce and is anticipated to be the major employer in the district over the next decade. If the trends in employment continue, in 2021-22, the share of employment across the Agriculture sector is expected to decline to 72.7% as compared to 77.6% in 2012.

The Industry and Services sector employment share are estimated to increase to 8.1% and 19.1% respectively, as indicated in the table above. This trend appears to be in line with the national trend as well where people are moving out of the Agriculture sector and moving into the Industry and Services sectors respectively.

The above figure also depicts the significant disparity in the structures of economy and employment in the district. It shows that the Agriculture sector employs the largest share of workers. However, its relative contribution to the economic output is the least. This phenomenon is typical of the economy-employment structures in most districts and states in India. It indicates the significant challenge in moving towards alignment of the employment with the economic output.

Incremental Human Resource Demand

As per the methodology, the total incremental demand for manpower in Baloda Bazar from 2012 to 2022 is expected to be around 1.41 lakh. Following table provides the break-up of the incremental demand for manpower in Baloda Bazar as per the skill levels required.

Table 58: Estimated Incremental Human Resource Demand ('00) by Skill Level in Baloda Bazar

	2012-17	2017-22	Total
Skilled	90	106	195
Semi-Skilled	169	193	362
Minimally Skilled	419	429	848
Total	677	728	1,405
Source: Deloitte Analysis			

Some of the key trends observed on the demand side include

- ♦ *Agriculture is anticipated to be the largest incremental demand generating sector (51.0%) in the district. It is the chief occupation of people in Baloda Bazar with the total area under cultivation in the district currently at 2.70 lakh hectares¹²¹. While paddy is the principle crop grown in the district, wheat, groundnut and maize are the other important crops grown in Baloda Bazar. Presence of rivers like Mahanadi, Shivrath etc. in the district further facilitates agricultural production.*
- ♦ *Manufacturing (mineral/metal based) is likely to be the second largest incremental demand generating sector (7.5%) with demand largely in the semi-skilled level. Baloda Bazar is famous for its cement plants. It hosts world class cement factories in the vicinity like Ultratech Cement, Ambuja Cement, L&T Cement, Lafarge Cement, Grasim Cement, Shree Cement and Emami Cement.*
- ♦ *Within the industry sector, the other key growth sectors in Baloda Bazar in terms of incremental demand for manpower include Mining and Quarrying (4.0%) and Building and Construction (4.0%).*
- ♦ *In the services sector, trade - retail + wholesale (6.6%) is expected to be one of the major employers in Baloda Bazar.*
- ♦ *Analysis of formal and informal employment indicates that the incremental demand for manpower in formal sector would come mainly from BFSI, Mining & Quarrying, Public Administration, Building and Construction and Trade (Retail + Wholesale).*
- ♦ *Majority of demand for incremental manpower in the informal sector is projected to come from Agriculture, Manufacturing (mineral/metal based), Trade (Retail + Wholesale) and transportation and logistics/warehousing.*

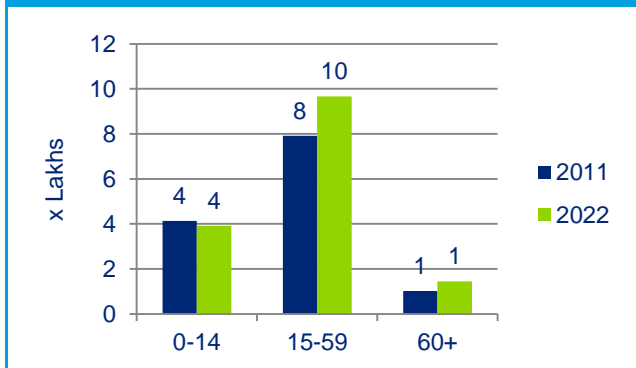
¹²¹ <http://balodabazaar.org/contents/city-profile.php>

Table 59: Incremental Human Resource Demand ('00) by Skill Level in Baloda Bazar- Key Sectors

#	Key Sectors	2012-17				2017-22			
		Skilled	Semi-skilled	Minimally Skilled	Total	Skilled	Semi-skilled	Minimally Skilled	Total
1	Agriculture	11	36	317	364	11	35	307	353
2	Manufacturing (Mineral/ metal based)	10	29	10	48	11	34	11	57
3	Trade (Retail + Wholesale)	7	23	16	47	7	23	16	46
4	Mining & Quarrying	2	6	13	21	3	10	21	35
5	Building & Construction	4	10	11	24	5	13	14	31
6	Others	56	64	52	173	68	78	60	206
7	Total	90	169	419	677	106	193	429	728
Overall Incremental Demand					1,405				
Source: Deloitte Analysis									

Incremental Human Resource Supply

Figure 73: Age wise distribution of population, Baloda Bazar 2011 and 2022 (projected)



Source: Census 2011 and Deloitte Analysis

The population of Baloda Bazar is expected to increase from 13.05 lakhs in 2011 to 15.03 lakhs in 2022.

The adjacent figure provides the current and projected population across various age groups. As per the analysis, the number of persons in the working age group is expected to increase by around 22% during the period 2011-22. The proportion of children in the 0-14 age group is expected to decrease by 5% during the same time period. This represents a potential demographic dividend for the district with a large increase in the employable population. On the other hand, it presents a huge challenge for the state to make

available higher education and skill development facilities as well as ensure productive employment opportunities for its working age population.

As per the methodology, the estimated incremental manpower supply in Baloda Bazar over a period of 10 years (2012-22) will be around 1.75 lakh. Incremental manpower supply can be further classified into skilled, semi-skilled and minimally-skilled as per the education qualifications and estimated output of educational and vocational training institutes in the district.

Table 60: Estimated Incremental Human Resource Supply ('00) by Skill Level in Baloda Bazar

	2012-17	2017-22	Total (2012-22)
Skilled	48	50	98
Semi-Skilled	278	297	575
Minimally Skilled	545	533	1,078
Total	871	880	1,751

Source: Deloitte Analysis

Some of the key trends observed on the supply side include

- Proportion of incremental supply of minimally skilled manpower is 61.5%, compared to 32.8% of semi-skilled and 5.6% of skilled manpower (2012-22).
- Baloda Bazar has only 9 out of 590 colleges in the state indicating the district's share in the higher education space of the state at just 1.5%. This is much lower than the corresponding share of population of Baloda Bazar in the state (5.1%). This also reflects in the proportion of skilled workforce in the district which is anticipated to be the least (6%) and likely to remain constant over the decade.
- The supply of semi-skilled workforce in the district is estimated to increase over the two time periods which are in-line with the current focus of government in improving the skill development space of the state.
- The proportion of minimally skilled workers in the workforce is estimated to decrease from 63% over 2012-17 to 61% over 2017-22. From a skilling perspective, this is an important target segment for training so that they can positively contribute to the economy.
- Impact of Migration is expected to be inward from other states and districts primarily across minimally skilled category and accounts for around 1.7% of the total supply in the district.

Incremental Demand Supply Gap

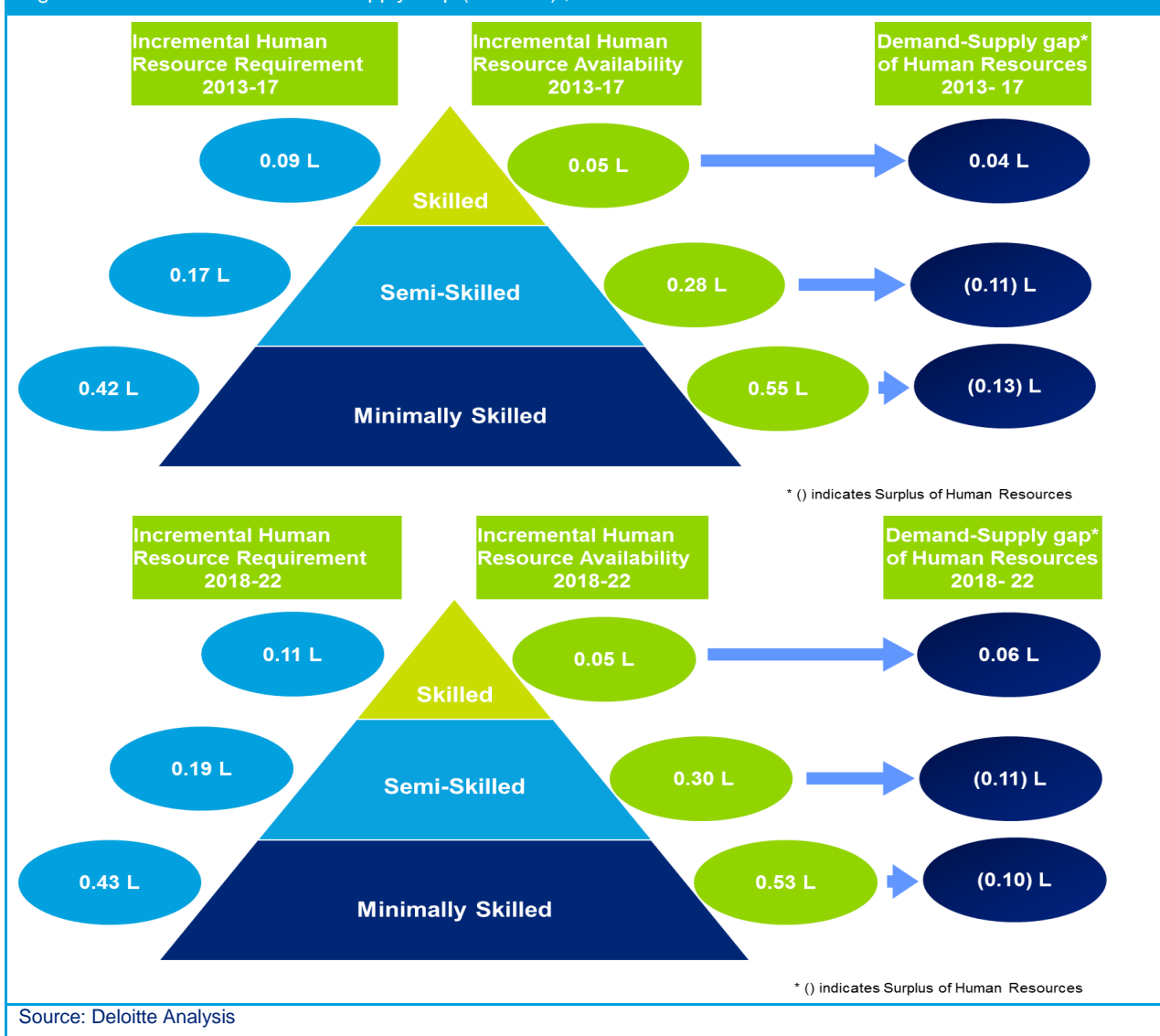
During the period 2012-22, the incremental human resource demand in Baloda Bazar across all skill levels is estimated to be 1.41 lakh while the supply is projected to be 1.75 lakh indicating thus a surplus of around 0.35 lakh people (refer table below). There is estimated to be an excess demand across the skilled segment with a surplus supply anticipated in the semi-skilled and minimally skilled segments.

Table 61: Projected Demand Supply gap ('00) by skill levels in Baloda Bazar

#	District Skill Gap	2012-17				2017-22			
		Skilled	Semi-skilled	Min. Skilled	Total	Skilled	Semi-skilled	Min. Skilled	Total
1	Incremental HR Requirement (Demand)	90	169	419	677	106	193	429	728
2	Incremental HR Availability(Supply)	48	278	545	871	50	297	533	880
3	Demand-Supply Gap	41	(109)	(127)	(194)	55	(104)	(103)	(152)
	Overall Demand-Supply Gap				(346)				
Source: Deloitte Analysis									

During the period 2012-22, the incremental manpower demand supply gap of the district (across all sectors mentioned above) is expected to be a surplus of about 0.35 lakh people with the excess demand across the skilled segment and an excess supply across the semi-skilled and minimally skilled segments as shown in the following figure.

Figure 74: Incremental Demand-Supply Gap (in Lakhs) , Baloda Bazar



Source: Deloitte Analysis

Some of the key trends observed on the demand-supply gap of the human resource include

- ♦ The composition of the human resource demand supply gap over the two different time periods i.e. 2012-17 and 2017-22 is expected to remain same.
- ♦ In line with the rural-urban population distribution in the district (87% of the population residing in rural areas) and dominance of agriculture in employment in the district, the major contributor to the incremental manpower supply is the minimally skilled segment which is in excess in the district and requires appropriate skilling and training programs to shift to the more productive employment opportunities assumed at the semi-skilled and skilled segments. This may also result in some intra

state migration of the surplus supply of minimally skilled workers in Baloda Bazar to the neighboring districts like Raipur and Durg where there is anticipated to be a shortage of minimally skilled workers.

- ♦ *The excess demand of skilled resources in the district is expected to continue over the decade. This is in line with presence of few higher education institutes in the district.*
- ♦ *Even in the case of existing supply of workers in the skilled segment, it is pertinent to note that it does not imply industry demand for skills is being sufficiently met. Approximately 87% of the total skilled workforce is estimated to be from general degree courses having undergone no job/skill specific training. Moreover, the industry interactions have revealed employability linked skills as a key area of concern. The changing landscape of the sector including use of new technology and practices imply a need for reskilling and up skilling of the existing workers.*

Qualitative Skill Gaps

The qualitative skill gaps that were highlighted during our primary interactions with industry at Baloda Bazar are provided in the table below.

Table 62: Qualitative Skill Gaps

Sector	Level	Skill Gap
Agriculture	Tractor operator and mechanics/ Electricians/ Mechanics for repair & maintenance of agricultural tools & implements	<ul style="list-style-type: none"> ♦ Sufficient training to address tool & equipment failures like motor pump failure, gear damage, tyre puncture etc.
Manufacturing (mineral/metal based)	Manager/Engineer	<ul style="list-style-type: none"> ♦ Project Management and People Management Skills ♦ Knowledge of appropriate safety practices ♦ Communication skills (Writing Skills)
	Supervisors	<ul style="list-style-type: none"> ♦ Interpersonal and communication skills ♦ Understanding of quality concepts ♦ Understanding of product specifications ♦ Knowledge and implementation of safety practices ♦ Improve efficiency by avoiding wastage of resources
	Workmen/operators	<ul style="list-style-type: none"> ♦ Understanding of discipline, industrial rules, work related procedures etc. ♦ Ability to carry out basic troubleshoot in case of machine breakdown ♦ Understanding of wastage or resources, to improve efficiency in working ♦ Practicing safety measures in the workplace ♦ Multi skilling
Trade (Retail and Wholesale)	Store/Department Manager	<ul style="list-style-type: none"> ♦ Understanding of cross functional activities in the store esp. logistics, marketing and merchandising ♦ People management skills ♦ Vendor Management ♦ Lack of IT skills
	Billing Associate/ Accountants/ Computer operators	<ul style="list-style-type: none"> ♦ Knowledge of transaction processing software and cash management ♦ Knowledge of tally/accounting practice
	Sales/Customer Service personnel	<ul style="list-style-type: none"> ♦ Product specific knowledge ♦ Customer service and Inter personal skills

Sector	Level	Skill Gap
Building & Construction		<ul style="list-style-type: none"> ♦ Communication skills
	Project Managers/Engineers	<ul style="list-style-type: none"> ♦ Knowledge of design and tools such as AutoCAD etc. ♦ Knowledge of green/eco-building design ♦ Project Management and People Management Skills ♦ Knowledge of appropriate safety practices ♦ Client Management skills (e.g. government officials for approvals, flat owners etc.)
	Supervisors: plumbing, electrical, carpentry, masonry, drilling	<ul style="list-style-type: none"> ♦ Skills in civil- operations of ready mix m/c, earth movers, etc. ♦ Basic repair and maintenance ♦ Exposure to right methodology in construction specific skills like lining, leveling etc. ♦ Site safety concepts and procedures ♦ Lack of finishing skills
	Workmen: plumbing, electrical works, carpentry, masonry, drilling	<ul style="list-style-type: none"> ♦ Basic operating skills related to relevant category ♦ Improved/ better quality in finishing ♦ Site safety concepts and procedures ♦ Ability to understand & follow instructions/ manuals

4.2.8 Recommendations

Future Growth Opportunities in Baloda Bazar

In the context of the current economic profile and proposed investments of the district, the demand for human resources at various skill levels has been analyzed. The observations have been augmented by primary interactions with industry & industry association representatives in the district and government officials at the state and district level. Based on our analysis and considering factors like high growth and employment potential, priority sector for the state government, investment trends, etc., the following sectors/industries have been identified with future growth opportunities for employment and subsequently, skill development in Baloda Bazar.

Table 63: Key Growth Sectors – Baloda Bazar

#	Priority Sectors	Growth opportunities in skills development and employment
1	Agriculture	<ul style="list-style-type: none"> Agriculture is the chief occupation of people in Baloda Bazar. Agriculture is currently providing employment to around 76% of the workers in the district & is expected to grow at around 5.4% over the next decade (2012-22). The total area under cultivation in the district currently is 2.70 lakh hectares¹²². Paddy is the principle crop grown in the district. Wheat, groundnut and maize are the other important crops grown in Baloda Bazar. Presence of rivers like Mahanadi, Shivrathi etc. in the district further facilitates agricultural production. Agriculture is anticipated to be the residual & largest incremental employer in the district accounting for around 51% of the total incremental demand for manpower. It is expected to provide employment to around 71,642 incremental workers over the decade.
2	Manufacturing (Mineral/metal based)	<ul style="list-style-type: none"> Baloda Bazar is famous for its cement plants. It hosts world class cement factories in the vicinity like Ultratech Cement, Ambuja Cement, L&T Cement, Lafarge Cement, Grasim Cement, Shree Cement and Emami Cement. Manufacturing units of mineral/metal based entities is projected to be the 2nd largest employer in the district with approximately 7.5% of the total incremental demand for employment estimated to come from this sector over the period 2012-22. In terms of absolute employment, this sector is likely to employ around 10,532 incremental human resources over the decade.
3	Trade (Wholesale + Retail)	<ul style="list-style-type: none"> Trade (Wholesale+ Retail) is estimated to grow at around 6% over the period 2012-22. The manufacturing industry (especially cement) and mining activities in the district (especially limestone) along with the growth in building and construction activities has enabled the trade of raw materials as well as finished products in the district resulting in increasing manpower demand in the sector. It is anticipated to be one of the largest employers in the district, providing employment to about 6.6% of the total incremental workers in Baloda Bazar over the period 2012-22.
4	Mining & Quarrying	<ul style="list-style-type: none"> Mining & Quarrying activities currently contributes around 18% to the Industry sector contribution in the district and is estimated to grow at 8.9% over the decade (2012-22). Baloda Bazar is very rich in limestone deposits with the tehsils like Simga and Baloda Bazar endowed with major occurrence of Limestone. Incidences of gold have also been reported at the Kasdol tehsil of Baloda Bazar.

¹²² <http://balodabazaar.org/contents/city-profile.php>

#	Priority Sectors	Growth opportunities in skills development and employment
		<ul style="list-style-type: none"> The total mineral revenue receipt from mining of minerals in the district in 2012-13 was Rs. 9251.19 lakhs (Major Mineral: Rs. 8598.43 Lakhs, Minor minerals: Rs. 638.06 lakhs and others: Rs. 14.70 lakhs) which was the 7th highest in the state¹²³. Mining & Quarrying sector is projected to be the 4th largest employer in the district with approximately 4% of the total incremental demand for employment estimated to come from this sector over the period 2012-22.
5	Building and Construction	<ul style="list-style-type: none"> Construction is another major sector in Baloda Bazar which is expected to grow at 12.3% (2012-22). The total budgeted value for ongoing building and construction activities (building and roadwork) in Baloda Bazar for the year 2013-14 is allocated at Rs. 96 crores¹²⁴. Building and construction is projected to be the one of the major contributors in the incremental demand for manpower with approximately 4% of the total incremental demand for employment estimated to come from the sector.
Source: Deloitte Analysis		

Considering the economic and skill landscape of Baloda Bazar, the table below indicates the priority areas of focus for key stakeholders involved. These observations have been mainly derived from the growth opportunities identified above and through primary interactions with industry and industry association representatives in the district along with inputs from the students, training institutes and government.

Table 64: Key Recommendations for Stakeholders – Baloda Bazar

Stakeholder	Priority Areas
NSDC	<p>NSDC can focus the efforts of its training partners in the key sectors identified in the district, viz.</p> <ul style="list-style-type: none"> Agriculture Manufacturing – Mineral & metal based Trade (Wholesale + Retail) Mining & Quarrying Building and Construction
Private training providers	<ul style="list-style-type: none"> There is a need for more courses in manufacturing (mineral & metal based) owing to the demand for more trained workers in the sector. Additionally, courses in building and construction, agriculture and trade (wholesale + retail) can also be explored. The training institutes should introduce/ substantiate multi-disciplinary courses in sectors such as manufacturing, building & construction etc. There is a need for design and delivery of bridge courses with a focus on communication, language, basic IT and soft skills to make students job ready as highlighted in youth survey as well. There is a need to strengthen/improve the current technology and facilities/equipment in the institute as indicated by around 45% of the youth surveyed in the district.
Government	<ul style="list-style-type: none"> The Government should incentivize vocational education and subsequent certification for the workforce in the district in terms of wage revision. The Government should encourage more vocational training institutes on public private partnership mode in the district. The Directorate of Horticulture & Farm Forestry should arrange training and extension

¹²³ Directorate of Geology & Mining, Chhattisgarh

¹²⁴ Chhattisgarh Public Works Department

Stakeholder	Priority Areas
	<p>activities on areas like organic farming, soil conservation techniques; pest management etc. in the district owing to the dependence of the majority of the population on Agriculture. These training activities should be undertaken in tie-ups with the VTP's as well as NSDC partners operational in Baloda Bazar.</p> <ul style="list-style-type: none"> Unavailability of information is one of the key concerns highlighted by youth in the district. For addressing the same, the regional DET offices and employment exchanges should collaborate together and arrange awareness campaigns in the district with focus on providing information on the VTP/Skill development institutes in the district along with the courses offered, registration process, course requirements, future job opportunities etc. It should be followed by at least one annual job fair in the district organized in collaboration with industry. Furthermore, the CSSDA can set up awareness camps and temporary training centers within villages to provide skill development trainings to the youth. Inaccessibility to the training institutes was one of the major concerns highlighted by the rural youth in the district.
Industry	<ul style="list-style-type: none"> There is a need to collaborate with skill development institutes (SDI), ITIs and Employment Exchanges in the district to create structures/ linkages for placement and internship/ OJT opportunities. Industry players should provide inputs on the practical training component in the curriculum for ITIs and skill development institutes to improve the applied component of learning. Approximately 64% of the students surveyed in Baloda Bazar expressed their dissatisfaction with the alignment of the training/education currently provided by the educational institutes in the district with the potential job requirements of the employers. Industry players should participate in relevant SSCs to provide inputs on the qualification requirement, course component etc. especially in the high growth sectors identified in the district. The large industries in the district like Ultratech Cement, Ambuja Cement, L&T Cement, should undertake and encourage vocational training in manufacturing (mineral & metal based) sectors as a part of their CSR activities and partner with relevant Skill Development Institutes in terms of infrastructural support, guest/visiting faculty & On The Job training (OJT) etc.

4.3 Balrampur

4.3.1 District Profile

Balrampur district, located in the northern part of Chhattisgarh came into existence on 1st January 2012, after the erstwhile Surguja district was divided into Surguja, Balrampur and Surajpur. The district is a part of Surguja division in the north and falls under the northern hills agro-climatic zone. It is surrounded by Uttar Pradesh and Madhya Pradesh in the north, Surajpur in the west, Surguja and Jashpur in the south and Jharkhand in the east.

The district is divided into 6 tehsils viz. Ramanujganj, Balrampur, Wadraf Nagar, Samri, Shankargarh and Rajpur. Balrampur is the administrative headquarter of the district.

The district mostly consists of hills. Forests account for around 45.3% of the total geographical area of the district. The forest cover of Balrampur is slightly higher than the state average & comprises of very dense forest (4.5%), moderately dense forest (67.8%) and open forest (27.7%)¹²⁵. Due to the dense forest cover, the district is rich in wildlife. The climate of the district is extreme in nature.

Map 4: Balrampur District

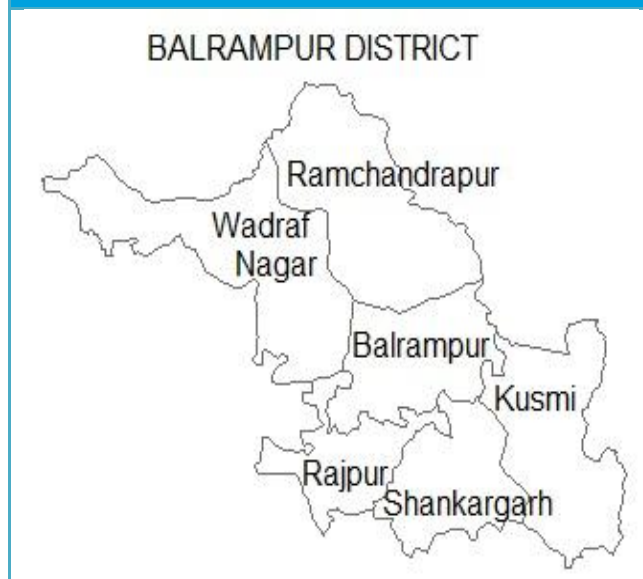


Table 65: Balrampur District Profile

#	Indicator	Balrampur	Chhattisgarh	% Share
1.	Area, in sq.km.	3806 ¹²⁶	135,190	2.8
2.	No. of sub-districts	6	149	4.0
3.	No. of inhabited villages	642	20126	3.2
4.	No. of households	1.63 ¹²⁷	56.51	2.9
5.	Average Land holding size (Ha)	1.00*	1.17	
6.	Forest area cover	45.34%*	41.18%	

Source: Census 2011; Directorate of Economics and Statistics-Govt. of Chhattisgarh; State of Forest Report 2011-Forest survey of India; Deloitte Analysis

* Data is for undivided Balrampur (including Surajpur and Surguja)

¹²⁵ State of Forest Report 2011-Forest survey of India (Data is for undivided Surguja which includes Surajpur and Balrampur)

¹²⁶ <http://balrampur.info/>

¹²⁷ Deloitte Analysis (Divided according to the population ratio of Balrampur, Surguja and Surajpur)

4.3.2 Demography

As per Census 2011, Balrampur has a total population of 7, 30,275 of which males and females comprised 50.7% (3, 70,463) and 49.3% (3, 59,812) of the total district's population respectively. The district shares approximately 2.9% of the state's population. Balrampur is pre-dominantly a tribal district with Scheduled Tribes being the major social class in the district. Scheduled Castes and Scheduled Tribes together constitute about three fifth of the total district population.

The decadal population growth in Balrampur during 2001-2011 was 19.7%¹²⁸, which is lesser than the population growth of 24.7%¹²⁹ during the period 1991-2001. As of 2011, Balrampur ranks 19th amongst all the districts of Chhattisgarh in terms of population.

About 95.2% of the total population resides in rural areas. About 58.9% of the district's population is in the working age population class group. The sex ratio of the district at 971 females present per 1000 males is also lower than the average sex ratio of the state. The per capita income in the district is significantly less than the state average.

Table 66: Demographic Indicators of Balrampur

Demography	Balrampur	Chhattisgarh
Population (2011)	7,30,275	2,55,40,196
Population 15-24 (2011)	1,33,482	49,89,339
Decadal Population Growth Rate (2001-11)	19.7% ¹³⁰	22.6%
Population density per sq. km (2011)	150*	189
Percentage of Urban Population (2011)	4.8%	23.2%
Percentage of SC population (2011)	4.9%*	12.8%
Percentage of ST population (2011)	55.1%*	30.6%
Average household size	4.49*	4.54
Sex Ratio (2011)	971	991
Working age population (15-59) as a percentage of total population, %	58.9%	60.1%
Per Capita Income (2009)	Rs. 11881 ¹³¹	Rs.28263
Source: Census of India 2011; Directorate of Economics and Statistics- Govt. of Chhattisgarh; Deloitte Analysis		
* Data is for undivided Balrampur (including Surajpur and Surguja)		

Key Observations:

- ♦ Balrampur is mainly a tribal district with a very high percentage (55.1%) of Scheduled Tribe population.

¹²⁸ Deloitte Analysis

¹²⁹ Data is for undivided Balrampur (including Surajpur and Surguja)

¹³⁰ Deloitte Analysis

¹³¹ Deloitte Analysis (At 2004-05 constant prices)

4.3.3 Economic Profile

The economy of Balrampur has registered a CAGR of about 6.1% (estimated at constant prices, 2004-05) between 2004-05 and 2008-09 and grown from Rs. 661.12 cr to Rs 839.01 cr¹³². The district recorded a lower growth as compared to the state growth of 9.6% over the same period.

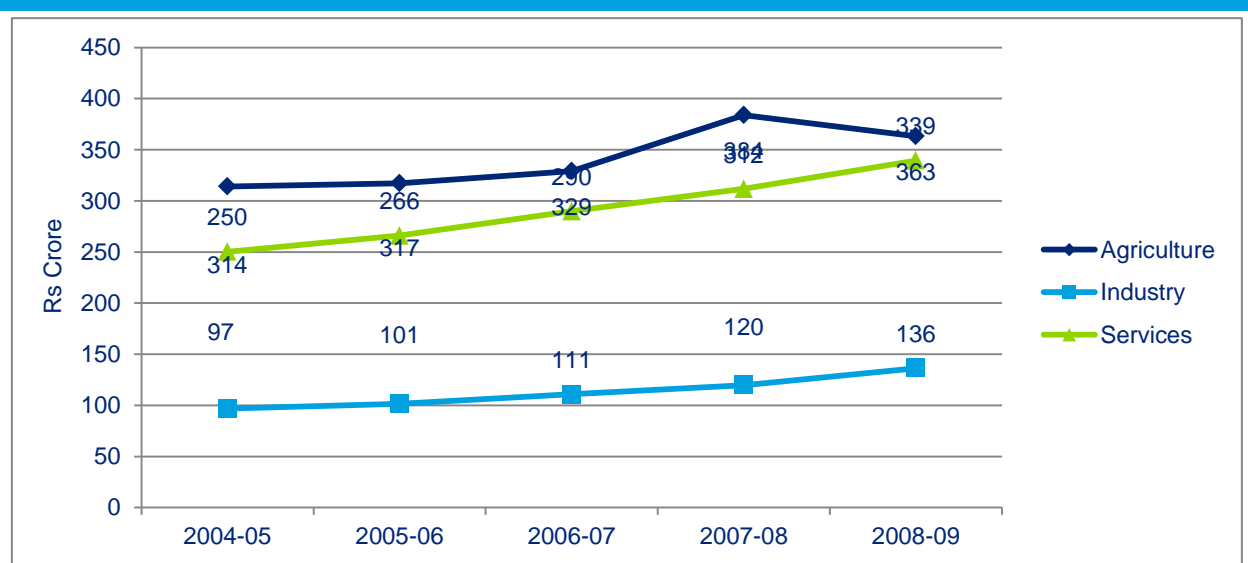
In 2008-09, Balrampur district contributed about 1.2% in the state economic activity and ranked 24th in the state in terms of economic activity amongst all the districts.

The economy of Balrampur district is Agriculture and Services sector based with their respective share in GDDP at **43.3% and 40.5%** in 2008-09. The Industry sector contributed 16.2% in the district economic profile in 2008-09.

In terms of sector level contribution to GDDP, the Agriculture sector's contribution has declined from 47.5% in 2004-05 to 43.3% in 2008-09, as indicated in the figure below. The Services sector contribution registered a marginal increase from 37.9% to 40.5% between the same time periods. The economic contribution of Industry and Services sectors has grown consistently in the district in absolute terms. It is important to note that the share of Industry sector in the district has increased from 14.6% to 16.2% over the period 2005-09.

The sector-wise GDDP growth and distribution in the district from 2005-09 is provided below:

Figure 75: Sectoral Share of GDDP, 2004-05 to 2008-09, Balrampur



Source: Directorate of Economics and Statistics- Govt. of Chhattisgarh; Deloitte Analysis

¹³² Directorate of Economics and Statistics-Chhattisgarh, Deloitte Analysis

Agriculture sector

The contribution of Agriculture sector to the GDDP was 43.3% in 2008-09. The sector witnessed a slow progression and grew at a CAGR of 3.7% between 2004-05 & 2008-09. The overall sectoral contribution declined in the district by about 4.2% over the same time frame. Agriculture was the chief contributor in the total output of Agriculture sector in the district contributing around 80.7% in the year 2008-09 followed by forestry & logging activities (17.3%) and fishing (2.1%).

Balrampur is predominantly an agricultural district. Most of the concentration of double cropped area in the district is found in Rajpur, Shankargarh and Wadrafanagar area. The fertile soil of the district helps in growth of food grains like rice and wheat. The main varieties of rice grown are Vishnu Bhog, Jeerafool and Basmati. Oilseeds and vegetables are also grown in abundance.

Balrampur falls under the Surguja forest circle and the important non-nationalized species available in South Balrampur are Palash, Imli, Mahulpatta, Mahua, Karanj, Chironjee, Shahad, Aonla, Baheda, Dhawai, Satawar, Baibiding, Marorfalli and Nagarmotha. Tribal people collect tendu patta, char, amla, hawai, tendu, and sal leaves. Sal, Dhawai, Amla, Char, Mahua are directly sold to various government and non-government agencies as well as in the open market. These have great economic value. Other sources of income include Lac, Gond and Honey. Besides, sericulture is also practiced in the district.

Industry sector

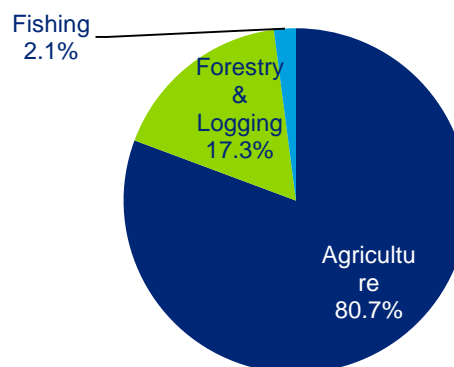
The Industry sector (manufacturing, mining & quarrying, construction, electricity, gas and water supply) contributed 16.2% to the GDDP in 2008-09. The sector grew at an impressive CAGR of around 9% between 2004-05 & 2008-09. The overall contribution of the sector in the district economic profile increased from 25.6% in 2004-05 to 16.2% in 2008-09.

Mining and quarrying sector is the major contributor within the Industry sector accounting for a sectoral share of approximately 39.9% followed by construction (30.2%), manufacturing (22.9%) and electricity, gas & water supply (6.9%).

The district has rich mineral deposits. The district has primarily Coal and Bauxite reserves. The coal fields of Balrampur district belong to Gondwana coal fields. The coal of this area is of good quality gas and stream coals. It is available in Tatapani-Ramkhola area.

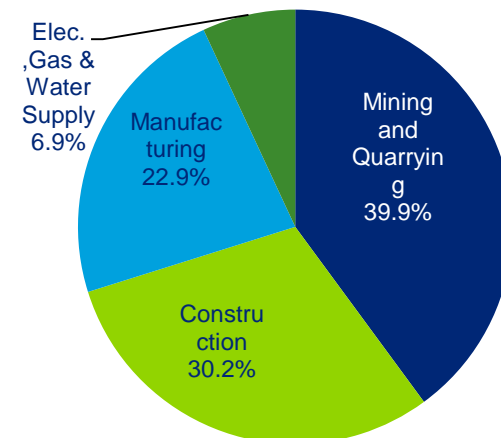
Bauxite deposits of metallurgical grade I is found in tertiary rocks. Jamirapat and Samirpat of Samri tehsil are the two main bauxite reserves. Besides, it is also available in adjacent plateau area of Jamripat, Jaranpat, Lahsunpat, Jonkapat and other small hill rocks. The total mineral revenue receipt from mining

Figure 76: Sub-sectoral break-up of Agriculture sector (2008-09), Balrampur



Source: Directorate of Economics and Statistics- Govt. of Chhattisgarh, Deloitte Analysis

Figure 77: Sub-sectoral break-up of Industry sector (2008-09), Balrampur



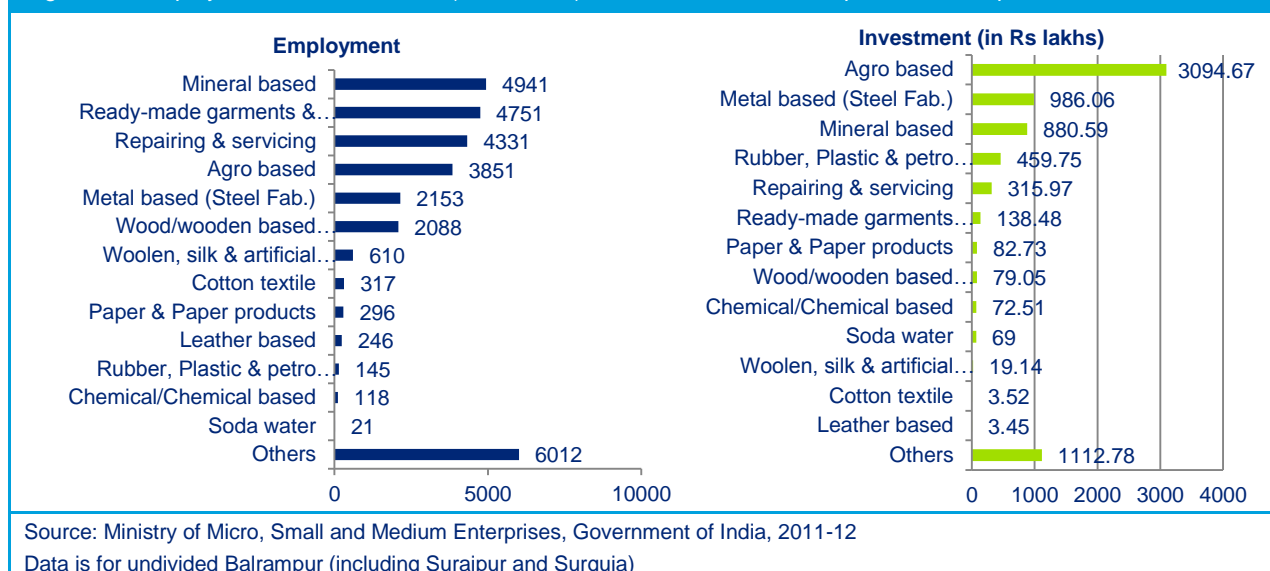
Source: Directorate of Economics and Statistics- Govt. of Chhattisgarh, Deloitte Analysis

of minerals in the district in 2012-13 was Rs. 5308.57 lakhs (Major Mineral: Rs. 5204.18 Lakhs, Minor minerals: Rs. 100.08 lakhs and others: Rs. 4.31 lakhs)¹³³.

Construction is also an important economic activity in the district. The total budgeted value for ongoing building and construction activities (building and roadwork) in Balrampur for the year 2013-14 allocated at Rs. 131 crores shows the current focus of the district on the sector¹³⁴.

Balrampur is not an industrially developed district. There are some agro based industries in the district. The investment in micro and small enterprises in the district along with employment is captured in the figure below.

Figure 78: Employment and Investment (in Rs lakhs) in micro and small enterprises, Balrampur



The key micro and small industries in the sector in terms of employment include mineral based units, ready-made garments & embroidery units, repairing and servicing entities, agro based industries and metal based (steel fabrication) units.

As evident from the figure, the key industries in the MSME sector in terms of investment are agro based industries, metal based (steel fabrication) units, mineral based units, rubber, plastic & petro based units and repairing and servicing entities.

¹³³ Directorate of Geology & Mining, Chhattisgarh

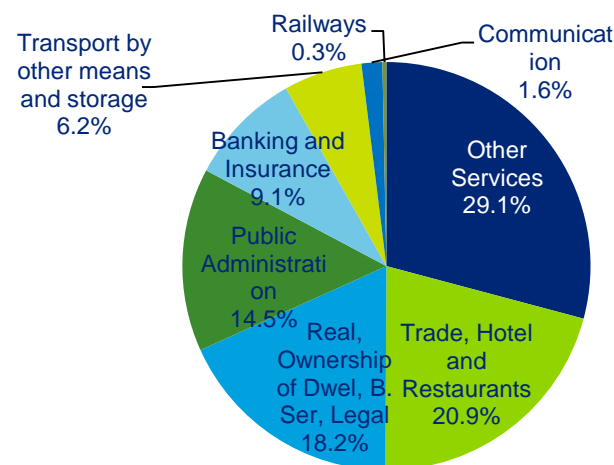
¹³⁴ Chhattisgarh Public Works Department

Services sector

The Services sector contributed to about 40.5% of the district economic profile in the year 2008-09. The sector grew at a CAGR of around 7.9% between the period 2004-05 & 2008-09. The sectoral contribution increased in the district from 37.9% in 2004-05 to 40.5% in 2008-09. The key contributor to the sector is other services contributing approximately 29.1% in the district Services sector followed by trade, hotels & restaurants (20.9%), Real Estate (18.2%), Public Administration (14.5%) and Banking and Insurance (9.1%).

Tatapani is an important tourist destination in the district. The district is efficiently linked to Ambikapur, Ghadwa and Daltonganj through roads.

Figure 79: Percentage contribution of the Services sector (2008-09), Balrampur



Source: Directorate of Economics and Statistics- Govt. of Chhattisgarh, Deloitte Analysis

With a CAGR of about 19.8% and 16.7% over the period 2005-2009, Banking & Insurance and Communication were amongst the fastest growing sectors in the district respectively, though their absolute sizes were small.

Key Observations:

- ♦ The economy of Balrampur district is Agriculture and Services sector based with their respective share in GDDP at **43.3% and 40.5%** in 2008-09.
- ♦ The Industry sector contributed 16.2% in the district economic profile in 2008-09.

4.3.4 Employment Profile

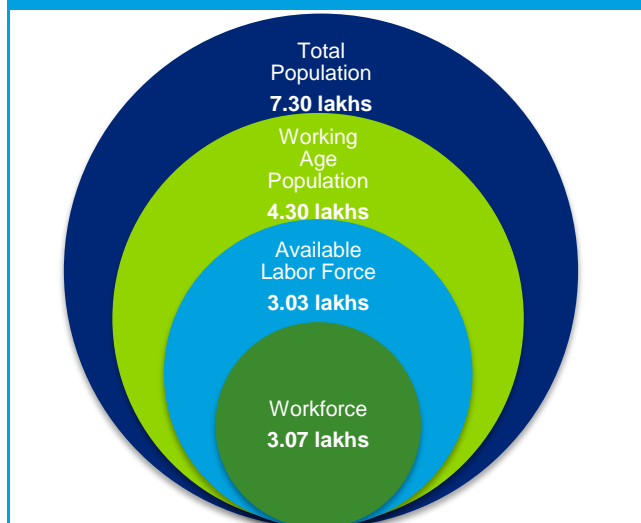
With a total population of 7.3 lakhs in the year 2011, Balrampur accounts for nearly 2.86% of the state's population.

The adjacent figure depicts the estimated workforce in Balrampur in the context of total population of the district. Out of the total population of 7.3 lakhs, the working age population (between 15-59 age group) is estimated at 4.3 lakhs or nearly 58.9%.

Based on the labor force participation rate and the worker participation rate estimates for the state, the available labor force is estimated to be 3.03 lakhs and the workforce is estimated at 3.07 lakhs or nearly 70% of the working age population.

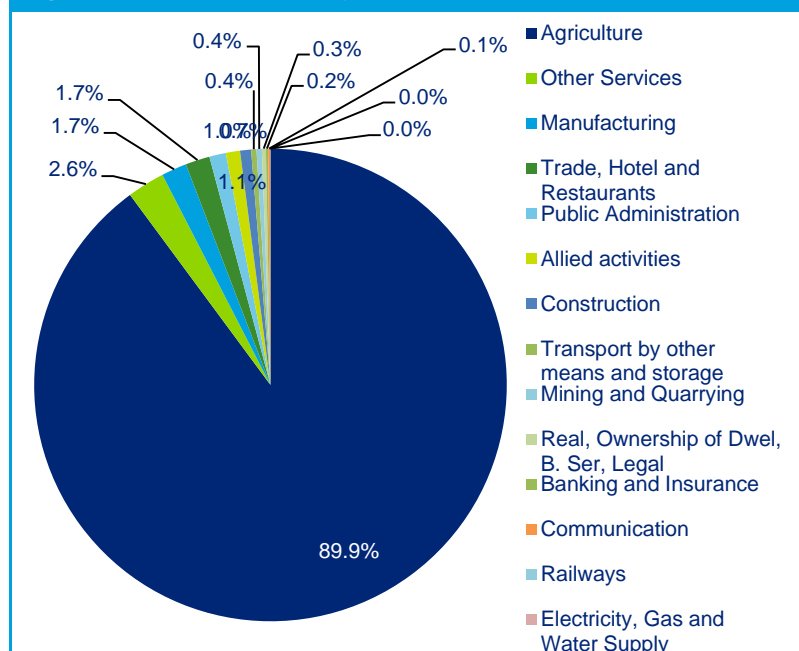
Agriculture sector is the highest employer in the district in 2011 employing around 90.8% of the total available work force, with the sector contributing the highest in the district's economic profile during the same period. It has a share of around 37.0% share in the Gross District Domestic Product. Services sector is the second highest employer in the district employing around 6.3% of the workforce available in 2011 and contributed around 36.8% in the district economic profile.

Figure 80: Total Workforce in Balrampur (2011)



Source: Census 2011 and Deloitte Analysis

Figure 81: Sector wise employment in Balrampur (2011)



Source: Census 2011 and Deloitte Analysis

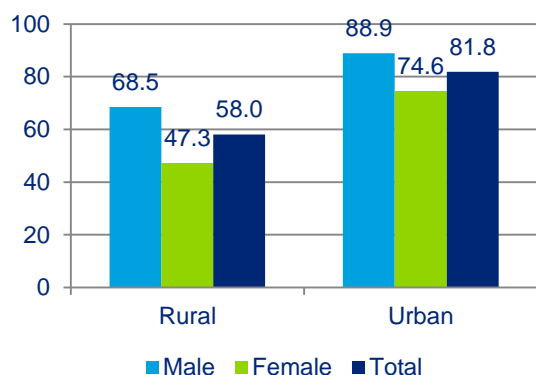
The Industry sector has a share of around 26.2% of the Gross District Domestic Product with the sector employing around 2.8% of the district's workforce in 2011.

The adjoining figure summarizes the sector-wise employment share in Balrampur for the year 2011. Agriculture employs around 90% of the total workforce available in the district followed by other services (2.6%), manufacturing (1.7%), trade, hotels and restaurants (1.7%), and public Administration sectors (1.1%). The top five sectors in the district in terms of employment account for around 97% of the total employment of the available workforce in Balrampur in 2011.

4.3.5 Education Infrastructure

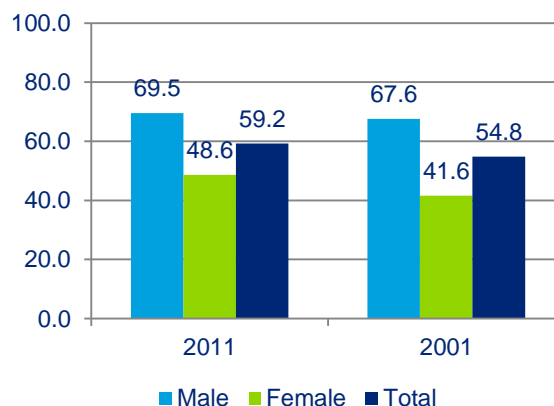
The literacy rate in Balrampur has improved from 54.8%¹³⁵ in 2001 to 59.2%¹³⁶ in 2011. The literacy rate of the district is much lesser than the state's literacy rate of 70.3% in 2011 as well as the all-India literacy rate of 73%. In 2011¹³⁷, male and female literacy rates stood at 69.5% and 48.6% respectively, both figures registering an improvement compared to the 2001¹³⁸ figures of 67.6% and 41.6% respectively. However, there still exists a significant disparity between the male-female and urban-rural literacy rates.

Figure 82: Literacy rate 2011 (by residence), Balrampur



Source: Census of India 2011

Figure 83: Literacy rate (by Gender), Balrampur



Source: Census of India, 2001 and 2011

School Education

Balrampur has 1537 primary schools, 657 upper primary schools, 86 secondary schools and 57 higher secondary schools. Net enrolment ratio (NER) is very high at the primary level. Also, NER at the upper primary level (72.4%) is higher than the state NER of 67.8%.

Table 67: Status of school education infrastructure in Balrampur, 2013

#	Educational Statistics	Units in Balrampur	Units in Chhattisgarh	% Share in State
1	Primary School	1537	35588	4.3%
2	Upper Primary School	657	16442	4.0%
3	Secondary School	86	2632	3.3%
4	Higher Secondary School	57	3548	1.6%
5	NER (Primary) (2010-11)	100%*	98.0% ¹³⁹	-
6	NER (Upper Primary) (2010-11)	72.4%*	67.8%	-

Source: DISE 2012-13

* Data is for undivided Balrampur (including Surajpur and Surguja)

¹³⁵ Data is for undivided Balrampur (including Surajpur and Surguja)

¹³⁶ Census 2011, Deloitte Analysis

¹³⁷ *ibid.*

¹³⁸ Data is for undivided Balrampur (including Surajpur and Surguja)

¹³⁹ Data is for 2008-09

Vocational Education

For vocational training, Balrampur has a total of 5 ITI's in the district, all of which are Government Industrial Training Institutes. Balrampur does not have any dedicated woman ITI. The total capacity of the ITI's in the district is 348. Electrician and Computer Operator and Programming Assistant (COPA) courses have the maximum units affiliated among all the ITI's in the district.

The number of courses available in ITIs and their capacity are listed in the table below.

Table 68: ITIs in Balrampur and their capacity

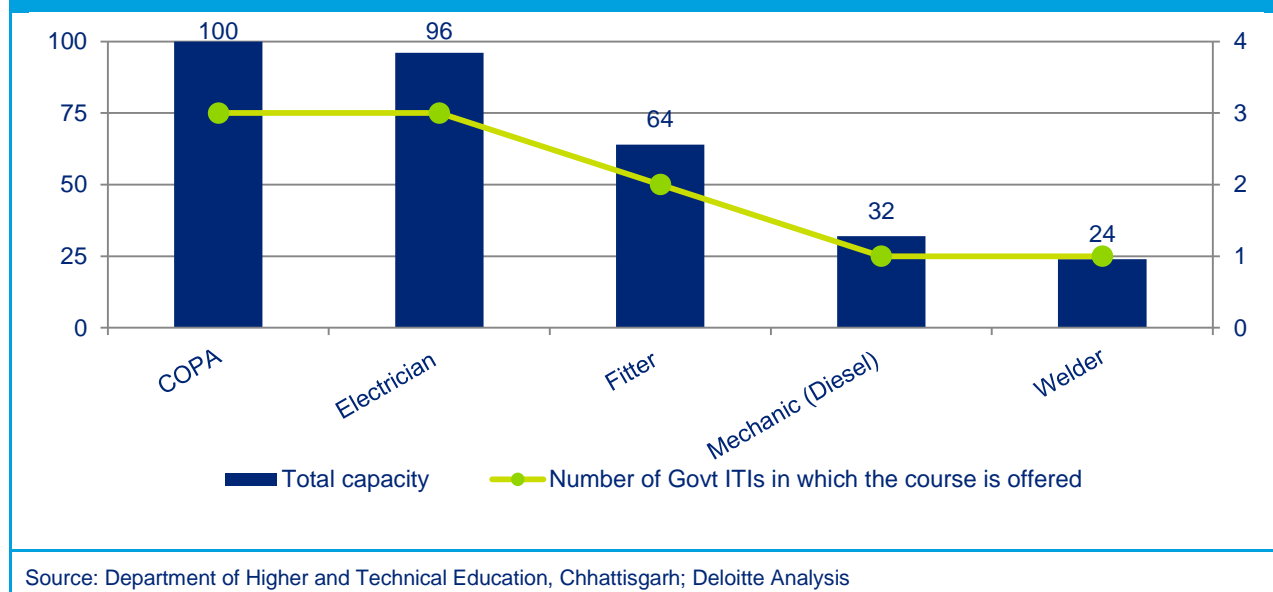
Name of ITI	Number of courses offered	Total Units affiliated	Total Capacity
Government ITI, Rajpur	2	3	48
Government ITI, Wadrafnagar	2	4	64
Government ITI, Samri	2	4	72
Government ITI, Ramanujganj	5	9	144
Government ITI, Ramchandrapur	1	1	20
Total	16*	60	936

Source: Department of Higher and Technical Education- Chhattisgarh; Deloitte Analysis

*Total number of different courses offered by ITI's in Balrampur

The major courses offered in the ITIs and their capacity in Balrampur is given in the figure below:

Figure 84: Major courses offered in ITIs and their capacity in Balrampur



According to Chhattisgarh State Skill Development Mission Website, as of 12th March, 2014, Balrampur has **28 Vocational Training Providers (VTPs)** under which 2131 beneficiaries have been registered. The following table highlights the courses offered in vocational education, which currently meet requirements of about 11 sectors.

Table 69: Courses offered in vocational education, Balrampur

Sector	ITI trades and Units affiliated	Courses Offered by VTPs
Auto and auto components Electronics and IT hardware	Electrician(6), Fitter(4), Mechanic(2), Welder(2),	Automotive Repairs
IT and ITES Tourism, hospitality and travel Organized retail Banking, financial services and insurance	COPA (5), Driver cum Mechanic (1), Stenography(1)	ICT, Soft skill, Printing
Textiles and clothing Food processing		Textile silk, Garment making, Sericulture, Food processing & preservation
Building, construction and real estate Construction material and building hardware		Construction
Unorganized sector (particular reference to agriculture, security, plumbing, domestic worker, foundry, etc.)		Agriculture, Khadi, Beauty Parlor, Wood Work, Paper Product, Bamboo fabrication
Source: CSSDA Website		

The following table highlights the NSDC partners present in Balrampur as of January 2014 and the courses offered by them.

Table 70: NSDC partners present in Balrampur

Name of Partner	Sectors in which course is offered	Courses offered
AISECT	IT/Software	<ul style="list-style-type: none"> • Diploma in Computer Applications (DCA) • Post Graduate Diploma in Computer Applications (PGDCA) • Diploma in Computer Programming and Applications (DCPA) • Certificate in Data Entry Operator (CDEO)
	ITES-BPO	<ul style="list-style-type: none"> • Diploma in Computer Applications (DCA) • Post Graduate Diploma in Computer Applications (PGDCA) • Diploma in Computer Programming and Applications (DCPA) • Diploma in Computer Education (D.C. ED)
Source: NSDC		

Higher Education

The status of higher education in Balrampur is not very promising. Out of a total 590 colleges in the state, only 5 colleges are present in the district of Balrampur indicating the district's share in the higher education space of the state at just 0.8%. This is lesser as compared to its population share in the state (2.9%). Moreover, all the colleges offer general degree courses and are affiliated to Surguja University.

Key Observations:

- The share of Surguja in the higher education space of the state is just 0.8% which is lesser than its population share in the state (2.9%).

4.3.6 Youth Aspirations

Youth population constitutes the most important demographic section for a district from a skills development perspective. In the process of capturing the aspirations of the youth population in Balrampur, focused group discussions were held with youth from educational institutions as well as residing in rural areas to understand their concerns, areas of interest and future dreams and goals. The youth survey in Balrampur was conducted at the Ansh computer Centre; Kavita Welfare Society; Polytechnic, Ramanujganj and Government ITI, Ramanujganj. The FGD in Balrampur was conducted at the Gram Panchayat Bhavan, Jabar. 65% of the respondents were in the age group 15-20 while 32% of them were between 21-25 years. Remaining 3% of the respondents were 26 years and above. In terms of gender representation, around 61% of the participants were males and 39% were females. The educational qualification of about 75% of the participants was high-school level or below. Around 19% of them were graduate and above with the remaining participants being diploma/certificate holder.

The key observations about aspirations of the youth of the district are highlighted below:

Table 71: Youth Aspiration – Key Responses – Balrampur

Parameters	Responses
Job Preference	Most of the youth are currently working with private players. However, the majority of the youth surveyed preferred Government jobs over private jobs due to the job security and better practices offered in a Government job. Moreover, regular/ salaried employment is also preferred over self-employment.
Factors influencing selection of training institution	Institutions are selected on the basis of quality of the educational institutes and future placement/job opportunities post education/training.
Preferred Course	<ul style="list-style-type: none"> • Training for job readiness appears to be most popular among the youth in the district. Apart from the regular courses offered by educational/ training institutions; spoken English, basic communication skills, personality development, soft skills & basic IT skills are considered to be very important by the youth which they feel is one of the most important element to get a job. • Boys also expressed interest in trades of COPA, Electrician, Fitter and Welder. • Girls indicated preference for self-employment activities like sewing, tailoring, cottage industries etc.
Migrating for job	Most of the youth prefer jobs within the district . Since the job prospect within the district is low, they are forced to migrate to neighboring cities .
Salary Expectations	Average monthly salary expectation of youth ranges between Rs 20,000 –30,000/-
Areas of concern/ aspirations- Infrastructure	<p>Following views were expressed regarding infrastructure in educational institutions:</p> <ul style="list-style-type: none"> • Youth reported poor quality of infrastructure in the institutes in terms of building, laboratories, table and chairs, books in the library, etc. • The inadequacy of computers in schools and non-functioning of those available was also highlighted. • The need for proper electricity connection along with tube lights and fans was also highlighted.
Areas of concern/ aspirations-Course Curriculum	<ul style="list-style-type: none"> • Youths expressed that admission process should be modified, need for counseling before admission was emphasized. • Rural youth expect free computer training, free coaching for competitive examination and training camps within the district. • Youth expressed that the government should help in facilitating industrial tie-ups with the educational institutions for apprenticeships/OJT/internship. • Youth feel that institutes should focus more on soft skill and language training besides technical know-how, and it is critical for getting a good job.

Parameters	Responses
	<ul style="list-style-type: none"> Local industries should train people on apprenticeship/ intern model to improve job prospects.
Other concern	<ul style="list-style-type: none"> Rural youth are of the opinion that since they are not sufficiently qualified, they get less salary compared to their work output. It was also learnt that youth are not aware about the newly introduced Govt. initiatives on skill development such as VTPs (MES/ SDI scheme) and NSDC training partners. A very few of the respondents preferred to be self-employed.
Suggestions given by youth	<ul style="list-style-type: none"> The youth expect Govt. to take up initiatives to improve college infrastructure. More employment fairs should be organized in the district for facilitating employment of the youth. Youth expressed that Govt. should take measures to provide proper education facilities to the poor people. There should be more courses, practical classes, resourceful, efficient and regular teachers available in the institutes. Youth expressed the need for better trainers and faculty in the institutes. Clean drinking water and sanitation inside and around the building should be arranged by the government.

A sample survey was conducted with youth at gram panchayat level & those coming out from various educational institutions (Government & private) to understand & capture their aspirations. The findings are presented below:

Job preference by youth

The majority of the youth surveyed (93%) **prefer to get a job within district** as is shown in the adjacent figure. Approximately 4% of them preferred job within their state of residence. The survey highlights the fact that around **97% of the youth surveyed prefer to get a job within Chhattisgarh** if suitable employment opportunities are available in the district.

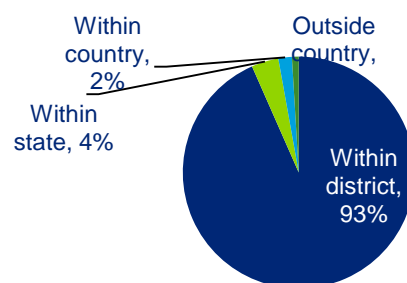
Parameter for Institute Selection

A majority of the students surveyed (79%) at the gram panchayat level quoted the **quality of education offered by the educational institution** as their prime parameter while selection of an institute for higher education. Around 21% of the students look at the placement opportunities offered by the institute for making a choice.

Youth Perception Mapping

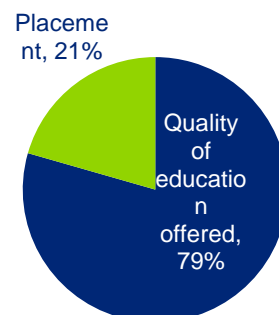
Youth perception mapping was undertaken to understand the current level of satisfaction of the students with either their current institute or their experience and feedback on the available educational infrastructure. The results are summarized below:

Figure 85: Job Preference by Youth



Source: Deloitte Analysis

Figure 86: Parameter for Choice of Institute



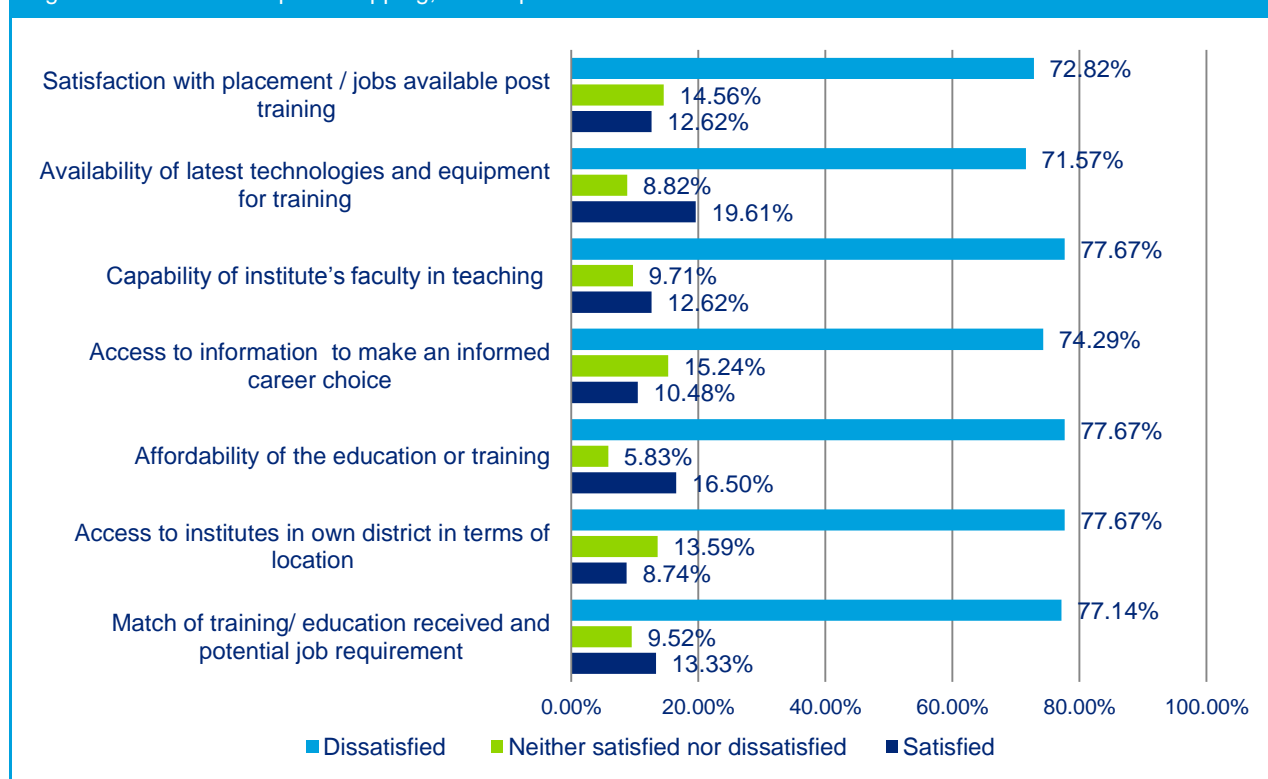
Source: Deloitte Analysis

Low satisfaction with placement / jobs available post training: Around 73% of the students surveyed expressed their dissatisfaction with the placement opportunity available in the institute or jobs available post training. Approximately **13% of the respondents feel the job opportunities available to them post training are satisfactory**. Majority of the youth shared their expectation of being provided with a placement opportunity by the institute or facilitate a tie-up with nearby companies to give them an experience of hands on training.

Non-availability of latest technologies and equipment for training: **72% of the students surveyed expressed their dissatisfaction** with the availability of latest technology & equipment for training in the institute while around 20% of them shared their satisfaction with the same. The students feel the lack of equipment as a major constraint for their knowledge enhancement and appropriate level of skill development. They demanded the institutes to be adequately equipped and upgraded with latest technology.

Dissatisfaction with capability of institute's faculty in teaching: Around 78% of the students (especially the students from Government ITI's) feel the **quality of teaching by faculty** is not satisfactory and needs significant improvement. They also highlighted their concern regarding shortage of faculty in the institutes as per the course requirement.

Figure 87: Youth Perception Mapping, Balrampur



Source: Deloitte Analysis

Need for better access to information to make an informed career choice: The majority of the students surveyed expressed their dissatisfaction with the access to information in the district to make an informed career choice. Around 74% of the students surveyed felt that they did not get proper accessibility to information to make an informed career choice. The concern was raised more by the rural youth who reported the **absence of appropriate guidance/counseling facility in their vicinity**. This

highlights the significance of arranging career counseling for the potential students either at the school level or at the respective vocational institutes.

Affordability of the education/training a concern for students: Majority of the students surveyed (around 78%) **expressed their dissatisfaction in terms of affordability of training/education** and they find the current fee structure to be out of their reach. They expressed the need to have scholarship schemes by Government to finance their training. Moreover, they also raised their concern regarding the quality of training programme offered in the institutes.

Access to institutes is an issue in rural areas: Around 78% students surveyed feel the educational institutes to be inaccessible in terms of location and majority of them were rural youth. 9% of the students surveyed expressed their satisfaction with the accessibility of the educational institutes in the district in terms of location. They found the institute to be located in an accessible area and safe in terms of the duration of classes. The rural youth voiced the government to support them by arranging suitable transport facility.

Dissatisfaction with the alignment of training/education received with job requirements: Approximately 77% of the students surveyed feel that the training/education currently provided by the educational institutes in the district is not in alignment with the potential job requirements of the employers. Thus, the survey brings out the need to make appropriate changes in the course curriculum to make the same more application based and industry relevant.

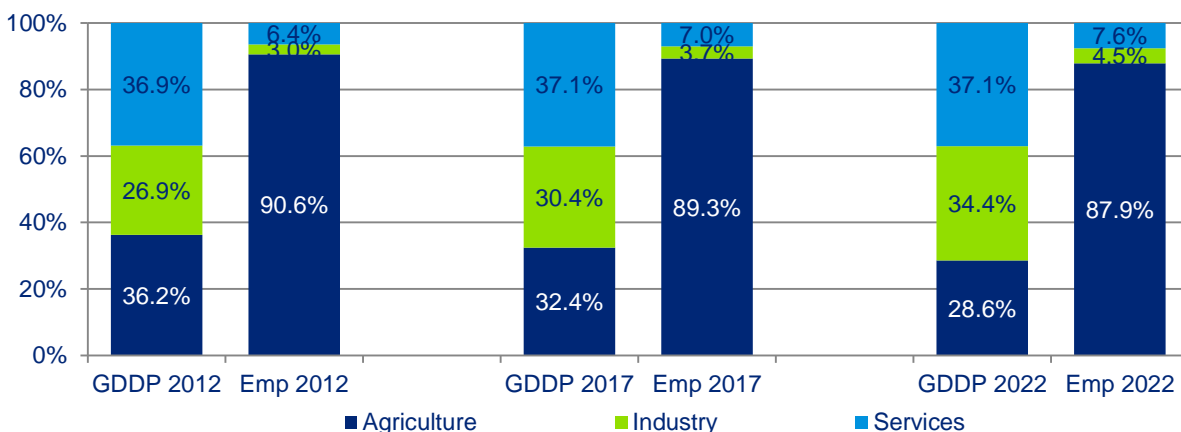
Key Observations:

- ♦ Most of the youth preferred Government jobs over private jobs due to the job security and facilities offered in a Government job. However, women are more interested in self-employment activities like tailoring and sewing.
- ♦ Students select the institutes on the basis of the quality of educational institutes and future placement/job opportunities post education/training.
- ♦ Need for creating linkages for placement and apprenticeship/internship was strongly expressed by the youth. They also expressed their need for more employment fairs in the district for facilitating employment.
- ♦ Training for job readiness appears to be most popular among the youth in the district. Apart from the regular courses offered by educational/ training institutions; spoken English, basic communication skills, personality development, soft skills & basic IT skills are considered to be very important by the youth which they feel is one of the most important element to get a job.
- ♦ The inadequacy of training equipment and computer & internet facility in institutes was also highlighted by the youth.
- ♦ Youth are not aware about the different Government initiatives on skill development. As per them, the Govt. should take suitable measures to improve upon the awareness of the various schemes/initiatives being introduced.
- ♦ Youth expressed the need for more courses, practical classes, efficient and regular teachers available in the institutes.

4.3.7 Skill Gap Assessment

The working age population (15-59) constituting 58.9% of total district population in 2011, is expected to increase to 62.1% by 2022.

Figure 88: Comparison of Sectoral share in GDDP & Employment, Balrampur



Source: Deloitte Analysis

Based on our analysis and primary interactions, the Agriculture sector is expected to play a significant role and will continue to be an important sector in terms of providing employment in the district. It currently accounts for the largest share of workforce and is anticipated to be the major employer in the district. If the trends in employment continue, in 2021-22, the share of employment across the Agriculture sector is expected to decline to 87.9% as compared to 90.6% in 2012.

The Industry and Services sector employment share are estimated to increase to 4.5% and 7.6% respectively, as indicated in the table above. This trend appears to be in line with the national trend as well where people are moving out of the Agriculture sector and moving into the Industry and Services sectors respectively.

Incremental Human Resource Demand

As per the methodology, the total incremental demand for manpower in Balrampur from 2012 to 2022 is expected to be around 0.48 lakh. Following table provides the break-up of the incremental demand for manpower in Balrampur as per the skill levels required.

Table 72: Estimated Incremental Human Resource Demand ('00) by Skill Level in Balrampur

	2012-17	2017-22	Total
Skilled	24	28	52
Semi-Skilled	44	49	93
Minimally Skilled	167	168	335
Total	236	244	480

Source: Deloitte Analysis

Some of the key trends observed on the demand side include

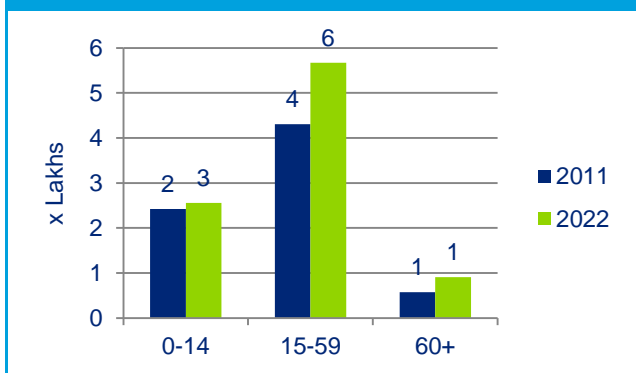
- ♦ *Agriculture would be the largest incremental demand generating sector (66.7%) in Balrampur with demand largely in the minimally skilled level. Balrampur is predominantly an agriculture dominant district. The fertile soil of the district helps in growth of food grains like rice and wheat. The main varieties of rice grown in the district are Vishnu Bhog, Jeerafool and Basmati. Oilseeds and vegetables are also grown in abundance.*
- ♦ *The building and construction sector is estimated to be the next important segment in the district in terms of demand for incremental employment (4.6%) wherein the share of skilled, semi-skilled and min. skilled is projected to be around 15%, 40% and 45% respectively.*
- ♦ *Within the Industry sector, food processing - primarily agro based (2.7%) is the other expected growth sector in the district in terms of incremental demand for manpower.*
- ♦ *Analysis of formal and informal employment indicates that the incremental demand for manpower in formal sector would come mainly from Public Administration, Mining and Quarrying, Building and Construction and BFSI.*
- ♦ *Majority of demand for incremental manpower in the informal sector is projected to come from Agriculture, Food Processing, Textiles & garments and Building & Construction.*

Table 73: Incremental Human Resource Demand ('00) by Skill Level in Balrampur- Key Sectors

#	Key Sectors	2012-17				2017-22			
		Skilled	Semi-skilled	Minimally Skilled	Total	Skilled	Semi-skilled	Minimally Skilled	Total
1	Agriculture	5	16	141	162	5	16	137	158
2	Building & Construction	1	4	4	10	2	5	6	12
3	Food Processing	1	2	4	6	1	2	4	7
4	Others	17	22	18	58	20	26	21	67
5	Total	24	44	167	236	28	49	168	244
Overall Incremental Demand					480				
Source: Deloitte Analysis									

Incremental Human Resource Supply

Figure 89: Age wise distribution of population, Balrampur 2011 and 2022 (projected)



Source: Census 2011 and Deloitte Analysis

The population of Balrampur is expected to increase from 7.30 lakhs in 2011 to 9.13 lakhs in 2022.

The adjacent figure provides the current and projected population across various age groups. As per the analysis, the number of persons in the working age group is expected to increase by around 32% during the period 2011-22. The number of children in the 0-14 age group is likely to decline by 5% over the same time period. This represents a potential demographic dividend for the district with a large increase in the employable population. On the other hand, it presents a huge challenge for the state to make available higher

education and skill development facilities as well as ensure productive employment opportunities for its working age population.

As per the methodology, the estimated incremental manpower supply in Balrampur over a period of 10 years (2012-22) will be around 0.98 lakh. Incremental manpower supply can be further classified into skilled, semi-skilled and minimally-skilled as per the education qualifications and estimated output of educational and vocational training institutes in the district.

Table 74: Estimated Incremental Human Resource Supply ('00) by Skill Level in Balrampur

	2012-17	2017-22	Total (2012-22)
Skilled	35	39	74
Semi-Skilled	104	114	218
Minimally Skilled	348	340	688
Total	486	493	980

Source: Deloitte Analysis

Some of the key trends observed on the supply side include

- Proportion of incremental supply of minimally skilled manpower is 70.2%, compared to 22.3% of semi-skilled and 7.5% of skilled manpower (2012-22)
- The share of Balrampur in the higher education space of Chhattisgarh is just 0.8%. This also reflects in the proportion of skilled workforce in the district which is anticipated to be the least (7%) during the period 2012-17 and is likely to increase to 8% over the period 2017-22.
- The supply of semi-skilled workforce in the district is estimated to increase while the supply of minimally skilled workforce is likely to decrease over the two time periods which are in-line with the current focus of government in improving the skill development space of the state.
- The trend of migration is expected to be inward from other states and districts across all skill levels and would account for nearly 1.9% of the incremental supply.

Incremental Demand Supply Gap

During the period 2012-22, the incremental human resource demand in Balrampur across all skill levels is estimated to be 0.48 lakh while the supply is projected to be 0.98 lakh indicating thus a surplus of around

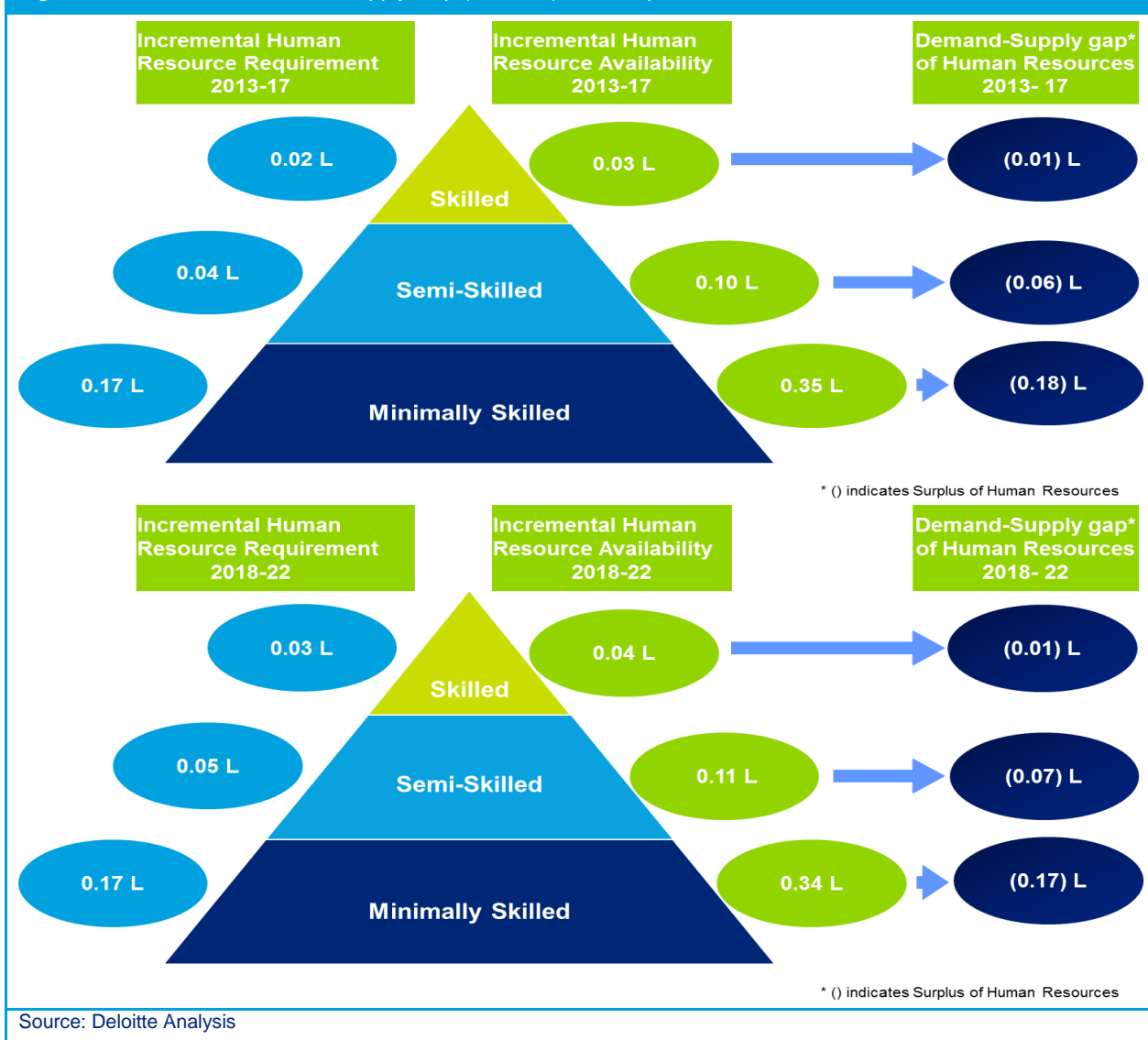
0.50 lakh people (refer table below). There is estimated to be an excess supply across all skill segments (skilled, semi-skilled and minimally skilled).

Table 75: Projected Demand Supply gap ('00) by skill levels in Balrampur

#	District Skill Gap	2012-17				2017-22			
		Skilled	Semi-skilled	Min. Skilled	Total	Skilled	Semi-skilled	Min. Skilled	Total
1	Incremental HR Requirement (Demand)	24	44	167	236	28	49	168	244
2	Incremental HR Availability(Supply)	35	104	348	486	39	114	340	493
3	Demand-Supply Gap	(10)	(60)	(181)	(251)	(12)	(65)	(172)	(249)
	Overall Demand-Supply Gap				(500)				
Source: Deloitte Analysis									

During the period 2012-22, the incremental manpower demand supply gap of the district (across all sectors mentioned above) is expected to be a surplus of about 0.50 lakh people with the excess supply across all skill categories i.e. skilled, semi-skilled and minimally skilled as shown in the following figure.

Figure 90: Incremental Demand-Supply Gap (in Lakhs) , Balrampur



Some of the key trends observed on the demand-supply gap of the human resource include

- ♦ The composition of the human resource demand supply gap over the two different time periods i.e. 2012-17 and 2017-22 is expected to remain the same.
- ♦ There is likely to be an excess supply of skilled resources in the period 2012-22. However, even in the case of surplus supply of workers in the skilled segment, it is pertinent to note that it does not imply industry demand for skills is being sufficiently met. The industry interactions have revealed employability linked skills as a key area of concern. Approximately, 87% of the total skilled workforce in district is estimated to be from general degree courses having undergone no job/skill specific training. The changing landscape of the sector including use of new technology and practices imply a need for reskilling and up skilling of the existing workers.

- ♦ As indicated in the adjacent figures, the trend of excess supply is likely to continue in the semi-skilled segment across both the time periods. However, approximately 77% of the total semi-skilled workforce is estimated to be class 12 pass outs having undergone no job/skill specific training.
- ♦ In line with the rural-urban population distribution in the district (95% of the population residing in rural areas) and dominance of agriculture in employment in the district, the major contributor to the incremental supply is the minimally skilled segment. This may result in some intra state migration of the surplus supply of minimally skilled workers from Balrampur to districts like Korea, Korba, Raipur, Durg etc. in search of employment.

Qualitative Skill Gaps

The qualitative skill gaps that were highlighted during our primary interactions with industry at Balrampur are provided in the table below.

Table 76: Qualitative Skill Gaps

Sector	Level	Skill Gap
Agriculture	Tractor operator and mechanics/ Electricians/ Mechanics for repair & maintenance of agricultural tools & implements	<ul style="list-style-type: none"> ♦ Sufficient training to address tool & equipment failures like motor pump failure, gear damage, tyre puncture etc.
Building & Construction	Project Managers/Engineers	<ul style="list-style-type: none"> ♦ Knowledge of design and tools such as AutoCAD etc. ♦ Knowledge of green/eco-building design ♦ Project Management and People Management Skills ♦ Knowledge of appropriate safety practices ♦ Client Management skills (e.g. government officials for approvals, flat owners etc.)
	Supervisors: plumbing, electrical, carpentry, masonry, drilling	<ul style="list-style-type: none"> ♦ Skills in civil- operations of ready mix m/c, earth movers, etc. ♦ Basic repair and maintenance ♦ Exposure to right methodology in construction specific skills like lining, leveling etc. ♦ Site safety concepts and procedures ♦ Lack of finishing skills
	Workmen: plumbing, electrical works, carpentry, masonry, drilling	<ul style="list-style-type: none"> ♦ Basic operating skills related to relevant category ♦ Improved/ better quality in finishing ♦ Site safety concepts and procedures ♦ Ability to understand & follow instructions/ manuals
Food Processing	Procurement Managers	<ul style="list-style-type: none"> ♦ Ability to forecast demand and undertake procurement accordingly ♦ Ability to locate and enter into relationships with farmers
	Plant Associates and operators	<ul style="list-style-type: none"> ♦ Limited basic engineering knowledge esp. on practical aspects, process knowledge e.g. distillation
	Material Handlers	<ul style="list-style-type: none"> ♦ Limited awareness on quality, health and hygiene awareness ♦ Limited basic computer skills including barcode reading
	Sales and marketing	<ul style="list-style-type: none"> ♦ Limited Communication skills, ability and willingness to understand the manufacturing process
	Machine Operators	<ul style="list-style-type: none"> ♦ Insufficient knowledge of machine operation and use ♦ Ability to understand & follow instructions/ manuals ♦ Limited ability to carry out basic repairs and troubleshooting

4.3.8 Recommendations

Future Growth Opportunities in Balrampur

In the context of the current economic profile and proposed investments of the district, the demand for human resources at various skill levels has been analyzed. The observations have been augmented by primary interactions with industry & industry association representatives in the district and government officials at the state and district level. Based on our analysis and considering factors like high growth and employment potential, priority sector for the state government, investment trends, etc., the following sectors/industries have been identified with future growth opportunities for employment and subsequently, skill development in Balrampur.

Table 77: Key Growth Sectors - Balrampur

#	Priority Sectors	Growth opportunities in skills development and employment
1	Agriculture	<ul style="list-style-type: none"> Agriculture was providing employment to around 89% of the workers in the district in 2013 & is likely to be one of the major employers in the district over the decade (2012-22). Agriculture is anticipated to be the largest incremental employer in the district accounting for around 66.7% of the total incremental demand for manpower. It is expected to provide employment to around 32,018 additional workers over the decade. Paddy & Wheat cultivation would be the major activity within Agriculture sub-sector in the district.
2	Building and Construction	<ul style="list-style-type: none"> Construction is another major sector in Balrampur which is expected to grow at 9.8% over the decade (2012-22). The total budgeted value for ongoing building and construction activities (building and roadwork) in Balrampur for the year 2013-14 is allocated at Rs. 131crores¹⁴⁰. Building and construction is projected to be the 2nd largest incremental employer in the district with approximately 4.6% of the total incremental demand for employment estimated to come from the sector over the next decade.
3	Manufacturing - Food Processing	<ul style="list-style-type: none"> Agro based industries are one of the key industries in the MSME sector in Balrampur. Food processing is projected to be one of the largest employers in the district with approximately 3% of the total incremental demand for employment estimated to come from this sector over the period 2012-22.

Source: Deloitte Analysis

Considering the economic and skill landscape of Balrampur, the table below indicates the priority areas of focus for key stakeholders involved. These observations have been mainly derived from the growth opportunities identified above and through primary interactions with industry and industry association representatives in the district along with inputs from the students, training institutes and government.

Table 78: Key Recommendations for Stakeholders - Balrampur

Stakeholder	Priority Areas
NSDC	<p>NSDC can focus the efforts of its training partners in the key sectors identified in the district, viz.</p> <ul style="list-style-type: none"> ♦ Agriculture ♦ Building and Construction ♦ Manufacturing – Food Processing

¹⁴⁰ Chhattisgarh Public Works Department

Stakeholder	Priority Areas
Private training providers	<ul style="list-style-type: none"> There is a need for more courses in building and construction owing to the likely demand for more trained workers in the sector. Additionally, courses in agriculture and food processing can also be explored. The training institutes should facilitate more industry tie ups especially in high growth sectors to focus on up skilling the existing workers as per current industry trend & requirements. There is a need for design and delivery of bridge courses with a focus on communication, language, basic IT and soft skills to make students job ready as highlighted in youth survey as well. For skilling the minimally skilled workers in the district, Government can offer the following MES level courses in the high growth sectors identified which require minimum qualification as 5th Standard : <ul style="list-style-type: none"> Construction: Plumber, Basic electrical training, Painter Assistant, Asst. Mason Food Processing: Basic Food Preservation
Government	<ul style="list-style-type: none"> To improve upon the quality of education in the state, the government must mandate accreditation of colleges to initiate sustainable improvement in quality of education. The government can promote colleges under PPP mode for training and graduating more students in high demand sectors. The Directorate of Horticulture & Farm Forestry should arrange training and extension activities on areas like organic farming, soil conservation techniques; pest management etc. in the district owing to the dependence of the majority of the population on Agriculture. These training activities should be undertaken in tie-ups with the VTP's as well as NSDC partners operational in Balrampur. The government should facilitate programs to encourage self-employment in the district. For this purpose, the MSME-DI, Raipur can arrange multiple product-cum-process oriented programs in the district like Entrepreneurship Skill Development programmes (ESDPs), Entrepreneurship Development Programmes (EDPs), Industrial Motivation Camps (IMCs), BSDPs etc. with an objective of developing entrepreneurial qualities and preparing new entrepreneurs to setup their own small enterprises. Unavailability of information is one of the key concerns highlighted by youth in the district. For addressing the same, the regional DET offices and employment exchanges should collaborate together and arrange awareness campaigns in the district with focus on providing information on the VTP/Skill development institutes in the district along with the courses offered, registration process, course requirements, future job opportunities etc. It should be followed by at least one annual job fair in the district organized in collaboration with industry.
Industry	<ul style="list-style-type: none"> More industry interactions should be initiated in the agriculture, building & construction and food processing sectors in the district. There is a need to collaborate with skill development institutes (SDI), ITIs and Employment Exchanges in the district to create structures/ linkages for placement and internship/ OJT opportunities. The major private players as well as public sector enterprises in the state should undertake and encourage vocational training as part of their CSR activities either by partnering with the Skill Development Institutes for training or providing funds/resources for the same. Industry players should collaborate with private training providers/skill development institutes for identification of sector specific employable skills based on division of work in the labor market and help in updating the course content as well as delivery of the programs. Approximately 77% of the students surveyed in Balrampur expressed their dissatisfaction with the alignment of the training/education currently provided by the educational institutes in the district with the potential job requirements of the employers.

4.4 Bastar

4.4.1 District Profile

Bastar district is located in the southern portion of Chhattisgarh. The district is a part of Bastar division. In 1998, the former Bastar district of Madhya Pradesh was divided into Bastar, Kanker and Dantewada. In 2007, Narayanpur was carved out of Bastar. In 2012, the district was divided into the present day districts of Bastar and Kondagaon. It is surrounded by Kondagaon on the north, Narayanpur on the north-west, Bijapur on the west, Dantewada and Sukma on the south and Nabarangpur and Koraput districts of Odisha state on the east. It extends over an area of 4029 sq. Km, which is 3% of the total state area. The district is divided into 7 tehsils viz. Jagdalpur, Bastar, Bastanar, Bakawand, Darbha, Tokapal, Lohandiguda, 618 villages, 317 gram panchayats, 7 Janpad Panchayats, 12 Revenue Circles and 164 Patwari Halkas¹⁴¹. The district headquarter is Jagdalpur. The district is enriched with natural beauty and pleasant atmosphere. It is surrounded with dense forests, hilly mountains, streams, waterfalls, natural caves, natural parks etc. The Chitrakoot and Tirathgarh waterfalls are situated close to Jagdalpur. Art & culture are the valuable ancient properties of the district. Bastar is famous for its traditional Dusshera festival¹⁴².



Forests account for around 53.50% of the total geographical area of the district¹⁴³. The forest cover of Bastar is higher than the state average & comprises of very dense forest (16.8%), moderately dense forest (54.1%) and open forest (29.1%)¹⁴⁴.

Table 79: Bastar District Profile

#	Indicator	Bastar	Chhattisgarh	% Share
1.	Area, in sq.km.	4029	135,190	3.0
2.	No. of sub-districts	7	149	4.7
3.	No. of inhabited villages	603	20126	3.0
4.	No. of households (Lakhs)	1.84 ¹⁴⁵	56.50	3.3
5.	Average Land holding size (Ha)	1.11*	1.17	-
6.	Forest area cover	53.50% ¹⁴⁶	41.18%	-
Source: Census 2011; Directorate of Economics and Statistics- Government. of Chhattisgarh; State of Forest Report 2011-Forest survey of India; Deloitte Analysis				
*Data is for undivided Bastar (including Kondagaon)				

¹⁴¹ Bastar district website (<http://bastar.gov.in/>)

¹⁴² Bastar district website (<http://bastar.gov.in/>)

¹⁴³ State of Forest Report 2011-Forest survey of India (Data is for undivided Bastar which includes Kondagaon & Narayanpur)

¹⁴⁴ Ibid.

¹⁴⁵ Deloitte Analysis (Divided according to the population ratio of Bastar and Kondagaon)

¹⁴⁶ State of Forest Report 2011-Forest survey of India (Data is for undivided Bastar which includes Kondagaon & Narayanpur)

4.4.2 Demography

As per Census 2011, Bastar has a total population of 8,33,318 of which 83.8% of the people reside in the rural areas¹⁴⁷. The decadal population growth in Bastar during 2001-2011 was 17.83%¹⁴⁸, which is lower than the state average of 22.61% during the same period.

As of 2011, Bastar is the 12th most populous district of Chhattisgarh and has a population share of 3.26% at the state level. As per Census 2011, the Makdi, Lohandiguda, Bastanar, Bakawand, Tokapal and Darbha tehsils in Bastar have zero urban population.

The population density and urban share of population is lower than the state. The sex ratio of Bastar is higher than the state figure with around 1018 females per 1000 males¹⁴⁹. About 61.3% of the population is in the working age population class group.

Table 80: Demographic Indicators of Bastar

Demography	Bastar	Chhattisgarh
Population (2011)	8,33,318	2,55,40,196
Population 15-24 (2011)	1,66,673	49,89,339
Decadal Population Growth Rate (2001-11)	17.8%	22.6%
Population density per sq. km (2011)	140	189
Percentage of Urban Population (2011)	16.2%	23.2%
Sex Ratio (2011)	1018	991
Working age population (15-59) as a percentage of total population, %	61.3%	60.1%
Per Capita Income (2009)	Rs. 21,492 ¹⁵⁰	Rs.28,263
Source: Census of India 2011, Directorate of Economics and Statistics- Government. of Chhattisgarh, Deloitte Analysis		

Key Observations:

- Bastar is one amongst the moderately populated districts in the state. As of 2011, the district ranks 12th among all the districts in Chhattisgarh in terms of population.
- The sex ratio of Bastar is higher than the state figure with around 1018 females per 1000 males.

¹⁴⁷ Census 2011

¹⁴⁸ *ibid.*

¹⁴⁹ Census 2011 and Deloitte analysis

¹⁵⁰ At 2004-05 constant prices, Deloitte Analysis

4.4.3 Economic Profile

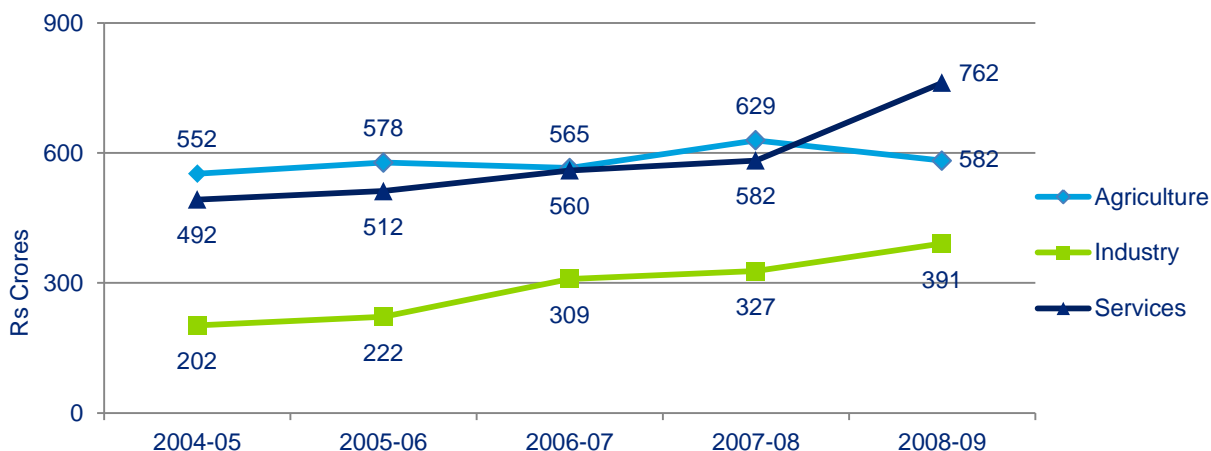
The economy of Bastar has registered a CAGR of about 8.6% (estimated at constant prices, 2004-05) between 2004-05 and 2008-09 and grown from Rs. 1246.6 cr to Rs 1734.6 cr¹⁵¹. The district recorded a lower growth as compared to the state growth of 9.6% over the same period.

As per the analysis, in 2008-09, Bastar district contributed about 2.5% in the state economic activity and was ranked 11th in Chhattisgarh in terms of economic activity.

The economy of Bastar district is pre-dominantly Services sector based, with its share in GDDP being 43.9% in 2008-09. This is followed by Agriculture sector with 33.6% share in the GDDP and the Industry sector at a share of 22.5%. The Industry and Services sectors have grown consistently over the period 2005-09. The Industry sector has shown the highest growth rate in the district over the period 2005-2009 with a CAGR of 18% followed by Services and Agriculture sectors which registered a CAGR of 11.5% and 1.3% respectively.

The sector-wise GDDP growth and distribution from 2005-2009 is given in the figures below:

Figure 91: Sectoral Share of GDDP, 2004-05 to 2008-09, Bastar



Source: Directorate of Economics and Statistics- Government. of Chhattisgarh (2004-05 base price); Deloitte Analysis

¹⁵¹ Directorate of Economics and Statistics-Chhattisgarh; Deloitte Analysis

Agriculture Sector

The contribution of Agriculture sector (agriculture, forestry & logging and fishing) to GDDP was 33.6% in 2008-09. Agriculture is the main contributor in the total output of the Agriculture sector contributing about 51% in the year 2008-09.

The tribal people of Bastar mostly use traditional methods of farming. Most of the farmers use wooden ploughs and bullock carts while the use of iron ploughs and tractors is negligible. The irrigated area (1.67%) and fertilizer use (4.6 kg/ha.) in the district are very less. All these factors lead to low productivity. However the district is fortunate in its water resources. Good rainfall and rapid run off due to the undulating terrain provides potential for rainwater harvesting.

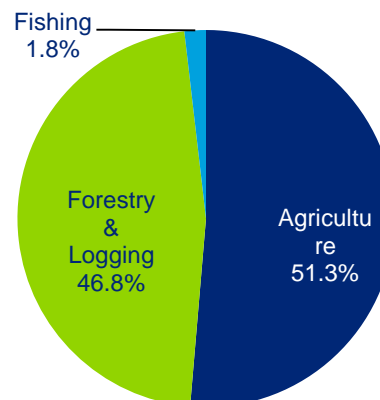
The main kharif crops grown in Bastar are paddy, Urad, arhar, jowar and maize while the Rabi crops include Til, Als, moong, mustard and gram. Being a rain-fed crop, rice is grown predominantly during kharif season, but the productivity of this crop is very low (8.53 qt/ha). Bastar is a NFSM district for pulses.

Collection and sale of forest produce and other forest-related work supplements meagre agricultural incomes. More than half of the district is covered by forests. The forests provide for people's consumption needs — fuel and firewood, medicines, food and drink, implements and housing materials. The forests of Jagdalpur area consists of Kusum (Lac), Imli, Mahua, Kusum (Oil seed), Karanj, Chironjee, Bachandi, Tikhur, Shahad, Aonla, Baheda, Dhawai, Satawar, Kalijeeri, Bel, Baibiding, Kalmegh, Malkangiri, Marorfalli. Fishing is also an important source of livelihood for the tribal which is done during the rainy season.

Industry Sector

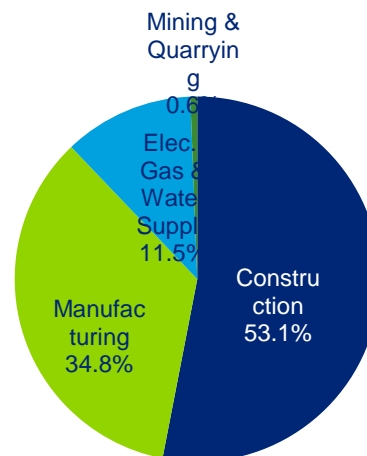
The Industry sector (mining & quarrying, manufacturing, construction, electricity, gas and water supply) contributed 22.5% to the GDDP in 2008-09. Construction is the major contributor within the Industry sector, with a sectoral share of about 53% in 2008-09. The total budgeted value for ongoing building and construction activities (building and roadwork) in Bastar for the year 2013-14 allocated at Rs. 271 crores shows the current focus of the district on the sector¹⁵².

Figure 92: Sub-sectoral break-up in Agriculture sector (2008-09), Bastar



Source: Directorate of Economics and Statistics- Government. of Chhattisgarh; Deloitte Analysis

Figure 93: Sub-sectoral break-up in Industry sector (2008-09), Bastar



Source: Directorate of Economics and Statistics- Government. of Chhattisgarh; Deloitte Analysis

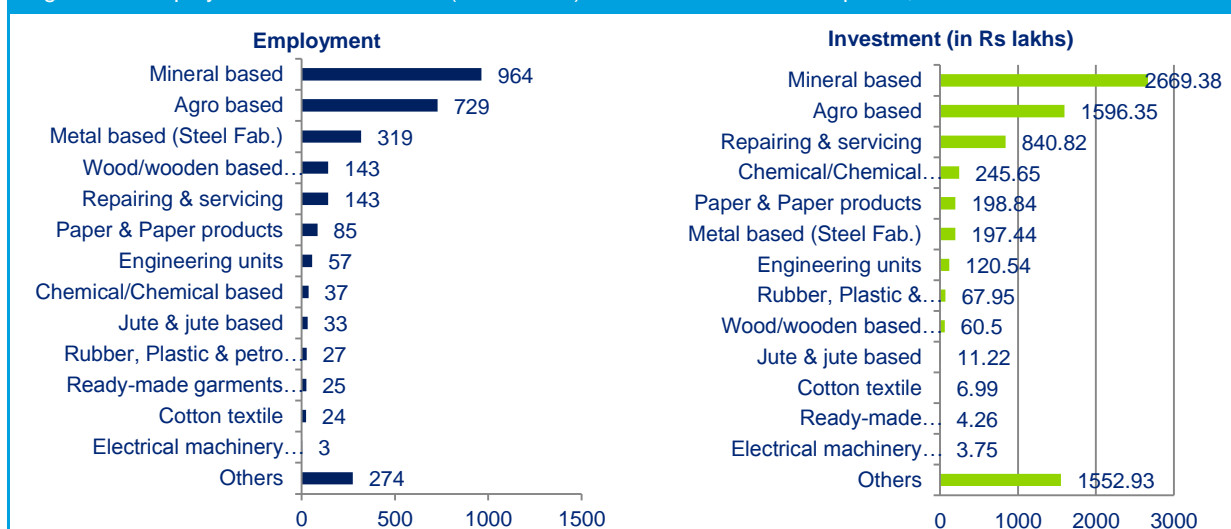
¹⁵² Chhattisgarh Public Works Department

Bastar is gradually developing its industries. The major industries of the district include sponge iron, iron-ore crusher, stone crusher, rice mill, steel fabrication, steel structure, flour mill, cement bricks, pole industry, cattle feed, agricultural equipment, tractor trolley manufacturing and tiles industry.

Bastar is famous for its exquisite handicrafts. Bastar Art, practiced by the tribals of the Bastar region is known all over the world for its unique artifacts. These artifacts usually depict the rural lifestyle of the tribal community. The art forms practiced in Bastar are Corundum craft, Cowrie, items made from Bamboo, Bell Metal, Wood Carving, Wrought Iron and Sisal/Jute. However the district specializes in the preparation of items from the Dhokra Handicraft, which gives the impression of sheer dexterity of the artisans of this region. The artifacts prepared use the cow dung, paddy husk and red soil in the preparation, beeswax being the most important one. There are around 60 handicraft clusters in the district, which is the second highest in the state after Kanker¹⁵³. A bamboo production project with an investment potential of around Rs. 5 crores is coming up in Jagdalpur.

The investment in micro and small enterprises in the district is captured in the figure below. The key industries in the MSME sector include mineral based and agro based industries.

Figure 94: Employment and Investment (in Rs lakhs) in micro and small enterprises, Bastar*



Source: Ministry of Micro, Small and Medium Enterprises, Government of India, 2011-12

*Data is for undivided Bastar(including Kondagaon)

Bastar is not rich in minerals. Small deposits of Iron-ore are found in Chhote Dongar region of the district. Besides, there are small pockets of limestone, marble stone and bauxite deposits in the district. Minor minerals like stone, Murram etc. are also found. The total mineral revenue receipt of the district in 2012-12 is given below:

Table 81: Mineral Revenue Receipt (Rs. Lakhs) in 2012-13, Bastar

Major Minerals	Minor Minerals	Others	Total
32.2	808.7	71.8	912.7

Source: Directorate of Geology & Mining, Chhattisgarh

¹⁵³ Chhattisgarh Handicrafts Sector Profile, Chhattisgarh Handicrafts Sector Meet, 2012

Services Sector

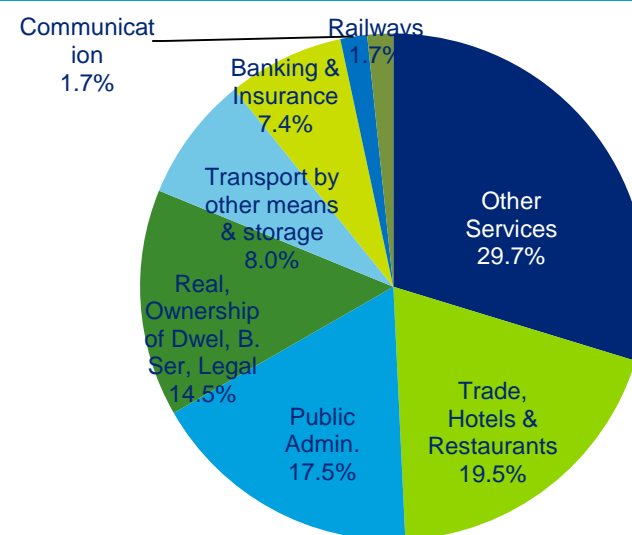
The Services sector contributed around 43.9% of the GDDP in the year 2008-09. The key contributor to the sector (29.7%) is other service which includes education and skill development, healthcare services, social work and select informal sectors. It is followed by trade, hotels and restaurants (19.5%), Public administration (17.5%), Real estate (14.5%) and Transport by other means & storage (8.0%).

Bastar is predominantly a forest region. It is blessed with exceptional scenic beauty that attracts nature lovers to explore the forests, waterfalls, wildlife, ancient temples, tribal dances and music. Bastar Palace, Bharamdeo Temple, Danteshwari Temple, Kanger Valley

National Park, Bairamgarh Wildlife Sanctuary, Kutumsar Cave, Kailash Cave, Chitrakoot Falls, Tirathgarh Falls, Anthropological Museum are some of the important tourist attractions in Bastar and its neighboring districts. The district headquarter, Jagdalpur is well connected by road to all major cities of the state as well as to other states also. The national highways passing through the district are NH 43 (connecting Natavalasa in Andhra Pradesh and Raipur in Chhattisgarh), NH 221 (connecting Jagdalpur to Vijayawada in Andhra Pradesh), NH16 (connecting Jagdalpur to Nizamabad in Andhra Pradesh).

With a CAGR of about 16.6% and 19.8% over the period from 2004-2009, communication and banking & insurance sectors respectively were among of the fastest growing sectors in the district, though their absolute sizes are small.

Figure 95: Percentage contribution to the Services sector (2008-09), Bastar



Source: Directorate of Economics & Statistics- Government. of Chhattisgarh; Deloitte Analysis

Key Observations:

- ♦ The economy of Bastar district is pre-dominantly Services sector based, with its share in GDDP being 43.9% in 2008-09. This is followed by Agriculture sector with 33.6% share in the GDDP and the Industry sector at a share of 22.5%.
- ♦ The Industry and Services sectors have grown consistently over the period 2005-09. The Industry sector has shown the highest growth rate in the district over the period 2005-2009 with a CAGR of 18% followed by Services and Agriculture sectors which registered a CAGR of 11.5% and 1.3% respectively.

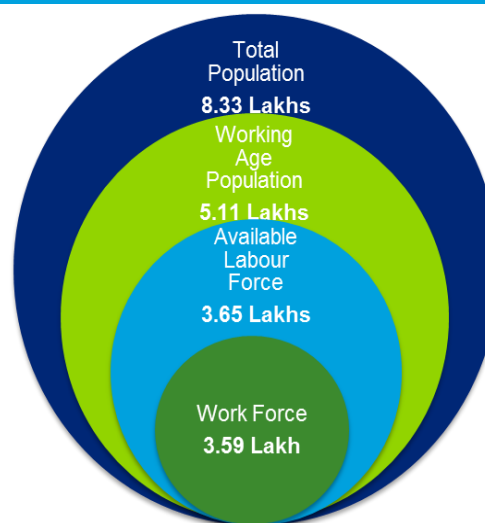
4.4.4 Employment Profile

With a total population of 8,33,318 in the year 2011, Bastar accounted for around 3.3% of the state's population.

The adjacent figure depicts the estimated workforce in Bastar in the context of the total population of the district. Out of the total population of 8.3 Lakhs, the working age population (between 15-59 age group) constitutes nearly 61.3%.

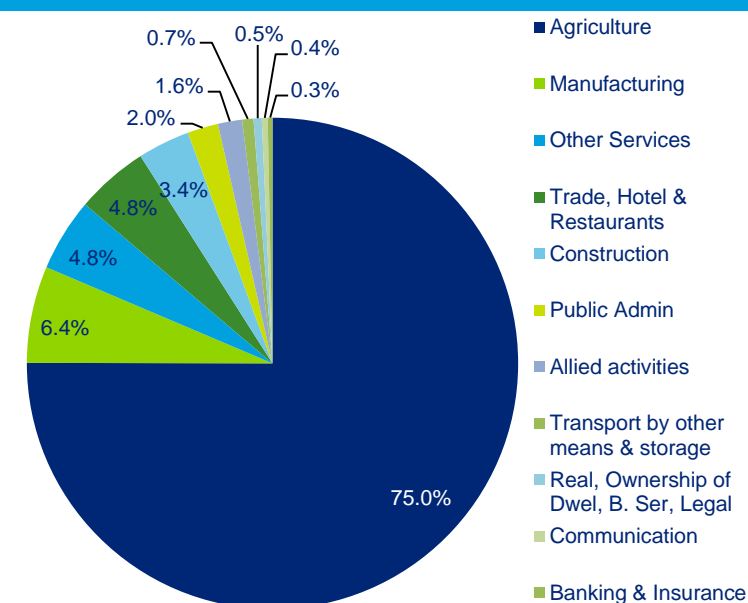
Based on the labor force participation rate and the worker participation rate estimates for the state, the available labour force is estimated to be 3.65 lakhs, and the workforce is estimated at 3.59 lakhs or nearly 70% of the working age population. Almost three-fourth of the workforce in the district is engaged in Agriculture sector in 2011, followed by the Services sector which employs around 13.7% of the total workforce and Industry sector which employs 9.8% of the total workforce.

Figure 96: Total Workforce in Bastar (2011)



Source: Census 2011 and Deloitte Analysis

Figure 97: Sector wise employment in Bastar (2011)



Source: Census 2011 and Deloitte Analysis

The sector-wise employment of Bastar for the year 2011 has been shown in the adjoining figure. Agriculture contributed to approximately 75% of the total employment in the district. Manufacturing was the second highest employer in the district employing around 6.4% of the total workforce followed by other services (4.8%), trade, hotels and restaurants (4.8%) and construction (3.4%). There exists disparity between the sectoral contribution to GDDP and the proportion of people employed for the sectors. Sectors like trade, hotels and restaurants and other services show very little proportion of employment when compared to the GDDP contribution as opposed to

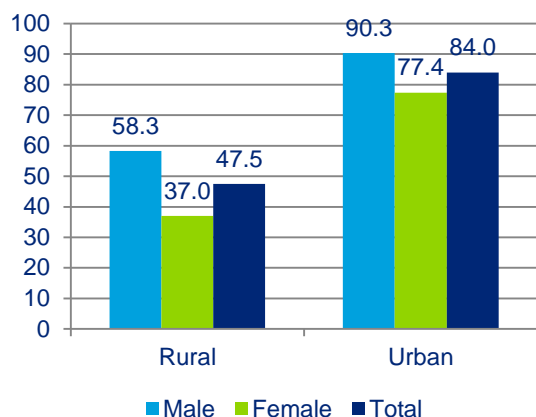
sectors like Agriculture which employs the bulk of people while contributing much less to the GDDP.

The top five sectors in the district in terms of employment account for around 94% of the total employment of the available workforce in Bastar in 2011.

4.4.5 Education Infrastructure

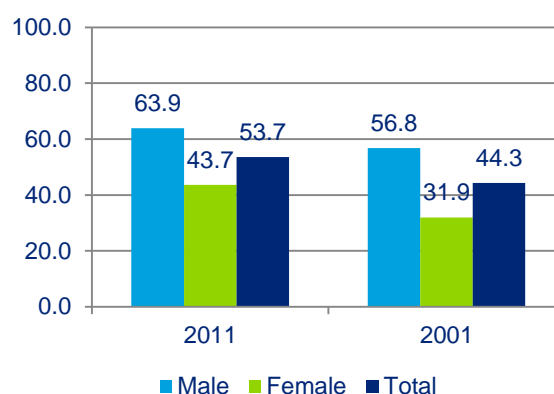
The literacy rate in Bastar has significantly improved from 44.3%¹⁵⁴ in 2001 to 53.7%¹⁵⁵ in 2011. However it is much lower than the state's literacy rate of 70.3% as well as the all-India literacy rate of 73%. In 2011¹⁵⁶, male and female literacy rates stood at 63.9% and 43.7% respectively, both figures registering an improvement compared to the 2001¹⁵⁷, figures of 56.8% and 31.9% respectively. However, there still exists a significant disparity between the male-female and urban-rural literacy rates.

Figure 98: Literacy rate 2011 (by residence), Bastar



Source: Census of India 2011

Figure 99: Literacy rate (by Gender), Bastar



Source: Census of India, 2001 and 2011

* Data for 2001 is for undivided Bastar

School Education

Bastar has 1790 primary schools, 751 upper primary schools, 72 secondary schools and 95 higher secondary schools¹⁵⁸. Net enrolment ratio (NER) at the upper primary level (47.7%) is considerably lower than the state NER of 67.8%.

Table 82: Status of school education infrastructure in Bastar, 2013

#	Educational Statistics	Units in Bastar	Units in Chhattisgarh	% Share of District in State
1	Primary School	1790	35588	5.0%
2	Upper Primary School	751	16442	4.6%
3	Secondary School	72	2632	2.7%
4	Higher Secondary School	95	3548	2.7%
5	NER (Primary) (2010-11)	100%*	98.0% ¹⁵⁹	-
6	NER (Upper Primary) (2010-11)	47.7%*	67.8%	-

Source: District Report Cards, DISE

* Data is for undivided Bastar (including Kondagaon & Narayanpur)

¹⁵⁴ Data is for undivided Bastar (including Narayanpur and Kondagaon)

¹⁵⁵ Census 2011; Deloitte Analysis

¹⁵⁶ *ibid.*

¹⁵⁷ Data is for undivided Bastar (including Narayanpur and Kondagaon)

¹⁵⁸ District Collectorate Office, Kondagaon

¹⁵⁹ Data is for 2008-09

Vocational Education

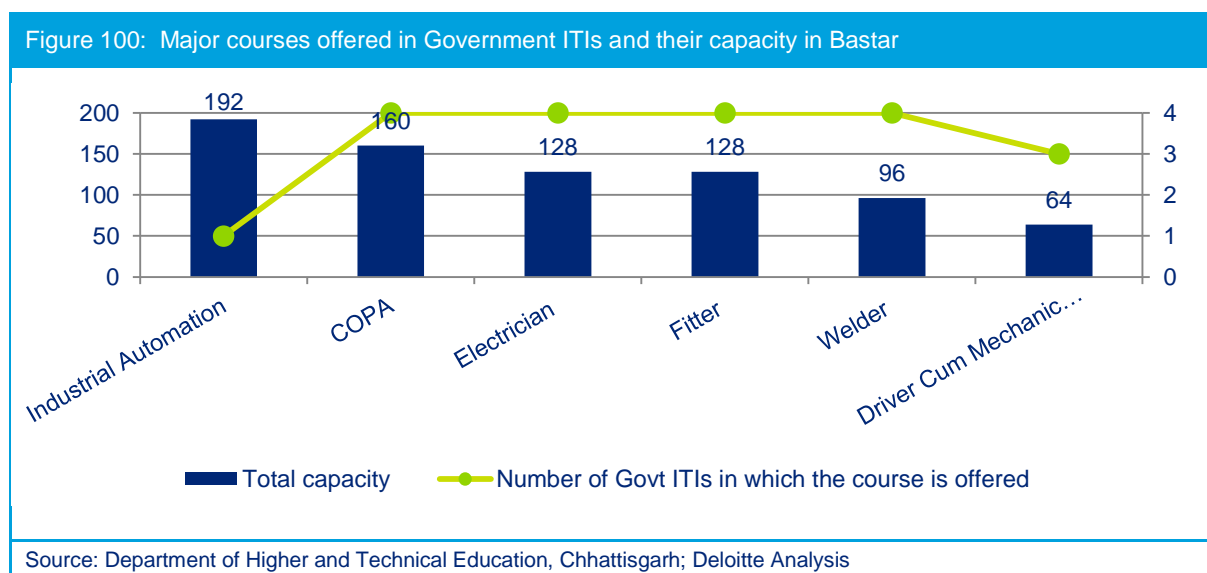
For vocational training, Bastar has a total of 6 ITI's in the district, of which, 4 are Government Industrial Training Institutes and 2 are Private Industrial Training Institutes. There is no woman ITI in Bastar. The total capacity of the ITIs in the district is 1304. The capacity of the Government ITIs is 1000 while that of the Private ITIs is 304. Trades like Electrician, Industrial Automation and Fitter have the maximum units affiliated amongst all the ITIs. The number of courses available in the Government and Private ITIs and their capacity are listed in the table below:

Table 83: ITIs in Bastar and their capacity

Name of ITI	Number of courses offered	Total Units affiliated	Total Capacity
Government Industrial Training Institute, Bastar	16	36	568
Government Industrial Training Institute, Jagdalpur	5	9	144
Government Industrial Training Institute, Bhanpuri	5	9	144
Government Industrial Training Institute, Lohandiguda	5	9	144
Bhabha Private ITI	2	7	112
Agrasen Industrial Training Centre, Jagdalpur	1	12	192
Total	16	82	1304

Source: Department of Higher and Technical Education, Chhattisgarh; Deloitte Analysis

The major courses offered in the ITIs and their capacity in Bastar is given in the figure below:



According to the Chhattisgarh State Skill Development Mission Website, as of 12th March, 2014, Bastar has a total of 109 Vocational Training Providers (VTPs) under which there are 10,460 registered beneficiaries.

The following table highlights the courses offered in vocational education, which currently meet requirements of about 12 sectors.

Table 84: Courses offered in vocational education, Bastar

Sector	ITI trades and Units affiliated	Courses Offered by VTPs
Auto and auto components Electronics and IT hardware Chemicals and pharmaceuticals	Electrician(24), Fitter(11), Mechanic and machinist (6), Welder(8), Industrial Automation (12)	Automobile, Electrical, Electronics, Fabrication, Automotive Repairs, Production and manufacturing
IT and ITES Tourism, hospitality and travel Organized retail Media and entertainment Banking, financial services and insurance	Computer Operator and Programming Assistant(8), Stenography(3), Driver cum mechanic (4)	ICT, Soft skill, Banking & Accounting, Hospitality, Printing
Textiles and clothing		Textile sector, Garment making, Sericulture, Textile silk
Building, construction and real estate Construction material and building hardware Furniture and furnishing	Carpenter(1), Draughtsman(Civil)(2),	Construction, Rain water Harvesting, Renewable Energy
Unorganized sector (particular reference to agriculture, security, plumbing, domestic worker, foundry, etc.)	Wireman(2),	Refrigeration & Air conditioning, Beauty culture and hair dressing, Jute Work, Bamboo Work, Wood Work, Agriculture, Animal husbandry
Source: CSSDA Website		

The following table highlights the NSDC partners present in Bastar as of January 2014 and the courses offered by them.

Table 85: NSDC partners present in Bastar

Name of Partner	Sectors in which course is offered	Courses offered
AISECT	IT or software	<ul style="list-style-type: none"> ♦ Diploma in Computer Applications (DCA) ♦ Post Graduate Diploma in Computer Applications (PGDCA) ♦ Diploma in Computer Programming and Applications (DCPA)
	ITES-BPO	<ul style="list-style-type: none"> ♦ Diploma in Computer Applications (DCA) ♦ Post Graduate Diploma in Computer Applications (PGDCA) ♦ Diploma in Computer Programming and Applications (DCPA)
Source: NSDC		

Higher Education

The status of higher education in Bastar is not very promising. Out of a total 590 colleges in the state, only 15 colleges are present in the district of Bastar indicating the district's share in the higher education space of the state at just 2.5%. This is lower in comparison to the share of population of Bastar to the state (3.3%). The district has a medical college viz., Government Medical College, Jagdalpur (2006-07) and one technical college viz. Government Technical College, Jagdalpur. Bastar University which is a

state University is situated in Jagdalpur. Besides these, there is a Government Girls' Polytechnic in Jagdalpur. The break-up of the number & capacity of higher education institutes in Bastar is given below.

Table 86: Number and Capacity of Higher Education infrastructure in Bastar

#	Colleges	Number	Estimated Capacity*
1	Arts, Science and Commerce	6	-
2	Medical	1	50
3	Nursing	4	210
4	Teacher Education	1	-
5	Technical	1	240
6	Agriculture	2	84
	TOTAL	15	-
*Source: University/College websites			

Key Observations:

- ♦ The share of Bastar in the higher education space of the state is just 2.5% which is lower in comparison to the share of population of Bastar to the state (3.3%).
- ♦ There is 1 University, 1 medical college and 1 Technical College in the district. Additionally, there are 6 ITI's and 109 VTPs active in the district.

4.4.6 Youth Aspirations

Youth population constitutes the most important demographic section for a district from a skills development perspective. In the process of capturing the aspirations of the youth population in Bastar, focused group discussions were held with youth from educational institutions as well as residing in rural areas to understand their concerns, areas of interest and future dreams and goals. The FGD in Bastar was conducted at the Gram Panchayat Bhavan, Jagdalpur. 55% of the respondents were in the age group 15-20 while 41% of them were between 21-25 years. Remaining respondents were 26 years and above. The educational qualification of about 95% respondents was from high school level or below while the remaining 5% of them were graduates and above. The key observations about aspirations of the youth of the district are highlighted below.

Table 87: Youth Aspiration – Key Responses – Bastar

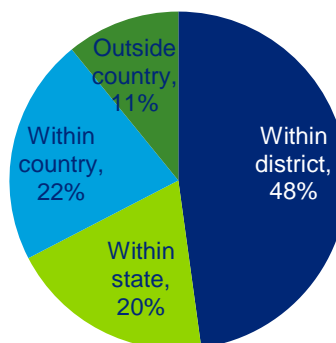
Parameters	Responses
Job Preference	<ul style="list-style-type: none"> Most of the youth preferred Government jobs over private jobs due to the job security offered in a Government job. They also preferred regular/ salaried employment over self-employment.
Preferred Course	<ul style="list-style-type: none"> Women are interested in courses like tailoring & sewing, beauty parlor training, micro-industries like papad making, hawan samagri etc. Men in the district are interested in self-employment activities like mobile repairing, motor mechanic etc.
Migrating for job	<ul style="list-style-type: none"> Majority of the youth (esp. women) want to work within the district.
Salary Expectations	<ul style="list-style-type: none"> Average monthly salary expectation of youth is Rs 10,000/- and above depending on the qualification.
Areas of concern/ aspirations- Infrastructure	<ul style="list-style-type: none"> Youth reported poor quality of infrastructure in the institutes in terms of building, playgrounds, washrooms, etc. The inadequacy of computers in schools and non-functioning of those available was also highlighted.
Areas of concern/ aspirations-Course Curriculum	<ul style="list-style-type: none"> Youth expressed the need for resourceful and good teachers. Youth feel that institutes should focus more on soft skill and language training besides technical know-how, and it is critical for getting a good job. Local industries should train people on apprenticeship/ intern model to improve job prospects. There should be awareness generation camps for training programmes.
Suggestions given by youth	<ul style="list-style-type: none"> The youth expect Government to take up initiatives to improve college infrastructure. The Government should open new institutes with more trades. There should be more tie-ups between industries and institutions. There should be more courses, practical classes, resourceful, efficient and regular teachers available in the institutes.

A sample survey was conducted with youth at gram panchayat level & those coming out from various educational institutions (Government & private) to understand & capture their aspirations. The findings are presented below:

Job preference by youth

The majority of the youth we surveyed (48%) **prefer to get a job within their home district** as is evident from the adjacent figure. Approximately 20% of them preferred for job within their state of residence. The survey highlights the fact that around **68% of the youth surveyed wanted to get a job within Chhattisgarh** thus demanding and necessitating the creation of suitable positions and absorption capacity for them in the employment market. The survey reveals that not many youth are interested to migrate out of state in search of jobs.

Figure 101: Job Preference by Youth

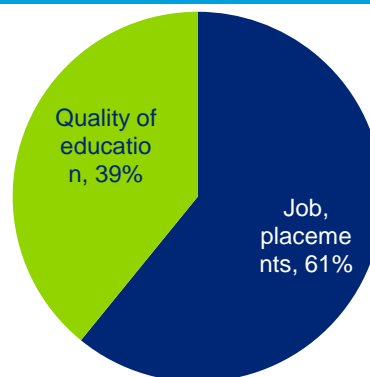


Source: Deloitte Analysis

Parameter for Institute Selection

A majority of the students surveyed (61%) at the gram panchayat level quoted the **job opportunities of the educational institution** as their prime parameter while selection of an institute for higher education, while 39% of the students looked at the quality of education offered by the institute and its reputation while selecting an institute for higher education.

Figure 102: Parameter for Choice of Institute



Source: Deloitte Analysis

Youth Perception Mapping

Youth perception mapping was undertaken to understand their level of satisfaction with either their current institute or their experience and feedback on the available educational infrastructure. The results are summarized below:

Youth perception mapping was undertaken to understand their level of satisfaction with either their current institute or their experience and feedback on the available educational infrastructure. The results are summarized below:

Low satisfaction with placement / jobs available post training: Almost all the students surveyed felt the **job opportunities available to them post training were not satisfactory**. They shared their expectation of being provided with a placement opportunity by the institute or facilitate a tie-up with nearby companies to give them an experience of hands on training.

Non-availability of latest technologies and equipment for training: **96% of the students surveyed expressed their dissatisfaction** with the availability of latest technology & equipment for training in the institute. They felt the lack of equipment as a major constraint for their knowledge enhancement and

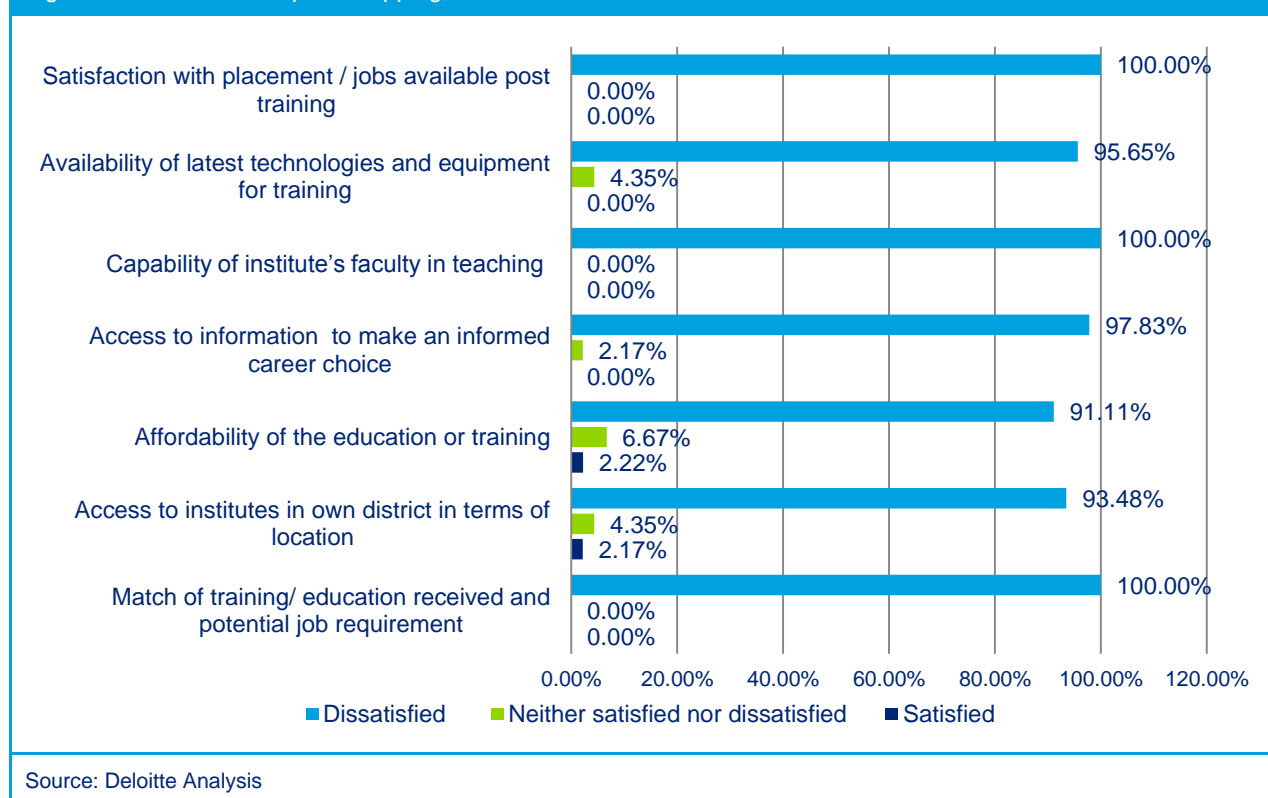
appropriate level of skill development. They demanded that the institutes should be adequately equipped and upgraded with latest technology.

Dissatisfaction with capability of institute's faculty in teaching: Almost all the students surveyed feel the quality of teaching by faculty is not satisfactory and needs significant improvement. They also demanded the number of faculty to be increased as per the demand of the course and improvement of the quality of faculty in the institute.

Need for better access to information to make an informed career choice: Majority of the students were dissatisfied as far as access to information to make an informed career choice is concerned. 98% of them felt that they did not get proper accessibility to information to make an informed career choice. This showcases the importance of having career counseling to the potential students either at the school level or at the respective vocational institutes.

Affordability is as high a concern as quality and value for money in education or training: Majority of the students (around 91%) felt that the fees charged by the education/ training institute were a barrier for them and considered it to be unaffordable for them. They raised their concern that the quality of the training programmes offered should be commensurate with the fees charged.

Figure 103: Youth Perception Mapping, Bastar



Access to institutes is an issue in rural areas: Around 94% of the students surveyed expressed their dissatisfaction with the accessibility of the educational institutes in terms of location. They felt the educational institutes to be inaccessible in terms of location and majority of them were rural youth.

Dissatisfaction with the alignment of training/education received with job requirements: Almost all the students surveyed feel that the training/education currently provided by the educational institutes in

the district is not in alignment with the job requirements of the business. This highlights the very important fact that the students believe the education or training received is not beneficial for them during their job

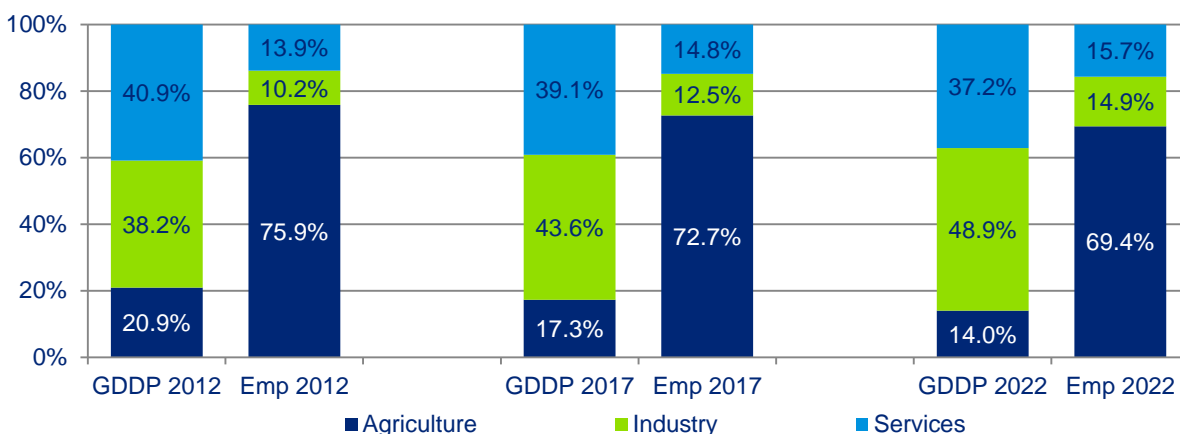
Key Observations:

- ♦ Government Jobs were preferred over private; the expected salary range of youth is above Rs. 10,000 depending on the qualification.
- ♦ Most of the students, especially girls preferred jobs within the district.
- ♦ Women are interested in courses on tailoring & sewing, beauty parlor training, micro-industries like papad making, hawan samagri etc.
- ♦ Men in the district are more interested in self-employment activities like mobile repairing, motor mechanic. Need for updating course content & creating linkages for placement was strongly expressed
- ♦ Improving institute-industry interface to ensure better apprenticeship training was emphasized
- ♦ Need to address Infrastructure gaps - particularly renovating the buildings, proper toilet facilities and laboratory with latest computers, tools and equipment was expressed
- ♦ Youth are not aware about the different Government initiatives on skill development
- ♦ The need for career counseling prior to admissions was strongly expressed by the youth

4.4.7 Skill Gap Assessment

The working age population (15-59) constituting 61.3% of total district population in 2011, is expected to increase to 65.1% by 2022. Demand for jobs is expected to increase leading to the need for job creation. Similarly, to reap this demographic dividend, supply of labour must be adequately skilled.

Figure 104: Comparison of Sectoral share in GDDP & Employment, Bastar



Source: Deloitte Analysis

The above figure also depicts the significant disparity in the structures of economy and employment in the district. Based on our analysis and primary interactions, the Agriculture sector is expected to be an important sector in terms of providing employment in the district and would account for the largest share of workforce over the decade. If the trends in employment continue, in 2021-22, the share of employment across the Agriculture sector is expected to decline to 69.4% as compared to 75.9% in 2012.

The Industry and Services sector employment share are estimated to increase 14.9% and 15.7% respectively, as indicated in the table above. This trend appears to be in line with the national trend as well where people are moving out of the Agriculture sector and moving into the Industry and Services sectors respectively.

Incremental Human Resource Demand

As per the methodology, the total incremental demand for manpower in Bastar by 2022 is expected to be around 0.82 lakhs. Following table provides the break-up of the incremental demand for manpower in Bastar as per skill level required.

Table 88: Estimated Incremental Human Resource Demand ('00s) by Skill Level in Bastar

	2012-17	2017-22	Total
Skilled	60	68	128
Semi-Skilled	120	137	257
Minimally Skilled	212	218	430
Total	392	423	815

Source: Deloitte Analysis

Some of the key trends observed on the demand side include

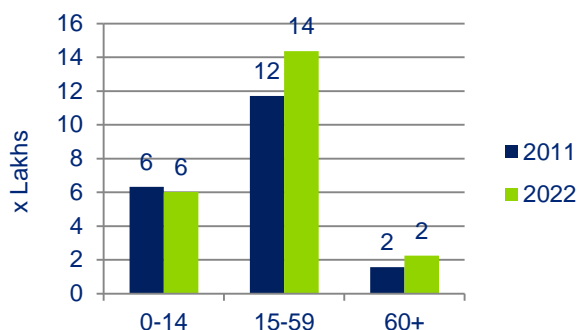
- ♦ *Agriculture will be the largest incremental demand generating sector (34.0%) with demand largely in the minimally skilled level.*
- ♦ *Within the Industries sector, the greatest incremental demand on employment is expected to come from the building and construction sector (16.4%) followed by manufacturing (mineral/ metal based) (8.3%) and handloom and handicrafts (5.8%).*
- ♦ *Within the Services Sector, trade (retail + wholesale) is expected to contribute about 5.8% of the total incremental demand for employment, followed by Public Administration (3.4%).*
- ♦ *Analysis of formal and informal employment indicates that the incremental demand for manpower in formal sector would come mainly from Building and Construction, BFSI, Public Administration, Education and Skill Development services and Trade (retail + wholesale).*
- ♦ *Majority of demand for incremental manpower in the informal sector is projected to come from Agriculture, Construction, Manufacturing (metal/mineral based), Handloom and handicrafts, Food Processing, and food processing sectors.*

Table 89: Incremental Human Resource Demand ('00) by Skill Level in Bastar- Key Sectors

Table 66: Incremental Human Resource Demand (in '000) by Skill Level in District - Key Sectors									
#	Sector	2012-17				2017-22			
		Skilled	Semi-skilled	Minimally Skilled	Total	Skilled	Semi-skilled	Minimally Skilled	Total
1	Agriculture	4	14	124	143	4	13	117	135
2	Building & construction	9	24	27	60	11	30	33	74
3	Manufacturing (mineral/ metal based)	6	19	6	32	7	22	7	37
4	Handloom and Handicrafts (including Furniture & Furnishing)	3	15	8	26	3	18	9	30
5	Trade (Retail + Wholesale)	3	12	8	23	4	12	8	24
6	Food processing	2	5	11	18	2	6	12	21
7	Public Administration	8	3	2	14	9	4	2	14
8	Others	24	27	25	77	28	33	29	91
Overall Incremental Demand							815		
Source: Deloitte Analysis									

Incremental Human Resource Supply

Figure 105: Age wise distribution of population, Bastar 2011 and 2022 (projected)



Source: Census 2011 and Deloitte Analysis

The population of Bastar is expected to increase from 8.3 lakhs in 2011 to 9.7 lakhs in 2022. The adjacent figure provides the current and projected population across various age groups. As per the analysis, the number and proportion of children in 0-14 age group is projected to fall by about 0.02 lakh children, while the number of persons in the working age group is expected to increase by 1.23 lakh during the same period. This represents a potential demographic dividend for the district with a large increase in the employable population. On the other hand, it presents a huge challenge for the state to make available higher education and skill development facilities as well as ensure productive employment opportunities

for its population.

As per the methodology, the estimated total incremental manpower supply in Bastar over the decade (2012-2022) will be about 1.20 lakhs. Incremental manpower supply from various educational and vocational training institutes in the district can be further classified into skilled, semi-skilled and minimally skilled as per the educational qualifications.

Table 90: Estimated Incremental Human Resource Supply ('00s) by Skill Level in Bastar

	2012-17	2017-22	Total
Skilled	50	53	103
Semi-Skilled	187	209	396
Minimally Skilled	353	348	700
Total	590	610	1199

Source: Deloitte Analysis

Some of the key trends observed on the supply side include

- Proportion of incremental supply of minimally skilled manpower is 58.4%, compared to 33% of semi-skilled and 8.6% of skilled manpower (2012-22)
- Out of a total 590 colleges in the state, 15 (2.5%) are in the district of Bastar. However, this is less in comparison to the proportion of the district's population in the state.
- Bastar has 6 out of 180 ITIs in the state and 109 VTPs accounting for a high supply of semi-skilled workforce.
- Impact of Migration is expected to be inward and accounts to around 2.2% of the total supply. According to primary interactions, inward migration is both in minimally skilled and semi-skilled jobs in building & construction and manufacturing sectors

Incremental Demand Supply Gap

During the period 2012-22, the incremental demand supply gap of the district (across all sectors mentioned above) is expected to be a surplus of 0.38 lakh people. There is assessed to be an excess demand across skilled segment with an excess supply expected in the semi-skilled and minimally skilled segments. This means the rate of creation of employment in the district has to be augmented with suitable government initiatives in order to absorb the supply of workforce projected to enter the job market. Moreover, it also indicates a potential for skilling the semi-skilled workforce and shift them to the more productive job roles assumed at the higher skill level.

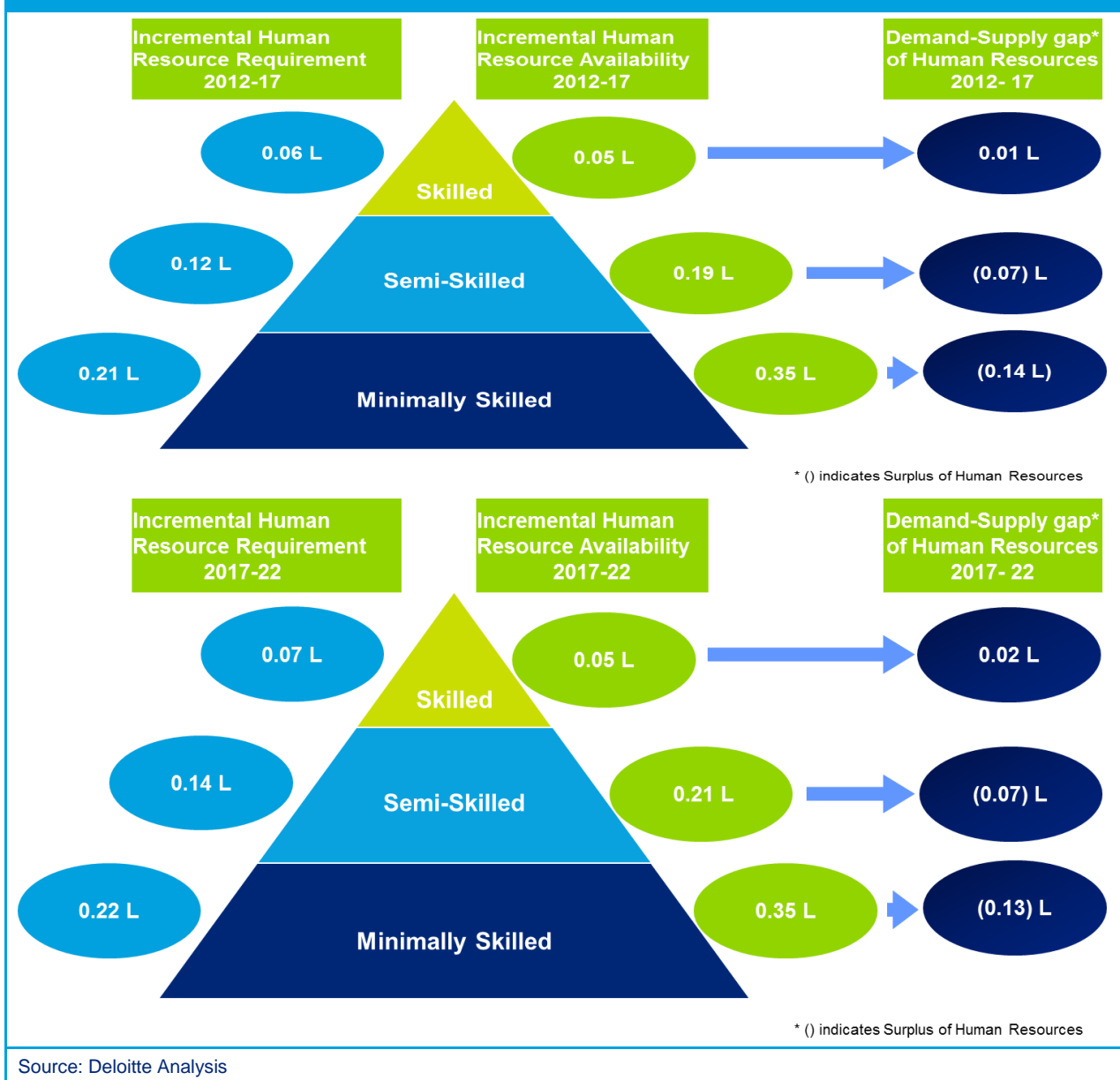
Table 91: Projected Demand Supply gap (in '00s) by skill levels in Bastar

#	District Skill Gap	2012-17				2017-22			
		Skilled	Semi-skilled	Min. Skilled	Total	Skilled	Semi-skilled	Min. Skilled	Total
1	Incremental HR Requirement (Demand)	60	120	212	392	68	137	218	424
2	Incremental HR Availability(Supply)	50	187	353	590	53	209	348	610
3	Demand-Supply Gap	9	(66)	(141)	(198)	15	(72)	(129)	(186)
	Overall Demand-Supply Gap				(384)				

Source: Deloitte Analysis

During the period 2012-22, the incremental manpower demand supply gap of the district (across all sectors mentioned above) is expected to be surplus of about 0.38 lakh people with the excess supply across all skill segments as shown in the adjoining figure.

Figure 106: Incremental Demand-Supply Gap (in lakhs) , Bastar



Some of the key trends observed on the demand-supply gap include

- ♦ The composition of the human resource demand supply gap over the two different time periods i.e. 2012-17 and 2017-22 is anticipated to remain the same.
- ♦ The excess demand in the skilled segment is expected to continue over the decade and increase in future. This is in line with growth of demand for skilled workers over the years.
- ♦ The trend of excess supply is likely to continue in the semi-skilled segment across both the periods. However, in terms of educational qualification, approximately 30% of the total semi-skilled workforce is estimated to be class 12 pass outs having undergone no job/skill specific training. This indicates

that most of the surplus supply of semi-skilled labor is actually untrained, and if only outputs of semi-skilled workers from ITI/VTPs are considered, there is a supply deficit in that category also. In addition, primary interactions have raised **employability & deficit in specific jobs/ skills amongst the workers** as major concerns despite high overall supply in semi-skilled category. These have been captured in the qualitative skill gaps section below.

- ♦ As indicated in the figures, the excess supply of minimally skilled human resources is estimated to reduce owing to the greater focus of the state on improving school education, and providing an impetus in the skill development space.

Qualitative Skill Gaps

The qualitative skill gaps that were highlighted during our primary interactions with industry at Bastar are given in the table below.

Table 92: Qualitative Skill Gaps

Sector	Level	Skill Gap
Agriculture	Tractor operator and mechanics/ Electricians/ Mechanics for repair & maintenance of agricultural tools & implements	♦ Sufficient training to address tool & equipment failures like motor pump failure, gear damage, tyre puncture etc.
	Project Managers/Engineers	♦ Knowledge of design and tools such as AutoCAD etc. ♦ Knowledge of green/eco-building design ♦ Project Management and People Management Skills ♦ Knowledge of appropriate safety practices
Building & construction	Supervisors: plumbing, electrical, carpentry, masonry, drilling	♦ Skills in civil- operations of ready mix m/c, earth movers ♦ Basic repair and maintenance ♦ Exposure to right methodology in construction specific skills like lining, leveling etc. ♦ Site safety concepts and procedures
	Workmen: plumbing, electrical works, carpentry, masonry, drilling	♦ Basic operating skills related to relevant category ♦ Improved/ better quality in finishing ♦ Site safety concepts and procedures ♦ Ability to understand & follow instructions/ manuals
Manufacturing (mineral/ metal based)	Manager/Engineer	♦ Project Management and People Management Skills ♦ Knowledge of appropriate safety practices
	Supervisors	♦ Interpersonal and communication skills ♦ Understanding of quality concepts ♦ Understanding of product specifications
	Workmen/operators	♦ Understanding of discipline, industrial rules, work related procedures etc. ♦ Ability to carry out basic troubleshoot in case of machine breakdown
Trade (Retail + Wholesale)	Store/Department Manager	♦ Understanding of cross functional activities in the store esp. logistics, marketing and merchandising ♦ People management skills ♦ Vendor Management
	Billing Associate/ Accountants/ Computer operators	♦ Knowledge of transaction processing software and cash management ♦ Knowledge of tally/accounting practice
	Sales/Customer Service personnel	♦ Product specific knowledge ♦ Customer service and Inter personal skills

4.4.8 Recommendations

Growth Opportunities

In the context of the current economic profile and proposed investments of the district, the demand for human resources at various skill levels has been analyzed. The observations have been augmented by primary interactions with industry & industry association representatives in the district and government officials at the state and district level. Based on our analysis and considering factors like high growth and employment potential, priority sector for the state government, investment trends, etc., the following sectors/industries have been identified with future growth opportunities for employment and subsequently, skill development in Bastar.

Table 93: Key Growth Sectors - Bastar

#	Priority Sectors	Growth opportunities in skills development and employment
1.	Agriculture	<ul style="list-style-type: none"> Agriculture currently provides employment to around 74% of the workers in the district. It is anticipated to be the residual & largest incremental employer in the district accounting for around 34% of the total incremental demand for manpower. Cultivation of paddy along with production of different varieties of pulses is expected to employ a significant section of the workforce.
2.	Building & construction	<ul style="list-style-type: none"> Construction is another major contributor in the district economy which is expected to grow at around 10.6% (2012-22). The total budgeted value for ongoing building and construction activities (building and roadwork) in Bastar for the year 2013-14 is allocated at Rs. 271 crores. Building and construction is projected to be one of the chief employers in the district with approximately 16.4% of the total incremental demand for employment estimated to come from the sector.
3.	Manufacturing (mineral /metal based)	<ul style="list-style-type: none"> Manufacturing sector is currently the third largest sub-sector and is expected to grow at approximately 12.1% over the period 2012-22. This sector will have an estimated incremental demand for around 0.07 lakh workers over the decade (2012-22), comprising around 8.3% of the total incremental demand for manpower. The major industries of the district include sponge iron, iron-ore crusher, stone crusher, steel fabrication, steel structure, cement bricks, tractor trolley manufacturing and tiles industry. These industries are proposed to contribute to the incremental demand of workforce in the district.
4.	Manufacturing – Furniture & Handicrafts	<ul style="list-style-type: none"> Handloom is one of the major employment providers in the district accounting for 6.8% of the total incremental demand. Bastar is famous for its exquisite handicrafts. Bastar Art, practiced by the tribal of the district is known all over the world for its unique artifacts. There are 60 handicraft clusters in the district, which is the second highest in the state after Kanker. The bamboo production project with an investment potential of 5 crores coming up in Jagdalpur would further boost employment in the sector.
5.	Trade (Retail + Wholesale)	<ul style="list-style-type: none"> Handloom is one of the major employment providers in the district accounting for 5.8% of the total incremental demand. Due to the booming manufacturing industry, specially steel and power as well as growth in building and construction activities, trade of raw materials result in increasing manpower demand in this sector.

Source: Deloitte Analysis

Considering the economic and skill landscape of Bastar, the table below indicates the priority areas of focus for key stakeholders involved. These observations have been mainly derived from the growth

opportunities identified above and through primary interactions with industry and industry association representatives in the district along with inputs from the students, training institutes and government.

Table 94: Key Recommendations for Stakeholders - Bastar

Stakeholder	Priority Areas
NSDC	<p>NSDC can focus the efforts of its training partners in the key sectors identified in the district, viz.</p> <ul style="list-style-type: none"> ♦ Agriculture ♦ Building and Construction ♦ Manufacturing – (Mineral/metal based) ♦ Manufacturing – Handloom & Handicrafts/ Furniture & Furnishings
Private training providers	<ul style="list-style-type: none"> ♦ Since a majority of the population in the state is dependent on Agriculture, the private training providers should focus on training or providing extension support services in agricultural products processing, forestry and animal husbandry (including dairy & poultry) for the workers dependent on the sector. ♦ The training institutes should introduce/ substantiate multi-disciplinary courses in key sectors such as handloom and handicrafts, building & construction etc. ♦ There is a demand for more courses in building and construction. Additionally, courses in Agriculture and handloom & handicrafts/furniture & furnishings can also be explored.
Government	<ul style="list-style-type: none"> ♦ To improve upon the quality of education in the state, the government must mandate accreditation of colleges to initiate sustainable improvement in quality of education. ♦ The government can promote more colleges under PPP mode for training and graduating more students in high demand sectors. ♦ Owing to the dependence of the majority of population on agriculture, the government should focus on providing training in areas like agricultural products processing, vermicomposting & animal husbandry like dairy & poultry as additional source of income. ♦ For aiding enrolment in vocational courses, the government can facilitate registration exercise at each ITI's/SDI's/ DET offices/Employment Exchanges. ♦ The government should undertake aggressive marketing and trade promotion of the handicrafts in the state by facilitating participation of the artisans in fairs/exhibitions, branding of the products, providing infrastructural support for technological up-gradation of the manufacturing process and creation of common facility centres in the individual clusters. ♦ The Chhattisgarh Handicrafts Development Board should encourage formation of more handicraft clusters for the artisans of the district and provide handholding services to the individual clusters in terms of financial assistance & marketing services. The individual clusters may be linked to the NABARD/KVIC for loan sanction. The Chhattisgarh Handicrafts Development Board should also initiate more partnerships with TRIFED for marketing of the products prepared by tribals.
Industry	<ul style="list-style-type: none"> ♦ More industry interactions could be initiated in the Building & Construction, Manufacturing (mineral/metal based) and Handloom & Handicrafts/ Furniture & Furnishing sectors in the district ♦ Industry players should encourage training apprenticeships for trainees from institutes with reasonable stipend. ♦ Industry players should collaborate with private training providers/skill development institutes for identification of sector specific employable skills based on division of work in the labor market and help in updating course content as well as delivery of the programs. ♦ The industry should facilitate linkages (both forward as well as backward) in collaboration with the Chhattisgarh Handicrafts Development Board for providing a boost to the Handloom & handicrafts sector. The industry should facilitate the marketing and export of the handicraft products.

4.5 Bemetara

4.5.1 District Profile

Bemetara district, located in central part of Chhattisgarh was carved out of the northern portion of erstwhile Durg district on 1st January, 2012. It is located in the southern portion of the fertile Chhattisgarh plain. The district is part of Durg division. It is surrounded by Mungeli on the north, Baloda Bazar on the east, Raipur on the south-east, Durg on the south, Rajnandgaon on the south-west and Kabirdham on the west. It extends over an area of 2855 sq. Km, which is 2.1% of the total state area. The district is divided into 2 administrative divisions viz. Bemetara and Saja, 5 tehsils viz. Bemetara, Nawagarh, Saja, Thankamariya and Berla, 4 blocks viz. Bemetara, Nawagarh, Saja and Berla 700 villages, 334 gram panchayats, 1 Nagar Palika and 7 Nagar Panchayats. Bemetara is the district headquarters.

Map 6: Bemetara District



Forests account for just 8.97% of the total geographical area of the district. The forest cover of Bemetara is significantly lower than the state average & comprises of very dense forest (5.7%), moderately dense forest (67.9%) and open forest (26.3%)¹⁶⁰. The rivers Shivnath, Kharun, Hanf, Sakri, Hamp, Surahi and Phonk flow through the district. Bemetara has a tropical type of weather with hot summers and moderate winters¹⁶¹.

Table 95: Bemetara District Profile

#	Indicator	Bemetara	Chhattisgarh	% Share
1.	Area, in sq.km.	2854.8	135,190	2.1
2.	No. of sub-districts	5	149	3.4
3.	No. of inhabited villages	700	20126	3.5
4.	No. of households (in lakhs)	1.67 ¹⁶²	56.5	3.0
5.	Average Land holding size (Ha)	1.39 ¹⁶³	1.17	-
6.	Forest area cover	8.97% ¹⁶⁴	41.18%	-
Source: Census 2011, Directorate of Economics and Statistics, Govt. of Chhattisgarh and Forest survey of India, Ministry of Environment & Forest, 2011, Deloitte Analysis				

¹⁶⁰ Forest survey of India, Ministry of Environment & Forest, 2007

¹⁶¹ bemetara.gov.in

¹⁶² Divided according to the population ratio of Durg, Bemetara, Balod

¹⁶³ Data is for undivided Bemetara (including Durg and Balod)

¹⁶⁴ ibid.

4.5.2 Demography

As per Census 2011, Bemetara has a population of 7, 95,334 of which 90.7% of the people reside in the rural areas. The decadal population growth in Bemetara during 2001-2011 was 32.6%¹⁶⁵, which is much higher than the population growth of 17.2%¹⁶⁶ during the period 1991-2001. As of 2011, according to population, Bemetara ranked 16th among all the districts of Chhattisgarh. The population density and sex ratio are higher than the state. About 62.9% of the population is in the working age population class group. The district has a higher per capita income than the state average. It ranks 8th among the 27 districts in terms of per capita income.

Table 96: Demographic Indicators of Bemetara

Demography	Bemetara	Chhattisgarh
Population (2011)	7,95,334	2,55,40,196
Population 15-24 (2011)	1,67,421	49,89,339
Decadal Population Growth Rate (2001-11)	32.6%	22.6%
Population density per sq. km (2011)	279	189
Percentage of Urban Population (2011)	9.3%	23.2%
Percentage of SC population (2011)	13.7%*	12.8%
Percentage of ST population (2011)	11.9%*	30.6%
Average household size	4.77*	4.54
Sex Ratio (2011)	998	991
Working age population (15-59) as a percentage of total population, %	62.9%	60.1%
Per Capita Income (2009)	Rs. 24664 ¹⁶⁷	Rs.28263
Source: Census of India 2011; Directorate of Economics and Statistics- Govt. of Chhattisgarh		
* Data is for undivided Durg(including Bemetara and Balod)		

Key Observations:

- ♦ The population density in the district at 279 persons per sq. Km is higher than the state figure of 189.
- ♦ The percentage of people living in urban areas at 9.3% is much lower than the state figure of 23.2%.
- ♦ The district has a higher per capita income of Rs.28263 in comparison to the state average of Rs. 24664.

¹⁶⁵ Data is for undivided Durg (including Bemetara and Balod)

¹⁶⁶ *ibid.*

¹⁶⁷ At 2004-05 constant prices; Deloitte analysis

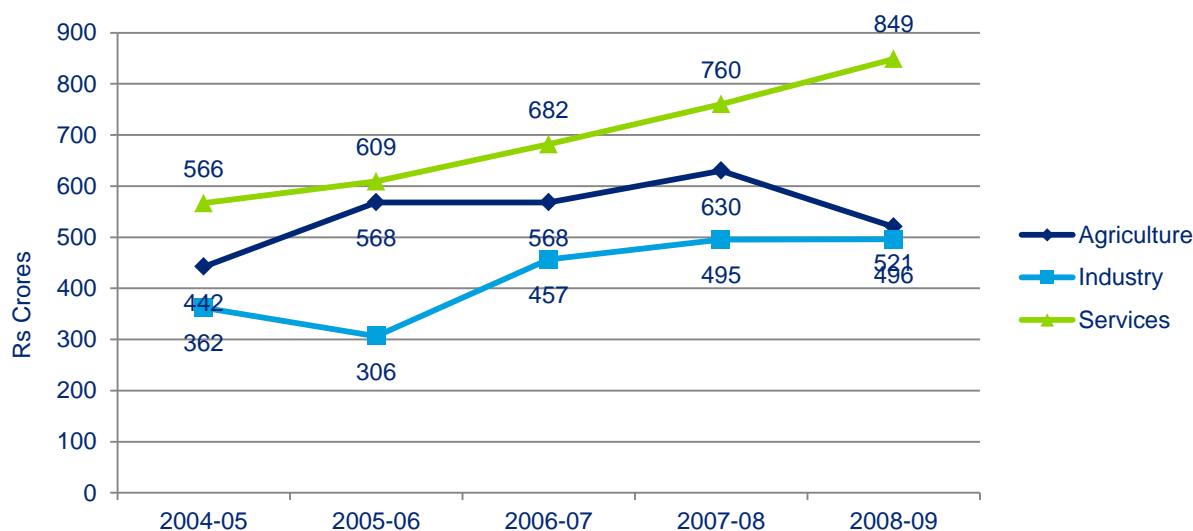
4.5.3 Economic Profile

Bemetara was formed in the year 2012 after it got separated from Durg. As per the analysis and available data, Gross District Domestic Product (GDDP) of Bemetara in the period 2005-09 has grown at a CAGR of 8% which is less than the state growth rate of 9.6% in the corresponding period. With a GDDP of Rs 1865.14 crores in 2008-09, Bemetara was 10th among 27 districts in terms of GDDP contribution. The economy of Bemetara contributed 2.7% to the Gross State Domestic Product.

The economy of Bemetara district is pre-dominantly Services sector based, **with Services sector's share in GDDP being 45.5% in 2008-09**. This is followed by Agriculture sector having 27.9% share in the GDDP and the Industry sector having a share of 26.6 percent. While the Services sector has shown the highest growth rate during 2004-2009 with a CAGR of 10.6%; the Industry and Agriculture sectors have grown at a CAGR of 8.2% and 4.2% respectively.

The sector-wise GDDP growth and distribution from 2005-09 is given in the figures below:

Figure 107: GDDP contribution of different sectors from 2005-09, Bemetara



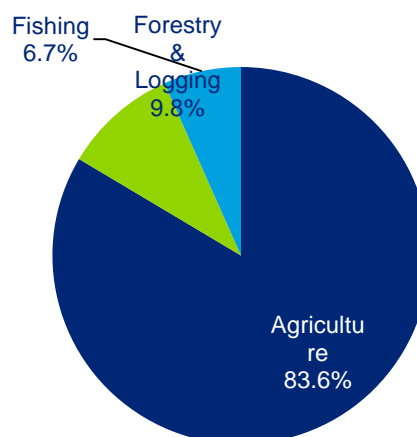
Source: Directorate of Economics and Statistics- Govt. of Chhattisgarh (2004-05 base price); Deloitte Analysis

Agriculture Sector

The contribution of Agriculture sector to GDDP was 27.9% in 2008-09. Agriculture is the main contributor in the total output of the Agriculture sector contributing 83.6% in the year 2008-09.

The main reason behind the high productivity of crops in the district can be attributed its location in the fertile Chhattisgarh plain. Besides, the tropical climate of Bemetara also helps in the growth of crops. The main crops grown in the Kharif season are paddy, soyabean, arhar etc. while wheat, gram, Als, mustard etc. are grown in the Rabi season. Though there are many rivers flowing through the district, no major dam has been constructed. As a result, much of the land in the district is unirrigated. Irrigation facility is provided through micro irrigation projects. Many farmers are dependent mainly on the rains and tube wells for irrigation. Trees of babul, mango, neem, pipal, kouha and khamhar are found in the district.

Figure 108: Sub-sectoral break-up in Agriculture sector (2008-09), Bemetara



Source: Directorate of Economics and Statistics- Govt. of Chhattisgarh; Deloitte Analysis

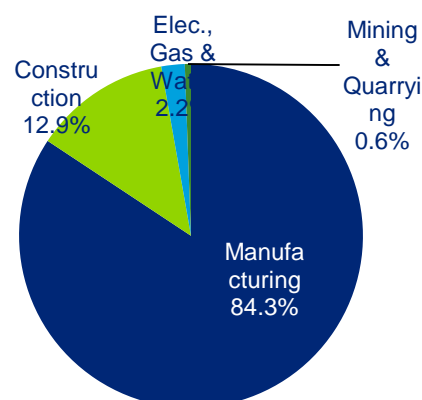
Industry Sector

The Industry sector (manufacturing, mining & quarrying, construction, electricity, gas and water supply) contributed 26.6% to the GDDP in 2008-09. Manufacturing is the major contributor within the Industry sector, with a sectoral share of 84.3%.

There are no large scale industries at Bemetara. However there are many Rice mill, Daal Mil and Aara mil in the district. Also small and macro industries of brick, molasses (gurh), utensils, bamboo works, shoe, soap and spice etc. are present in the district. The key industries in the MSME sector mainly include agro based industries. According to the industrial policy of Chhattisgarh 2009-14, all the blocks of Bemetara have been identified as areas for industrial investment encouragement.

Construction is also a major contributor within the Industry sector, with a sectoral share of about 12.9% in

Figure 109: Sub-sectoral break-up in industry sector (2008-09), Bemetara



Source: Directorate of Economics and Statistics- Govt. of Chhattisgarh; Deloitte Analysis

2008-09. A total budgeted value for ongoing building and construction activities (building and roadwork) in Bemetara for the year 2013-14 pegged at Rs. 323 crores shows the current focus of the district on the sector¹⁶⁸.

Bemetara also has some mineral deposits. Limestone is found at many places in the district. The limestone is utilized mainly by ACC for cement production and Bhilai Steel Plant for steel production. Precious stone Quartz is found village Jevara. Dolomite deposits are found in the Kowda-Mohbhatta area of Berla tehsil. The mineral revenue receipt for 2012-13 in Bemetara has been shown in the table below:

Table 97: Mineral Revenue Receipt (Rs. Lakhs) in 2012-13, Bemetara

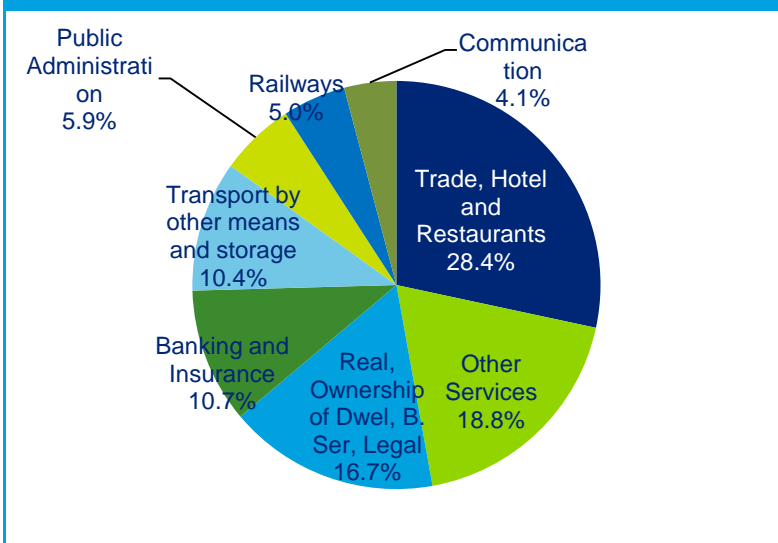
Major Minerals	Minor Minerals	Others	Total
28.90	152.17	11.05	192.12

Source: Directorate of Geology & Mining, Chhattisgarh

Services Sector

The Services sector contributes to about 45.5% of the GDDP in the year 2008-09. The key contributor to the sector is trade, hotel and restaurants contributing approximately 28.4% in the Services sector GDP followed by other services (18.8%) and real estate sector (16.7%). The district is connected to all major towns of the state through its road network. National Highway **NH12A connecting Simga in Chhattisgarh to Jhansi in Uttar Pradesh** passes through the district. There are two important state highways viz. Bemetara - Durg and Mungeli via Bemetara, Kumahari passing through the district. These connect Bemetara to cities like Durg, Raipur, Bilaspur, Bhilai and Kawardha. With a CAGR of about 16.9% and 19.8% over the period from 2004-2009, Communication and Banking & Insurance sectors respectively were among of the fastest growing sectors in the district, though their absolute sizes are small.

Figure 110: Percentage contribution to the Services sector (2008-09), Bemetara



Source: Directorate of Economics and Statistics- Govt. of Chhattisgarh; Deloitte Analysis

¹⁶⁸ Public Works Department, Chhattisgarh

Key Observations:

- ♦ Services sector was the highest contributor accounting for 45.5% of the district's GDDP and grew at a CAGR of 10.6%.
- ♦ Within the Services sector, trade, hotels and restaurants was the highest contributor with about 12.9% in the total district GDP share in 2008-09.
- ♦ Agriculture was the largest contributor to the GDDP at 23.3% in 2008-09 followed by manufacturing (22.4%) and trade, hotels and restaurants (12.9%).

4.5.4 Employment Profile

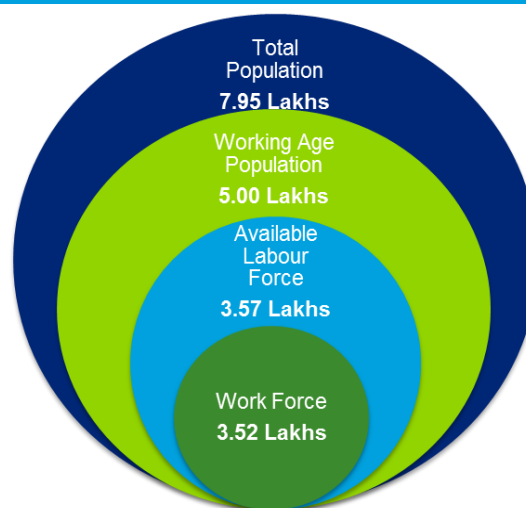
With a population of 7.95 lakhs, Bemetara accounted for nearly 3.11% of the state's population.

The figure below depicts the estimated workforce in Bemetara in the context of the population of the district. Out of the total population of 7.95 Lakhs, the working age population (between 15-59 age group) constitutes nearly 62.9%.

Based on the labor force participation rate and the worker participation rate estimates for the state, the available labour force is estimated to be 3.57 lakhs, and the workforce is estimated at 3.52 lakhs or nearly 70% of the working age population. **More than four-fifth of the workforce in the district is engaged in**

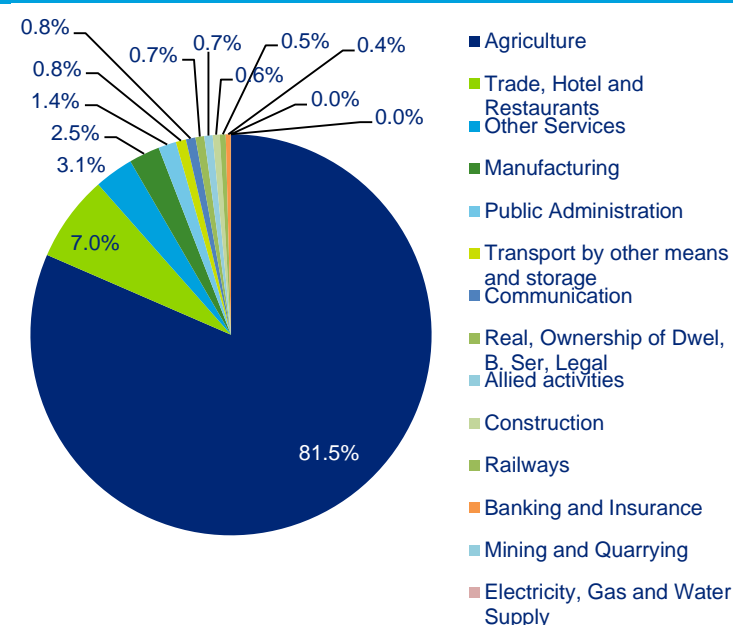
Agriculture sector in 2011. The Services sector which contributed to nearly half of the GDDP in the year 2011 is the second highest employer in the district employing around 14.7% of the workforce.

Figure 111: Total Workforce in Bemetara (2011)



Source: Census 2011 and Deloitte Analysis

Figure 112: Sector wise employment in Bemetara (2011)



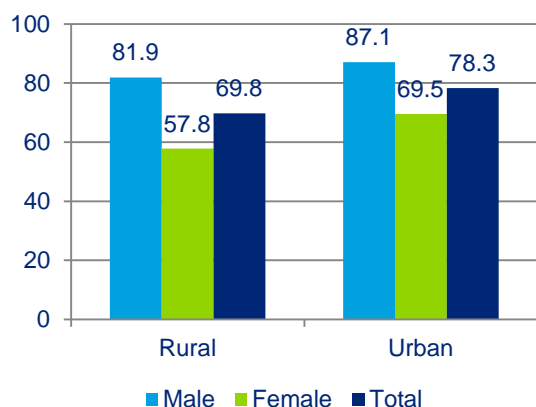
Source: Census 2011 and Deloitte Analysis

The sector-wise employment of Bemetara for the year 2011 has been shown in the adjoining figure. Agriculture contributed to 81.5% of the total employment in the district. Trade, hotels and restaurants (7%) was the second highest employer in the district, while manufacturing sector employed only 2.5% of the workforce. There exists disparity between the sector contribution to GDDP and the proportion of people employed for the sectors. Sectors like manufacturing and trade, hotels and restaurants show very little proportion of employment when compared to the GDDP contribution as opposed to agriculture which employs the bulk of people while contributing much less to the GDDP.

4.5.5 Education Infrastructure

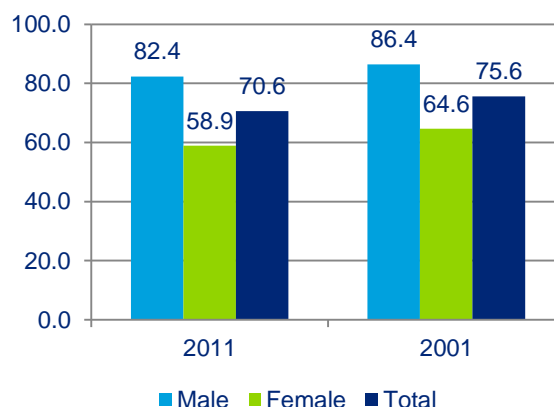
The literacy rate in Bemetara is 70.49% in 2011. It is comparable to the state's literacy rate of 70.3% in 2011 but lower than the all-India literacy rate of 73%. In 2011, male and female literacy rates stood at 82.1% and 58.9% respectively.

Figure 113: Literacy rate 2011 (by residence), Bemetara



Source: Census of India 2011

Figure 114: Literacy rate (by Gender), Bemetara*



Source: Census of India, 2001 and 2011

* Data for 2001 is for undivided Bemetara (including Durg & Balod)

School Education

Bemetara has 827 primary schools, 438 upper primary schools, 81 secondary schools and 88 higher secondary schools. Net enrolment ratio (NER) at the upper primary level (66.3%) is comparable to the state NER of 67.8%.

Table 98: Status of school education infrastructure in Bemetara, 2013

#	Educational Statistics	Units in Bemetara	Units in Chhattisgarh	% Share in State
1	Primary School	827	35588	2.3%
2	Upper Primary School	438	16442	2.7%
3	Secondary School	81	2632	3.1%
4	Higher Secondary School	88	3548	2.5%
5	NER (Primary) (2010-11)	86.8% ¹⁶⁹	98.0% ¹⁷⁰	-
6	NER (Upper Primary) (2010-11)	66.3% ¹⁷¹	67.8%	-

Source: DISE 2012-13

Vocational Education

For vocational training, Bemetara has a total of **5 ITIs in the district**, all of which are Government Industrial Training Institutes. Bemetara does not have any woman ITI. The total capacity of the ITIs in the

¹⁶⁹ Data is for undivided Bemetara (including Durg and Balod)

¹⁷⁰ Data is for 2008-09

¹⁷¹ Data is for undivided Bemetara (including Durg and Balod)

district is 376. Computer Operator and Programming Assistant and Electrician courses have the maximum units affiliated among ITIs.

The number of courses available in ITIs and their capacity are listed in the table below:

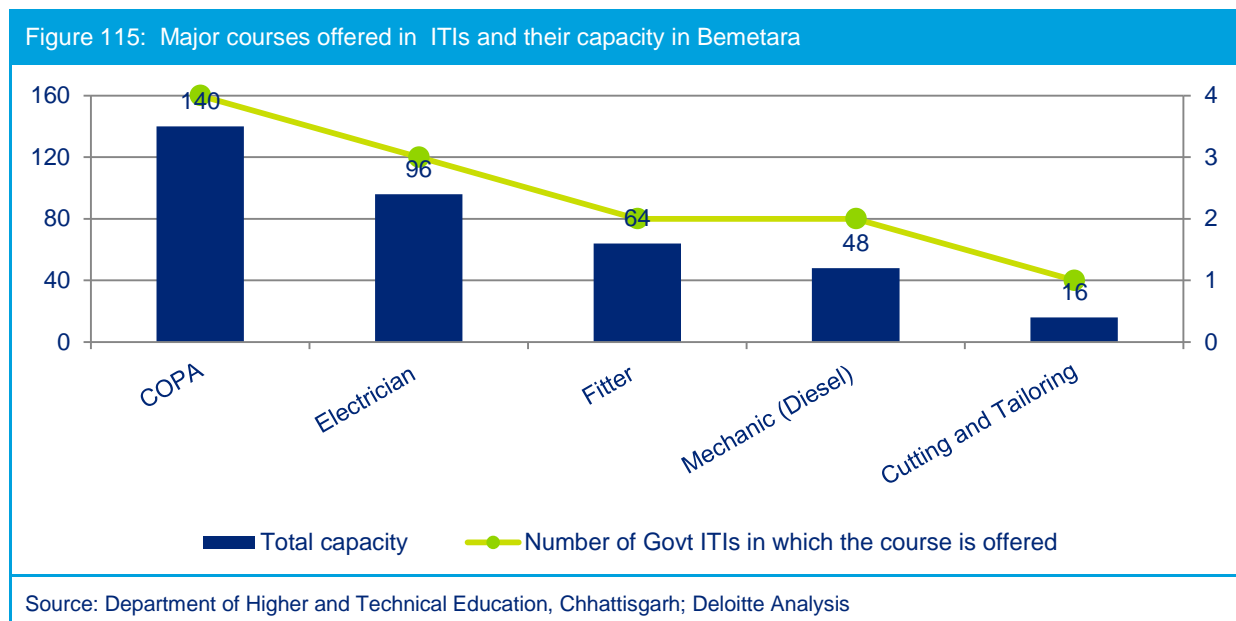
Table 99: ITIs in Bemetara and their capacity

Name of ITI	Number of courses offered	Total Units affiliated	Total Capacity
Shri Chandu Lal Chandrakar Government Industrial Training Institute, Bemetara	3	6	104
Government Industrial Training Institute, Berla	4	7	116
Government Industrial Training Institute, Maro	2	3	56
Government Industrial Training Institute, Maro, Dist.-Durg	1	1	20
Government Industrial Training Institute, Parpodi, Dist.-Durg	3	5	80
Total	6*	22	376

Source: Department of Higher and Technical Education, Chhattisgarh; Deloitte Analysis

*Total number of different courses offered by ITI's in Bemetara

The major courses offered in the ITIs and their capacity in Bemetara is given in the figure below:



According to Chhattisgarh State Skill Development Mission Website, as of 12th March 2014, Bemetara has **27 Vocational Training Providers (VTPs)** under which there are 1969 registered beneficiaries. The following table highlights the courses offered in vocational education, which currently meet requirements of about 7 sectors.

Table 100: Courses offered in vocational education, Bemetara

Sector	ITI trades and Units affiliated	Courses Offered by VTPs
Auto and auto components Electronics and IT hardware	Electrician(6), Fitter(4), Mechanic(3), Welder(1),	Electrical, Welder
IT and ITES Organized retail Banking, financial services and insurance	Computer Operator and Programming Assistant(7)	ICT
Textiles and clothing Leather and leather goods	Cutting and Tailoring(1)	Textile sector, Garment making,
Building, construction and real estate Construction material and building hardware		Construction
Source: CSSDA Website		

The following table highlights the NSDC partners present in Bemetara as of January 2014 and the courses offered by them.

Table 101: NSDC partners present in Bemetara

Name of Partner	Sectors in which course is offered	Courses offered
AISECT	IT and computer skills,	<ul style="list-style-type: none"> • Diploma in Computer Applications (DCA) • Post Graduate Diploma in Computer Applications (PGDCA) • Diploma in Computer Programming and Applications (DCPA)
	ITES- BPO	<ul style="list-style-type: none"> • Diploma in Computer Applications (DCA) • Post Graduate Diploma in Computer Applications (PGDCA) • Diploma in Computer Programming and Applications (DCPA)
Source: NSDC		

Higher Education

The status of higher education in Bemetara is not very promising. Out of a total 590 colleges in the state, only 8 colleges are in the college and 1 management college in the district. There is no technical, medical or nursing college in Bemetara indicating the district's share in the higher education space of the state at just 1.4%. This is lower in comparison to the share of population of Bemetara to the state (3.1%). Out of these, 6 offer general degree courses. There is 1 agriculture institute in the district.

Table 102: Number and Capacity of Higher Education infrastructure in Bemetara

#	Colleges	Number	Estimated Capacity*
1	Arts, Science and Commerce	6	-
2	Agriculture	1	24
3	Management	1	220
	TOTAL	8	-
*Source: University/College websites			

Key Observations:

- ♦ There are 5 ITI's and 27 VTPs active in the district.
- ♦ The share of Bemetara in the higher education space of the state is just 1.4%.

4.5.6 Youth Aspirations

Youth population constitutes the most important demographic section for a district from a skills development perspective. In the process of capturing the aspirations of the youth population in Bemetara, focused group discussions were held with youth from educational institutions as well as residing in rural areas to understand their concerns, areas of interest and future dreams and goals. The FGD in Bemetara was conducted at Gram Panchayat, Lolesara. People who participated in the FGD were from varied age groups, 52% of the respondents were in the age group 15-20 while 31% of them were between 21-25 years. Remaining 17% of the respondents were 26 years and above. In terms of gender representation, around 47% of the participants were females and 53% were males. The educational qualification of about 79% of the participants was high-school level or below. Around 14% of them were graduate and above with the remaining participants being diploma/certificate holder.

The key observations about aspirations of the youth of the district are highlighted below.

Table 103: Youth Aspiration – Key Responses – Bemetara

Parameters	Responses
Job Preference	<ul style="list-style-type: none"> There is no specific preference over government and private jobs. Women prefer to work within the district. Some of the youth want to venture into self-employment activities like motor mechanic, coaching institutions, etc.
Preferred Course	<ul style="list-style-type: none"> Training for job readiness appears to be most popular among the youth in the district. COPA (Computer Operator and Programming Assistant) and electrician are some of the preferred courses among the students. Self-employment activities like mobile repair, computer repair, tractor mechanic, motor mechanic, coaching institutes etc. and relevant courses are preferred among youth.
Migrating for job	<ul style="list-style-type: none"> Most of the youth particularly females prefer jobs within the district
Salary Expectations	Average monthly salary expectation of youth ranges between Rs 20,000 –30,000/-
Areas of concern/ aspirations- Infrastructure	<p>Following views were expressed regarding infrastructure in educational institutions:</p> <ul style="list-style-type: none"> Youth reported poor quality of infrastructure in the institutes in terms of books in the library, toilets, sports ground, canteens etc. The inadequacy of computers in schools and non-functioning of those available was also highlighted.
Areas of concern/ aspirations-Course Curriculum	<ul style="list-style-type: none"> Youth expressed a need for industry tie-ups for employment. They suggested that the local industries should train people on apprenticeship/ internship model to improve job prospects. Youth feel that institutes should provide more courses and improve the quality of teaching staff in the institutes.
Suggestions given by youth	<ul style="list-style-type: none"> The youth expect Govt. to take up initiatives to improve college infrastructure. Youth expressed that Govt. should take measures to provide Scholarships to BPL students and physically handicapped. There should be more courses, practical classes, resourceful, efficient and regular teachers available in the institutes. Career counseling and industry institute tie ups should be in place for providing proper job opportunities for the students.

A sample survey was conducted with youth at gram panchayat level & those coming out from various educational institutions (Government & private) to understand & capture their aspirations. The findings are presented below:

Job preference by youth

The majority of the youth we surveyed (78%) **prefer to get a job within their home district** as is evident from the adjacent figure. Approximately 3% of them preferred for job within their state of residence. The survey highlights the fact that around **81% of the youth surveyed wanted to get a job within Chhattisgarh** thus demanding and necessitating the creation of suitable positions and absorption capacity for them in the employment market. The survey reveals that not many youth are interested to migrate out of state in search of jobs.

Parameter for Institute Selection

A majority of the students surveyed (59%) at the gram panchayat level quoted the **job and placement opportunities in the institute** as their prime parameter while selection of an institute for higher education. Proximity to the institution was the next major reason for choice (23%) while 18% of the students looked at the quality of education offered by the institute and its reputation while selecting an institute for higher education.

Youth Perception Mapping

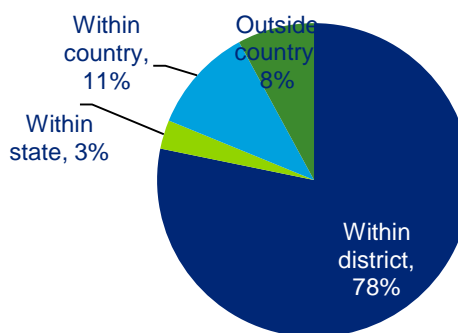
Youth perception mapping was undertaken to understand their level of satisfaction with either their current institute or their experience and feedback on the available educational infrastructure. The results are summarized below:

Low satisfaction with placement / jobs available post training: Around 22% of the students surveyed expressed their satisfaction with the placement opportunity available in the institute or jobs available post training. While around **71% of them felt the job opportunities available to them post training were not satisfactory**. They shared their expectation of being provided with a placement opportunity by the institute or facilitate a tie-up with nearby companies to give them an experience of hands on training.

Non-availability of latest technologies and equipment for training: **86% of the students surveyed expressed their dissatisfaction** with the availability of latest technology & equipment for training in the institute. A minority, i.e. only 1% of them shared their satisfaction with the same. They felt the lack of equipment as a major constraint for their knowledge enhancement and appropriate level of skill development. They demanded that the institutes to be adequately equipped and upgraded with latest technology.

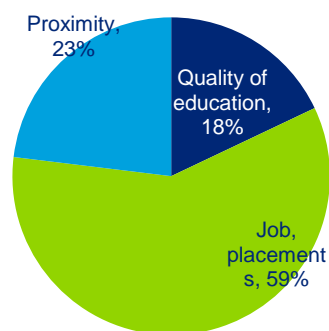
Dissatisfaction with capability of institute's faculty in teaching: Around **58% of the students feel the quality of teaching by faculty** is not satisfactory and needs significant improvement. They demanded the quality of faculty to be improved and also more faculty to be recruited as per the demand of the course.

Figure 116: Job Preference by Youth



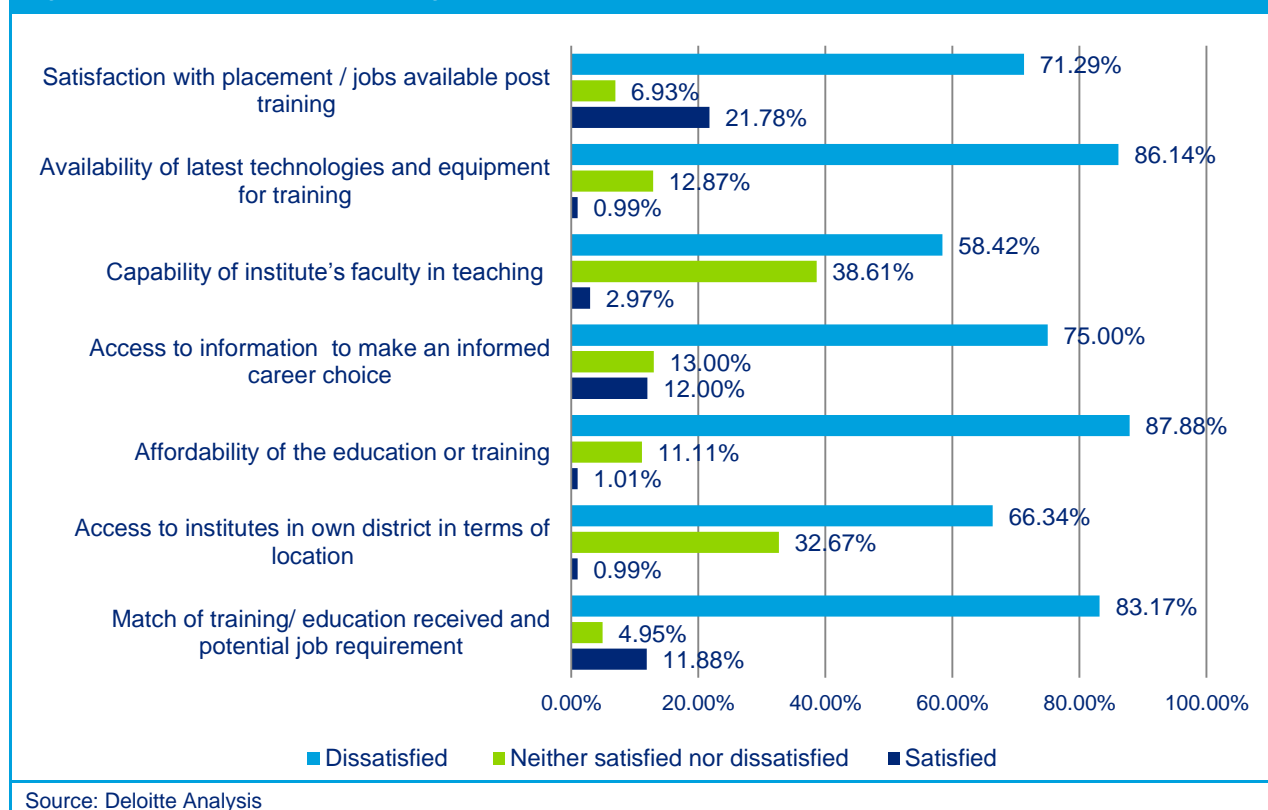
Source: Deloitte Analysis

Figure 117: Parameter for Choice of Institute



Source: Deloitte Analysis

Figure 118: Youth Perception Mapping, Bemetara



Source: Deloitte Analysis

Need for better access to information to make an informed career choice: Around 75% of the students shared that they did not get proper accessibility to information in order to make an informed career choice. They emphasized on the importance of career counseling while making a choice for higher education.

Affordability is a high a concern as quality and value for money in education or training: Majority of the students (around 88%) felt that the fees charged by the education/ training institute was a barrier for them and considered it to be unaffordable for them. They raised their concern that the quality of the training programme offered should be commensurate with the fees charged.

Access to institutes is an issue in rural areas: 66% of the students surveyed expressed their **dissatisfaction with the accessibility** of the educational institutes in terms of location and voiced the government to support them by arranging suitable transport facilities.

Dissatisfaction with utility of post school training/education received in terms of the job performance: Approximately 83% of the students surveyed believe that the training/education currently provided by the educational institutes in the district is not in alignment with the job requirements of the business. Only 12% of the youth felt that the training/ education received by them matches the potential job requirements. Thus, the survey brings out the **need to make the required changes in the course curriculum** to make the same application based and industry relevant.

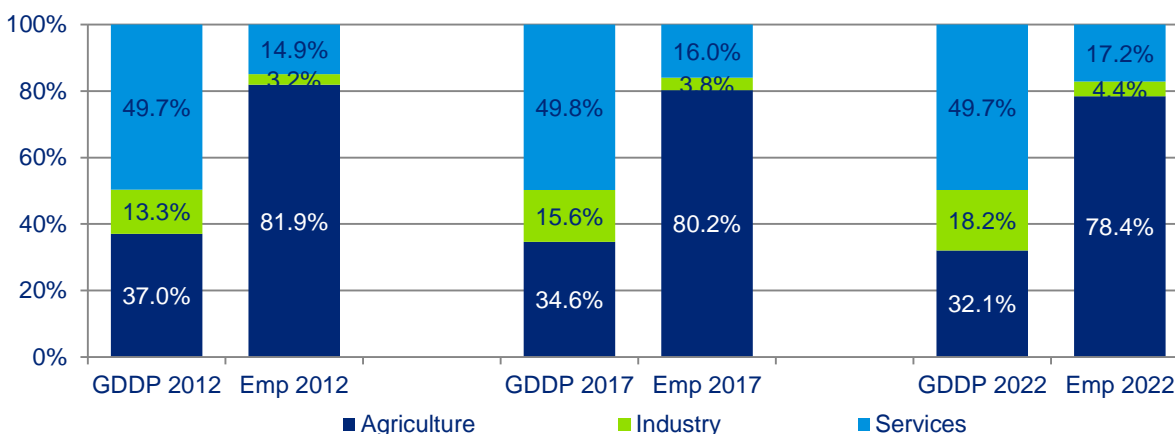
Key Observations:

- ♦ Govt. Jobs were preferred over private, the expected salary ranges from Rs.20000- Rs. 30000/-. Most of the students preferred jobs inside the district.
- ♦ Some people want to venture in self-employment activities like mobile repair, computer repair, tractor mechanic, motor mechanic, coaching institutes etc.
- ♦ Computer related courses, electricians, etc. were highlighted
- ♦ Need for updating course content & creating linkages for placement was strongly expressed
- ♦ Improving institute-industry interface to ensure better apprenticeship training was emphasized.
- ♦ Need to address Infrastructure gaps - particularly updating the library and laboratory with latest computers, tools and equipment was expressed
- ♦ Youth expressed that the lack of quality faculty in the institute and opined for more courses in the institutes.
- ♦ The need for career counseling was expressed by the youth in order to make informed decisions about the career.

4.5.7 Skill Gap Assessment

The working age population (15-59) constituting 62.9% of total district population in 2011, is expected to increase to 65.8% by 2022. Demand for jobs is expected to increase leading to the need for job creation. Similarly, to reap this demographic dividend, the labour force must be adequately skilled.

Figure 119: Comparison of Sectoral share in GDDP & Employment, Bemetara



Source: Deloitte Analysis

The above figure also depicts the significant disparity in the structures of economy and employment in the district. Based on our analysis and primary interactions, the Agriculture sector is expected to be an important sector in terms of providing employment in the district and would account for the largest share of workforce over the decade. If the trends in employment continue, in 2021-22, the share of employment across the Agriculture sector is expected to decline to 78.4% as compared to 81.9% in 2012.

The Industry and Services sector employment share are estimated to increase to 4.4% and 17.2% respectively, as indicated in the table above. This trend appears to be in line with the national trend as well where people are moving out of the Agriculture sector and moving into the Industry and Services sectors respectively.

Incremental Human Resource Demand

As per the methodology, the total incremental demand for manpower in Bemetara by 2022 is expected to be 0.70 lakhs. Following table provides the break-up of the incremental demand for manpower in Bemetara as per skill level required.

Table 104: Estimated Incremental Human Resource Demand (in '00s) by Skill Level in Bemetara

	2012-17	2017-22	Total
Skilled	45	53	98
Semi-Skilled	75	83	158
Minimally Skilled	219	222	441
Total	339	358	697

Source: Deloitte Analysis

Some of the key trends observed on the demand side include

- ♦ *Agriculture and Allied Activities will be the largest incremental demand generating sector (56.9%) with demand largely in the minimally skilled level.*
- ♦ *Within the Industry Sector, the greatest incremental demand on employment is expected to come from the food processing (4.2%) followed by Manufacturing (metal/mineral based) (3.5%) and Building & construction (3.2%).*
- ♦ *Within the Services Sector, Trade (Retail & Wholesale) is expected to contribute about 7.3% of the total incremental demand for employment, followed by Communication (4%) and BFSI (3.9%)*
- ♦ *Analysis of formal and informal employment indicates that the incremental demand for manpower in formal sector would come mainly from BFSI, Public Administration, Trade (retail + wholesale) , Manufacturing (mineral/ metal based) and Education/Skill Development Services.*
- ♦ *Majority of demand for incremental manpower in the informal sector is projected to come from Agriculture, Trade (retail + wholesale), Food Processing and Communication.*

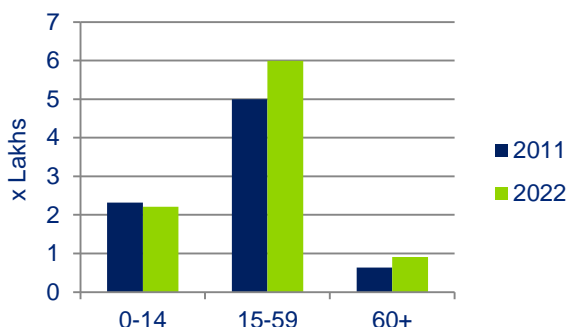
Table 105: Projected Incremental Human Resource Demand Sector-wise (in '00) by Skill Level in Bemetara

#	Key Sectors	2012-17				2017-22			
		Skilled	Semi-skilled	Minimally Skilled	Total	Skilled	Semi-skilled	Minimally Skilled	Total
1	Agriculture	6	20	174	200	6	20	171	196
2	Trade (Retail + Wholesale)	4	13	9	25	4	13	9	26
3	Food processing	1	4	8	14	2	5	9	16
4	Communication	2	5	5	12	3	6	6	15
5	Banking/ Insurance/ Finance	6	5	1	11	8	7	1	16
6	Manufacturing (mineral/ metal based)	2	7	2	11	3	8	3	13
7	Building & construction	1	4	4	10	2	5	6	13
8	Others	22	17	16	56	26	20	17	63
	Total	45	75	219	339	53	83	222	358
	Overall Incremental Demand				697				

Source: Deloitte Analysis

Incremental Human Resource Supply

Figure 120: Age wise distribution of population, Bemetara 2011 and 2022 (projected)



Source: Census 2011 and Deloitte Analysis

The population of Bemetara is expected to increase from 7.95 lakhs in 2011 to 9.11 lakhs in 2022. The adjacent figure provides the current and projected population across various age groups. As per the analysis, the number and proportion of children in 0-14 age group is projected to fall by about 0.11 lakh children, while the number of persons in the working age group is expected to increase by 1 lakh during the same period. This represents a potential demographic dividend for the district with a large increase in the employable population. On the other hand, it presents a huge challenge for the state to make available higher education and skill development facilities as well

as ensure productive employment opportunities for its population.

As per the methodology, the incremental supply of manpower in Bemetara is expected to be 0.96 lakhs over the decade (2012-22). Incremental manpower supply from various educational and vocational training institutes in the district can be further classified into skilled, semi-skilled and minimally skilled as per the educational qualifications.

Table 106: Estimated Incremental Human Resource Supply (in '00s) by Skill Level in Bemetara

	2012-17	2017-22	Total
Skilled	37	38	75
Semi-Skilled	120	121	242
Minimally Skilled	324	323	647
Total	482	481	963

Source: Deloitte Analysis

Some of the key trends observed on the supply side include

- Proportion of incremental supply of minimally skilled manpower is 67.1%, compared to 25.1% of skilled and 7.8% of semi-skilled manpower (2012-22)
- Bemetara has only 8 colleges out of which 6 are Arts, Science Commerce colleges.
- Bemetara has only 5 ITIs (with estimated intake capacity of 376) and 27 VTPs in the district. Although the semi-skilled manpower consists of one-fourth of the total incremental manpower over 2012-22, about 60% of the semi-skilled workforce constitutes of class-12 pass outs not going for higher education.
- The trend of migration is expected to be inward from other states and districts across all skill levels and would account to nearly 1.6% of the supply.

Incremental Demand Supply Gap

During the period 2012-22, the incremental human resource demand in Bemetara across all skill levels is estimated to be 0.7 lakh while the supply is projected to be 0.96 lakh indicating thus a surplus of 0.26 lakh people (refer table below).

There is assessed to be an excess demand across skilled segment with an excess supply expected in the semi-skilled and minimally skilled segments.

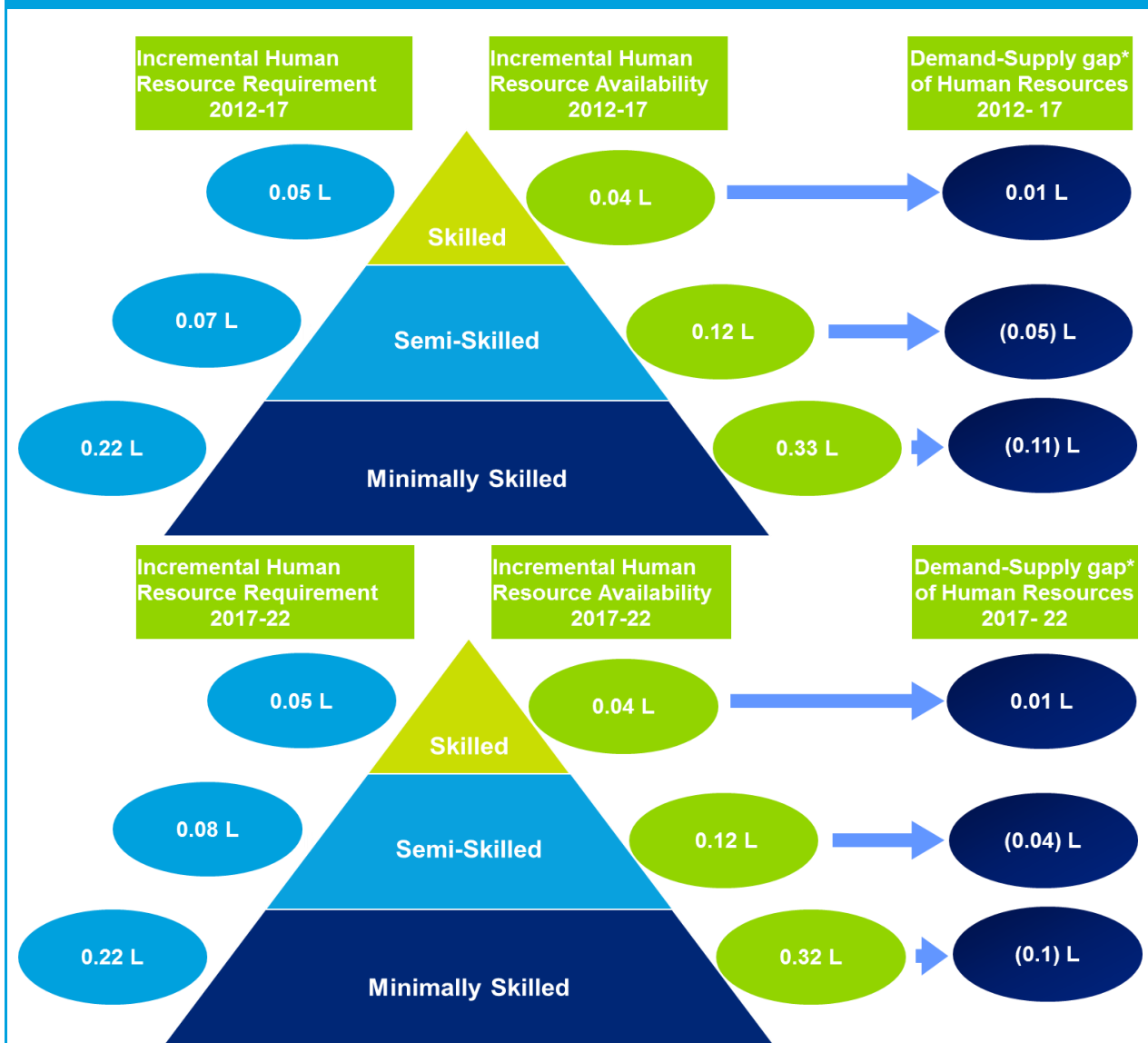
This means the rate of creation of employment in the district has to be augmented with suitable government initiatives in order to absorb the supply of workforce projected to enter the job market. Moreover, it also indicates a potential for skilling the semi-skilled and minimally skilled workforce and shift them to the more productive job roles assumed at the higher skill level respectively.

Table 107: Projected Demand Supply gap ('00) by skill levels in Bemetara

#	District Skill Gap	2012-17				2017-22			
		Skilled	Semi-skilled	Min. Skilled	Total	Skilled	Semi-skilled	Min. Skilled	Total
1	Incremental HR Requirement (Demand)	45	75	219	339	53	83	222	358
2	Incremental HR Availability(Supply)	37	120	324	482	37	121	323	481
3	Demand-Supply Gap	8	(46)	(105)	(143)	15	(38)	(101)	(123)
	Overall Demand-Supply Gap				(266)				
Source: Deloitte Analysis									

During the period 2012-22, the incremental manpower demand supply gap of the district (across all sectors mentioned above) is expected to be a surplus of about 0.26 lakh people with the excess supply across the semi- skilled and minimally skilled segments as shown in the following figure.

Figure 121: Incremental Demand-Supply Gap (in lakhs), Bemetara



Source: Deloitte Analysis

Some of the key trends observed on the demand-supply gap include

- ✦ The composition of the human resource demand supply gap over the two different time periods i.e. 2012-17 and 2017-22 is anticipated to remain the same.
- ✦ The excess demand of skilled resources in the district is expected to continue over the decade and increase in future. This is in line with presence of few higher education institutes in the district. Moreover, there seems to be **mismatch between outputs** from higher educational institutions in the district (75% in general degree courses) **to job specific skills** required by sectors having high demand for skilled labor.

- ♦ The excess supply in the semi-skilled segment is due to class-12 pass-outs not going for higher education, which constitutes about three-fifth of the total incremental supply of semi-skilled workforce.
- ♦ Due to the excess demand of skilled workers, the existing semi-skilled work force in the district can be skilled appropriately to move to the next productive employment opportunity.
- ♦ The trend of excess supply is likely to continue in the semi-skilled and minimally skilled segments across both the periods. However, primary interactions have raised **employability & deficit in specific jobs/ skills amongst workers** as major concerns. These have been captured in the qualitative skill gaps section below.

Qualitative Skill Gaps

The qualitative skill gaps that were highlighted during our primary interactions with industry at Bemetara are provided in the table below.

Table 108: Qualitative Skill Gaps

Sector	Level	Skill Gap
Agriculture	Tractor operator and mechanics/ Electricians/ Mechanics for repair & maintenance of agricultural tools & implements	<ul style="list-style-type: none"> ♦ Sufficient training to address tool & equipment failures like motor pump failure, gear damage, tyre puncture etc.
Trade (Retail+ Wholesale)	Store/Department Manager	<ul style="list-style-type: none"> ♦ Understanding of cross functional activities in the store esp. logistics, marketing and merchandising ♦ People management skills ♦ Vendor Management
	Billing Associate/ Accountants/ Computer operators	<ul style="list-style-type: none"> ♦ Knowledge of transaction processing software and cash management ♦ Knowledge of tally/accounting practice
	Sales/Customer Service personnel	<ul style="list-style-type: none"> ♦ Product specific knowledge ♦ Customer service and Inter personal skills
Food Processing	Procurement Managers	<ul style="list-style-type: none"> ♦ Ability to forecast demand and undertake procurement accordingly ♦ Ability to locate and enter into relationships with farmers
	Plant Associates and operators	<ul style="list-style-type: none"> ♦ Limited basic engineering knowledge esp. on practical aspects, process knowledge e.g. distillation
	Material Handlers	<ul style="list-style-type: none"> ♦ Limited awareness on quality, health and hygiene awareness ♦ Limited basic computer skills including barcode reading
	Sales and marketing	<ul style="list-style-type: none"> ♦ Limited Communication skills, ability and willingness to understand the manufacturing process
	Machine Operators	<ul style="list-style-type: none"> ♦ Insufficient knowledge of machine operation and use ♦ Ability to understand & follow instructions/ manuals ♦ Limited ability to carry out basic repairs and troubleshooting
Communication	Amplifier equipment repair	<ul style="list-style-type: none"> ♦ Domain/ Subject Knowledge and correct application
	Co-axial cable related lineman	<ul style="list-style-type: none"> ♦ Product specific knowledge
	Fibre optical line technician	<ul style="list-style-type: none"> ♦ Customer service and Interpersonal skills

Sector	Level	Skill Gap
	Network maintenance , Tower Repair & Maintenance Sales personnel (in both handsets and service companies)	<ul style="list-style-type: none"> ♦ Knowledge of technology and equipment being used ♦ Ability to understand & follow instructions/ manuals
	Sales personnel (in both handsets and service companies)	<ul style="list-style-type: none"> ♦ Understanding customer requirement; Product knowledge , Negotiation, communication and selling skills, Customer service and Inter personal skills

4.5.8 Recommendations

Growth Opportunities in Bemetara

In the context of the current profile and proposed investments in Bemetara, the demand-supply gap for human resources at various skill levels has been analyzed. The observations have been augmented by primary interactions with industry & industry association representatives in the district and government officials at the state and district level. Based on our analysis and considering factors like high growth and employment potential, priority sectors, investment trends, etc., the following sectors have been identified as having growth opportunities for employment and skill development in Bemetara.

Table 109: Key Growth Sectors - Bemetara

#	Priority Sectors	Growth opportunities in skills development and employment
1.	Agriculture	<ul style="list-style-type: none"> Agriculture currently provides employment to around four-fifths of the workers of the district. With an incremental demand of about 40,000 over 2012-22, it is expected to contribute about 57% of the total incremental demand over the period. Cultivation of paddy, soyabean, arhar, wheat, gram, Als, mustard etc. is expected to employ a significant section of the workforce
2.	Trade (Retail+ Wholesale)	<ul style="list-style-type: none"> Trade (Wholesale+ Retail) is estimated to grow at around 5.4% in the period 2012-22. It is anticipated to be one of the largest employers of the district, contributing to about 7.3% of the total incremental employment in Bemetara. According to primary interaction, repairs and services as well as presence of food processing industry will help in the growth of this sector in the district.
3.	Food Processing	<ul style="list-style-type: none"> There are many Rice mill, Daal Mil and Aara mil in the district. Food processing industry is expected to be the third largest employer in the district with a contribution of 4.2% to the total incremental demand over the period 2012-22.
4.	Communication	<ul style="list-style-type: none"> Communication is one of the fastest growing sector with an estimated growth rate of 9.5% Communication contributes to 4% of the incremental demand in the state.
Source: Deloitte Analysis		

Considering the economic and skill landscape of Bemetara, the table below indicates the priority areas of focus for key stakeholders involved. These observations have been mainly derived from the growth opportunities identified above and through primary interactions with industry and industry association representatives in the district along with inputs from the students, training institutes and government.

Table 110: Key Recommendations for Stakeholders - Bemetara

Stakeholder	Priority Areas
NSDC	<p>NSDC can focus on promoting partnerships with skill development players focusing on following priority sectors:</p> <ul style="list-style-type: none"> ✦ Agriculture ✦ Trade (Retail & Wholesale) ✦ Manufacturing – Food processing ✦ Communication
Private training providers	<ul style="list-style-type: none"> ✦ The existing training institutes should improve upon the existing training infrastructure for providing training to the youth. 86% of the students surveyed expressed their dissatisfaction with the availability of latest technology & equipment for training in the institute. ✦ For skill up gradation of existing workers as well as for improving their productivity, training is required with a focus to develop multi-function skills. The private training providers can introduce/ substantiate multi-disciplinary courses in sectors such as trade,

Stakeholder	Priority Areas
	<p>food processing etc.</p> <ul style="list-style-type: none"> • More batches should be run in courses like Fitter, Welder, Fabrication & Construction sectors so that the workforce contributing to the minimally skilled and semi-skilled surplus of Bemetara can pursue employment in neighbouring districts of Durg and Raipur where there is demand in sectors like Building & Construction and Manufacturing. • There is a need for providing training in courses like mobile repair, computer repair, tractor mechanic, motor mechanic etc. in order to promote self-employment in the district.
Government	<ul style="list-style-type: none"> • The Government should promote and endorse vocational education as a practical alternative to formal education with emphasis on providing job ready courses. • To encourage self-employment, the MSME-DI, Raipur should arrange multiple product-cum- process oriented programs in the district like Entrepreneurship Skill Development programmes (ESDPs), Entrepreneurship Development Programmes (EDPs), Industrial Motivation Camps (IMCs), BSDPs etc. for different groups of unemployed youth, people from weaker sections of the society, minorities, SCs & STs, technocrats, etc. with an objective of developing entrepreneurial qualities and preparing new entrepreneurs to setup their own small enterprises. • The regional DET offices and employment exchanges should collaborate together and arrange awareness campaigns in the district with focus on providing information on the VTP/Skill development institutes in the district along with the courses offered, registration process, course requirements, future job opportunities etc. Around 75% of the youth surveyed highlighted lack of awareness before making informed career decisions. • It should be followed by at least one annual job fair in the district organized in collaboration with industry.
Industry	<ul style="list-style-type: none"> • More industry interactions could be initiated in the Trade and Food Processing sectors in the district. • Facilitate exposure visits to faculty of the institutes, which will give them industry awareness & updated industry practices • There is a need to collaborate with skill development institutes (SDI), ITIs and Employment Exchanges in the district to create structures/ linkages for placement and internship/ OJT opportunities

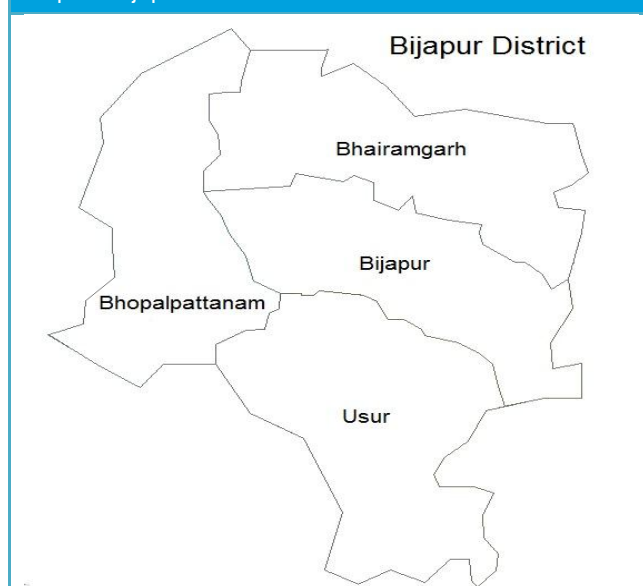
4.6 Bijapur

4.6.1 District Profile

Bijapur district is located in the southern portion of Chhattisgarh. The district is part of Bastar division. It is surrounded by Narayanpur on the north, Dantewada on the east, Sukma on the south-east, Maharashtra on the west and Andhra Pradesh on the south. In 1998, the former Bastar district of Madhya Pradesh was divided into Bastar, Kanker and Dantewada. In 2007, Bijapur was carved out of Dantewada.¹⁷²

It extends over an area of 6562 sq. Km, which is 4.9% of the total state area. The district is divided into 4 tehsils viz. Bijapur, Bairamgarh, Bhopalpatnam and Usur, 696 villages, 157 gram panchayats, 4 Janpad Panchayats, 3 Nagar Panchayats, 4 Revenue Inspector Circles and 83 Patwari Halkas. The district headquarter is the Bijapur town.

Map 7: Bijapur District



Forests account for around 28% of the total geographical area of the district¹⁷³. The topography of the region is hilly. The highest peak of the district is Bailadila which is also known as the Bullock's Hump. The district also has thick forest cover and is famous for its rich wildlife. Tigers and panthers are found in the forests throughout the district. The main river of the district is Indravati, which flows along the southern limit of the district.

Table 111: Bijapur District Profile

#	Indicator	Bijapur	Chhattisgarh	% Share
1.	Area, in sq.km.	6562	135,190	4.9
2.	No. of sub-districts	4	149	2.7
3.	No. of inhabited villages	574	20126	2.9
4.	No. of households (lakhs)	0.54	56.50	1.0
5.	Average Land holding size (Ha)	0.98	1.17	-
6.	Forest area cover	28.0%	41.2%	-

Source: Census 2011, Directorate of Economics and Statistics, Bijapur District website (<http://bijapur.gov.in/area.html>)

¹⁷² <http://bijapur.gov.in/>

¹⁷³ Bijapur District website (<http://bijapur.gov.in/area.html>)

4.6.2 Demography

As per Census 2011, Bijapur has a population of 2, 55,180 of which 88.4% of the people reside in the rural areas¹⁷⁴. The decadal population growth in Bijapur during 2001-2011 was 8.8%¹⁷⁵. As of 2011, Bijapur is the one of the least populous district of Chhattisgarh. It ranks 25th among the 27 districts of the state. As per Census 2011, the Usur tehsil in Bijapur has zero urban population. About 62.3% of the population is in the working age population group.

Table 112: Demographic Indicators of Bijapur

Demography	Bijapur	Chhattisgarh
Population (2011)	2,55,180	2,55,40,196
Population 15-24 (2011)	52,103	49,89,339
Decadal Population Growth Rate (2001-11)	8.8%	22.6%
Percentage of Urban Population (2011)	11.6%	23.2%
Percentage of SC population (2011)	3.4%	12.8%
Percentage of ST population (2011)	78.5%	30.6%
Average household size	4.66	4.54
Sex Ratio (2011)	982	991
Working age population (15-59) as a percentage of total population, %	62.3%	60.1%
Per Capita Income (2009)	Rs. 12,088 ¹⁷⁶	Rs.28,263
Source: Census of India 2011; Directorate of Economics and Statistics- Govt. of Chhattisgarh; Deloitte Analysis		

Key Observations:

- ♦ Bijapur is one of the least populated districts of the state and ranks 25th amongst all the districts of Chhattisgarh.
- ♦ The district also has one of the lowest per capita incomes in the state. The per capita income (Rs 12,088) is much lower than the state average of Rs 28,263.

¹⁷⁴ Census 2011

¹⁷⁵ *ibid.*

¹⁷⁶ At 2004-05 constant prices; Deloitte Analysis

4.6.3 Economic Profile

Bijapur was formed in the year 2007 after it got separated from Dantewada. The economy of Bijapur has registered a CAGR of about 2.1% (estimated at constant prices, 2004-05) between 2004-05 and 2008-09 and grown from Rs. 279 cr to Rs 303.5 cr¹⁷⁷. The district recorded a much lower growth as compared to the state growth of 9.6% over the same period.

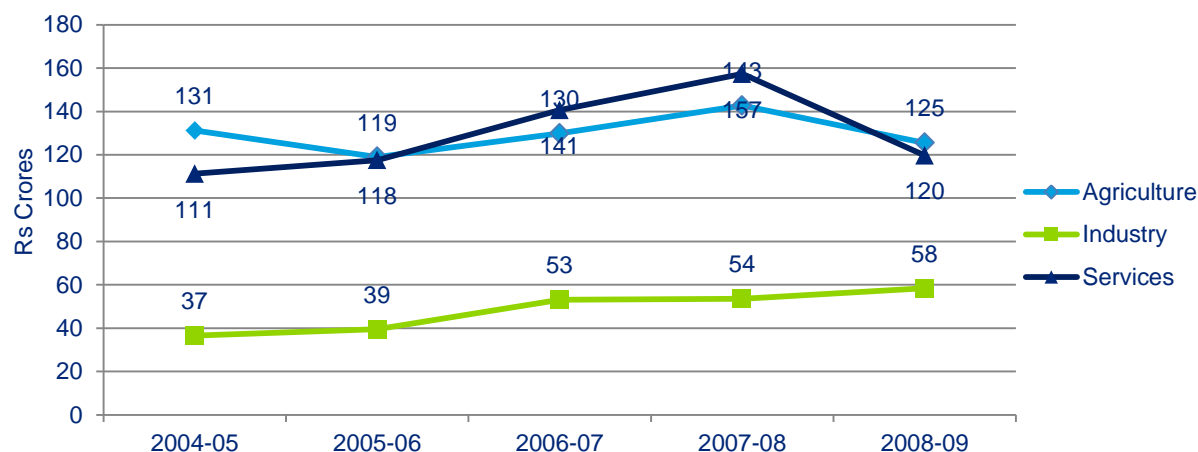
As per the analysis, in 2008-09, Bijapur district contributed about 0.4% in the state economic activity and was ranked 25th in Chhattisgarh in terms of economic activity. Bijapur district had the 3rd least Gross District Domestic Product (GDDP) among all districts in Chhattisgarh at Rs 303.5 crores (2008-09).

The economy of Bijapur district is pre-dominantly Agriculture sector based, with its share in GDDP being 41.3% in 2008-09. This is followed by the Services sector having 39.4% share in the GDDP and Industry sector which has a share of 19.2%.

The Industry sector has shown the highest growth rate in the district over the period 2005-2009 with a CAGR of 12.4% followed by Services sector which registered a CAGR of 1.8%. The Agriculture sector witnessed a negative CAGR of -1.1% during the same period.

The sector-wise GDDP growth and distribution from 2005-2009 is given in the figures below:

Figure 122: Sectoral Share of GDDP, 2004-05 to 2008-09, Bijapur



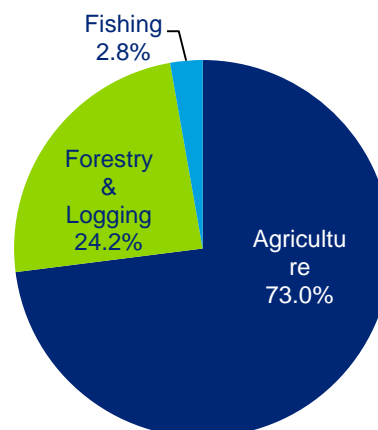
Source: Directorate of Economics and Statistics- Govt. of Chhattisgarh (2004-05 base price); Deloitte Analysis

¹⁷⁷ Directorate of Economics and Statistics-Chhattisgarh; Deloitte Analysis

Agriculture Sector

The contribution of Agriculture sector (agriculture, forestry & logging and fishing) to GDDP was 41.3% in 2008-09. Agriculture is the major contributor to the sector with a sectoral contribution of 73% in 2008-09. Bijapur is predominantly an agricultural district with more than 80% of the workers involved in agriculture. The fertile soil of the region helps in the growth of crops all year round. The main agricultural crops are Paddy, Kodo-Kutki, Sorghum and maize. Besides, Urad is the main lentil crop and Mustard is the main oil seed crop sown by farmers. Being a rain-fed crop, rice is grown predominantly during kharif season, but the productivity of this crop is very low due to the use of traditional agricultural implements in farming, low fertilizer consumption and absence of irrigation facilities. The tribal people of the region mostly use traditional methods of farming.

Figure 123: Sub-sectoral break-up in Agriculture sector (2008-09), Bijapur



Source: Directorate of Economics and Statistics- Govt. of Chhattisgarh; Deloitte Analysis

Teak, Sal, Sirsa, Mahua, Tendu trees are found in the northern portion of the district. Many people support their livelihoods through collection and sale of forest produce like Tendu leaves, Sal seed, Medicinal plants, bamboo, lac and honey. Additionally, the extraction of sap from Palm plants provides an important source of livelihood in the domestic economy of the district.

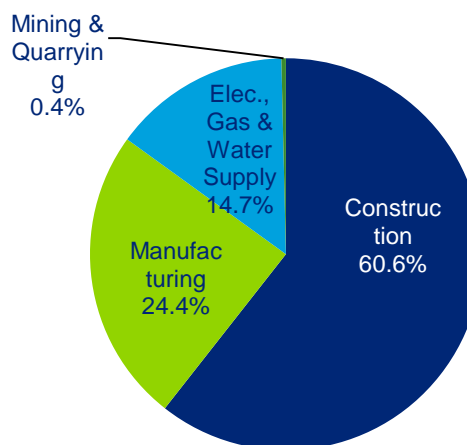
Industry Sector

The Industry sector (mining & quarrying, manufacturing, construction, electricity, gas and water supply) contributed 19.2% to the GDDP in 2008-09.

Construction is the main contributor in the total output of the Industry sector contributing about 61% of the sectoral output in the year 2008-09. The total budgeted value for ongoing building and construction activities (building and roadwork) in Bijapur for the year 2013-14 is allocated at Rs. 80 crores¹⁷⁸.

Bijapur is rich in mineral resources. Corundum deposits are found in abundance in the district particularly at the Dhangol & Kuchanur of Bhopalpatnam Tehsil. Higher Grade quality of Corundum has also been identified at Sendra, Usur, and Cherapalli. The total mineral revenue receipt for

Figure 124: Sub-sectoral break-up in Industry sector (2008-09), Bijapur



Source: Directorate of Economics and Statistics- Govt. of Chhattisgarh; Deloitte Analysis

¹⁷⁸ Chhattisgarh Public Works Department

2012-13 in Bijapur was Rs 14.23 lakhs¹⁷⁹.

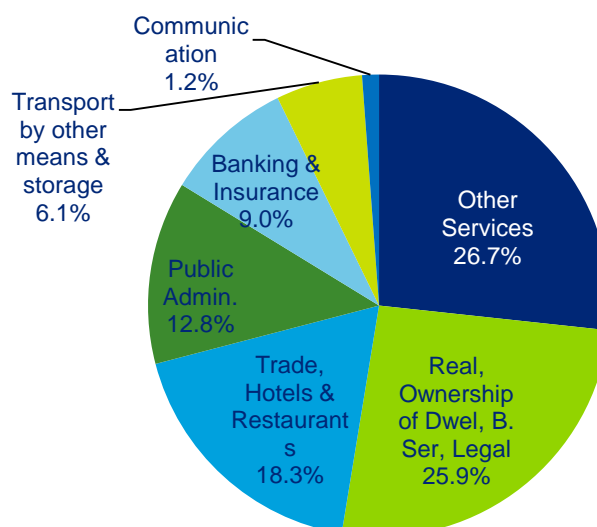
There are no large scale industries in the district. The major contributor to the manufacturing sector is the handicraft Industry. The tribes display their creativity through various art forms such as Bamboo, Bell Metal, Terracotta, Wood Carving, Wrought Iron and Sisal/Jute. There are around 30 handicraft clusters in the district¹⁸⁰. In the MSME sector, there are some metal based fabrication units and repairing and servicing centres.

Services Sector

The Services sector contributes to about 39.4% of the GDDP in the year 2008-09. The key contributor to the sector (26.7%) is other service which includes education and skill development, healthcare services, social work and select informal sectors. It is followed by Real estate services (25.9%), trade, hotels and restaurants (18.3%), Public administration (12.8%) and Banking and Insurance (9.0%).

The Indravati National Park is a major centre of attraction in the district. It is home to one of the last populations of rare wild buffalo and is also a tiger reserve. There are two National Highways passing through the district viz. NH-16 (connecting Nizamabad in Andhra Pradesh and Jagdalpur in Chhattisgarh) and NH-202 (connecting Hyderabad in Andhra Pradesh and Bhopalpatnam in Chhattisgarh). With a CAGR of about 16.9% and 19.8% over the period from 2004-2009, communication and banking & insurance sectors respectively were among of the fastest growing sectors in the district, though their absolute sizes are small.

Figure 125: Percentage contribution to the Services sector (2008-09), Bijapur



Source: Directorate of Economics and Statistics- Govt. of Chhattisgarh; Deloitte Analysis

Key Observations:

- ♦ The economy of Bijapur district is pre-dominantly Agriculture sector based, with its share in GDDP being 41.3% in 2008-09. This is followed by the Services sector having 39.4% share in the GDDP and Industry sector which has a share of 19.2%.
- ♦ The Industry sector has shown the highest growth rate in the district over the period 2005-2009 with a CAGR of 12.4% followed by Services sector which registered a CAGR of 1.8%. The Agriculture sector witnessed a negative CAGR of -1.1% during the same period.

¹⁷⁹ Directorate of Geology & Mining, Chhattisgarh

¹⁸⁰ Chhattisgarh Handicrafts Sector Profile, Chhattisgarh Handicrafts Sector Meet, 2012

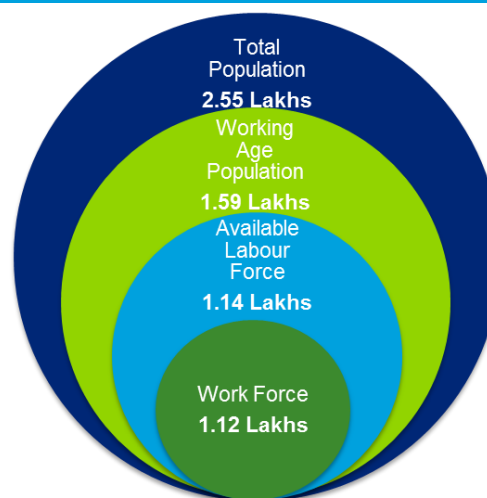
4.6.4 Employment Profile

With a total population of 2, 55,180 in the year 2011, Bijapur accounted for approximately 1% of the state's population.

The adjacent figure depicts the estimated workforce in Bijapur in the context of the population of the district. Out of the total population of 2.5 Lakhs, the working age population (between 15-59 age group) constitutes nearly 62.3%.

Based on the labor force participation rate and the worker participation rate estimates for the state, the available labour force is estimated to be 1.14 lakhs, and the workforce is estimated at 1.12 lakhs or nearly 70% of the working age population.

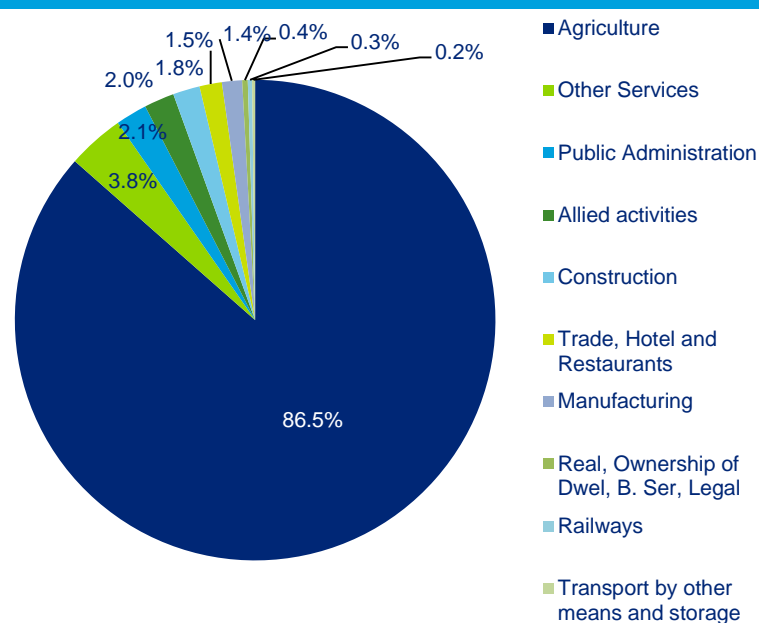
Figure 126: Total Workforce in Bijapur (2011)



Source: Census 2011 and Deloitte Analysis

As of 2011, about 86% of the workforce in Bijapur district is engaged in primary sector. The Services sector which has the second highest contribution in the GDDP in the year 2011 is also the second highest employer in the district employing around 8.5% of the workforce.

Figure 127: Sector wise employment in Bijapur (2011)



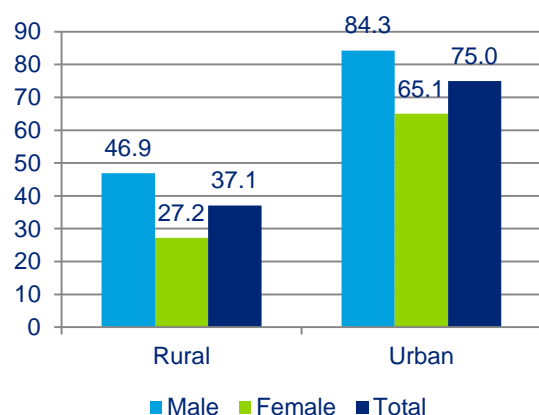
Source: Census 2011 and Deloitte Analysis

The sector-wise employment of Bijapur for the year 2011 is shown in the adjoining figure. Agriculture contributed to 86.5% of the total employment in the district. Other services is the second highest employer in the district (3.8%) followed by public administration which employed around 2.1% of the total workforce. There exists significant disparity between the sectoral contribution to GDDP and the proportion of people employed. Sectors like manufacturing and trade, hotels and restaurants show very little proportion of employment when compared to the GDDP contribution as opposed to Agriculture which employs the bulk of people while contributing much less to the GDDP.

4.6.5 Education Infrastructure

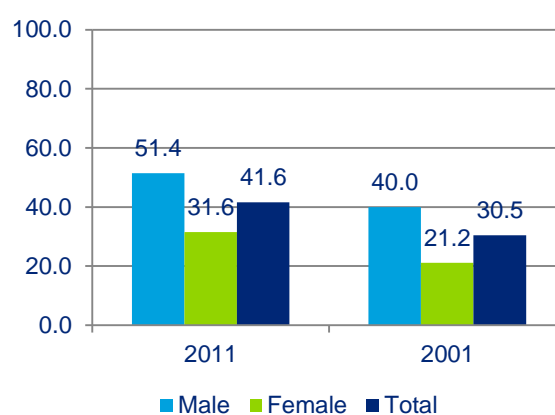
The literacy rate in Bijapur has improved from 30.5%¹⁸¹ in 2001 to 41.58% in 2011. However it is much lower than the state's literacy rate of 70.3% as well as the all-India literacy rate of 73%. In 2011, male and female literacy rates stood at 51.42% and 31.56% respectively, both figures considerably improving since 2001¹⁸², where the figures stood at 39.97% and 21.18% respectively.

Figure 128: Literacy rate 2011 (by residence), Bijapur



Source: Census of India 2011

Figure 129: Literacy rate (by Gender), Bijapur



Source: Census of India, 2001 and 2011

School Education

Bijapur has 823 primary schools, 225 upper primary schools, 22 secondary schools and 32 higher secondary schools. Net enrolment ratio (NER) at the upper primary level (28.4%) is considerably lower than the state NER of 67.8%.

Table 113: Status of school education infrastructure in Bijapur, 2013

#	Educational Statistics	Units in Bijapur	Units in Chhattisgarh	% Share of District in State
1	Primary School	823	35588	2.3%
2	Upper Primary School	225	16442	1.4%
3	Secondary School	22	2632	0.8%
4	Higher Secondary School	32	3548	0.9%
5	NER (Primary) (2010-11)	93.7%*	98.0% ¹⁸³	-
6	NER (Upper Primary) (2010-11)	28.4%*	67.8%	-

Source: District Report Cards, DISE

* Data is for undivided Bijapur(including Dantewada and Sukma)

¹⁸¹ Census 2001; Data is for undivided Bijapur (including Dantewada and Sukma)

¹⁸² *ibid.*

¹⁸³ Data is for 2008-09

Vocational Education

There is only 1 **ITI in the district** which is a Government Industrial Training Institute. There is no woman ITI in Bijapur. The total capacity of the ITI is 96. Electrician, fitter and Diesel Mechanic courses are available in the ITI. The number of courses available in the ITI and its capacity are listed in the table below:

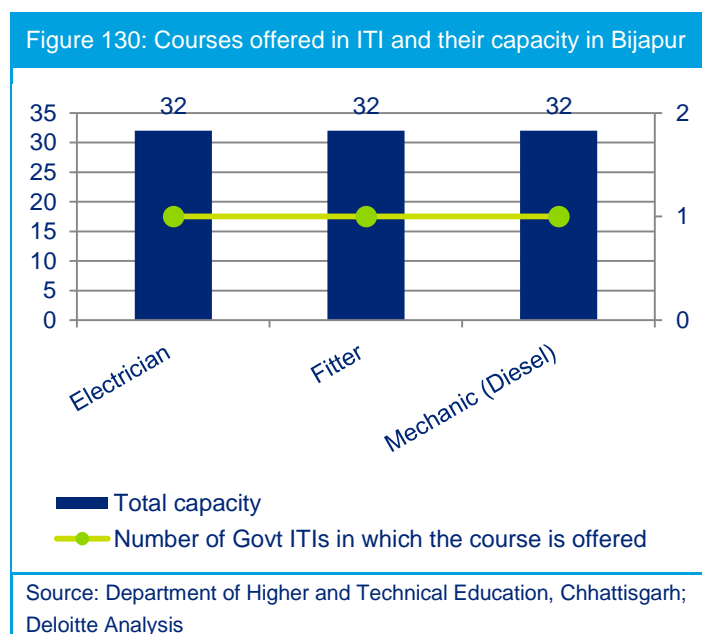
Table 114: ITI in Bijapur and its capacity

Name of ITI			Number of courses offered	Total Units affiliated	Total Capacity
Government	Industrial	Training	3*	6	96
Institute, Bijapur					

Source: Department of Higher and Technical Education, Chhattisgarh; Deloitte Analysis

*Total number of different courses offered by ITI's in Bijapur

The courses offered in the ITI and their capacity in Bijapur is given in the figure below:



According to Chhattisgarh State Skill Development Mission Website, as of 12th March 2014, Bijapur has **42 Vocational Training Providers (VTPs)** under which there are 2133 registered beneficiaries.

The following table highlights the courses offered in vocational education, which currently meet requirements of about 6 sectors only.

Table 115: Courses offered in vocational education, Bijapur

Sector	ITI trades and Units affiliated	Courses Offered by VTPs
Auto and auto components Electronics and IT hardware	Electrician(2), Fitter(2), Mechanic(2)	Electrical,
IT and ITES Tourism, hospitality and travel		Soft skill
Building, construction and real estate Construction material and building hardware		Construction
Source: CSSDA Website		

Higher Education

The status of higher education in Bijapur is not very promising. Out of a total 590 colleges in the state, only 2 colleges are in the district of Bijapur indicating the district's share to be just 0.3% in the higher education space of the state. This is lower in comparison to the share of population of Bijapur to the state (1%). Both the colleges are Govt. colleges offering general degree courses and are affiliated to Bastar University.

Key Observations:

- ♦ There is only 1 ITI and 42 VTPs active in the district.
- ♦ The share of Bijapur in the higher education space of the state is just 0.3%. There are 2 general degree colleges in the district.

4.6.6 Youth Aspirations

Youth population constitutes the most important demographic section for a district from a skills development perspective. In the process of capturing the aspirations of the youth population in Bijapur, focused group discussions were held with youth from educational institutions as well as residing in rural areas to understand their concerns, areas of interest and future dreams and goals. The FGD in Bijapur was conducted at the Anganwadi center of Itpal Gram Panchayat. 9% of the respondents were in the age group 15-20 while 86% of them were between 21-25 years. Remaining 5% of the respondents were 26 years and above. The educational qualification of about 9% of the participants was high-school level or below while the remaining 91% of them were diploma/certificate holders.

The key observations about aspirations of the youth of the district are highlighted below:

Table 116: Youth Aspiration – Key Responses –Bijapur

Parameters	Responses
Job Preference	<ul style="list-style-type: none"> Most of the youth especially women preferred Government jobs over private jobs due to the job security offered in a Government job.
Preferred Course	<ul style="list-style-type: none"> Training for job readiness appears to be most popular among the youth in the district. Women are interested in job oriented courses like beauty parlor; tailoring and sewing, home science etc. Teaching is also one of the preferred professions amongst the women. Boys are interested in learning computer related courses
Migrating for job	<ul style="list-style-type: none"> Most of the youth prefer jobs within the state. Women want to work within district. Males are willing to go outside district for jobs.
Salary Expectations	Average monthly salary expectation of youth is around Rs 10,000/-.
Areas of concern/ aspirations- Infrastructure	<p>Following views were expressed regarding infrastructure in educational institutions:</p> <ul style="list-style-type: none"> Youth reported poor quality of infrastructure in the institutes in terms of books in the library, building, laboratories etc. The need of hostel facility was also pointed out by the youth.
Areas of concern/ aspirations-Course Curriculum	<ul style="list-style-type: none"> Rural youth expect free computer training, free coaching for competitive examination and training camps within the district. Youth feel that institutes should focus more on soft skill and language training besides technical know-how, and it is critical for getting a good job. Local industries should train people on apprenticeship/ intern model to improve job prospects.
Suggestions given by youth	<ul style="list-style-type: none"> The youth expect Govt. to take up initiatives to improve college infrastructure. Youth expressed that Govt. should take measures to provide proper education facilities to the poor people. There should be more courses, practical classes, resourceful, efficient and regular teachers available in the institutes. The Government should open new institutes with more trades. There should be awareness generation camps for training programmes. There is need for creating tie-ups between institutes and industries in the district.

A sample survey was conducted with youth at gram panchayat level & those coming out from various educational institutions (Government & private) to understand & capture their aspirations. The findings are presented below:

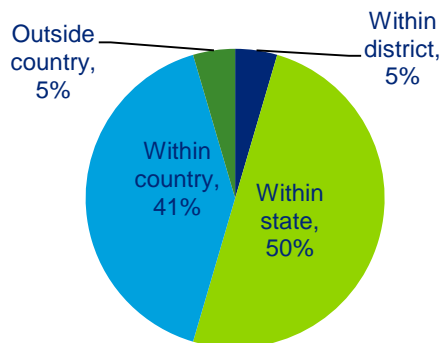
Parameter for Institute Selection

Majority of the students surveyed quoted the quality of education as the most important reason for the selection of the institute. In addition, Job placements were also an important reason amongst the youth for the selection of institute.

Job preference by youth

The majority of the youth surveyed (50%) **prefer to get a job within their home state** as is evident from the adjacent figure. Approximately 5% of them preferred for job within the district. **The survey highlights the fact that majority of the youth surveyed (approximately 55%) prefer to get a job within Chhattisgarh.** However, 41% of the youth preferred jobs within the country and are open for migration inside India. The survey reveals that a considerable portion of youth is interested to migrate out of state in search of jobs.

Figure 131: Job Preference by Youth



Source: Deloitte Analysis

Youth Perception Mapping

Youth perception mapping was undertaken to understand their level of satisfaction with either their current institute or their experience and feedback on the available educational infrastructure. The results are summarized below:

Dissatisfaction with placement / jobs available post training: Around 82% of the students surveyed expressed their dissatisfaction with the placement opportunity available in the institute or jobs available post training with only a small proportion (5%) of them expressing satisfaction over the placement opportunities available in the institute.

Non-availability of latest technologies and equipment for training: 82% of the students surveyed expressed their dissatisfaction with the availability of latest technology & equipment for training in the institute. The students highlighted the need for adequate number of computers in the institute for training. They demanded that the institutes should be adequately equipped and upgraded with latest technology.

Dissatisfaction with capability of institute's faculty in teaching: Around 96% of the students (especially the students from Government ITI's) feel the quality of teaching by faculty is not satisfactory and needs significant improvement. They demanded the number of faculty to be increased as per the demand of the course and the need for better faculty. They also suggested inviting guest lecturers/visiting faculty from industry for providing inputs on the latest trend in the sector.

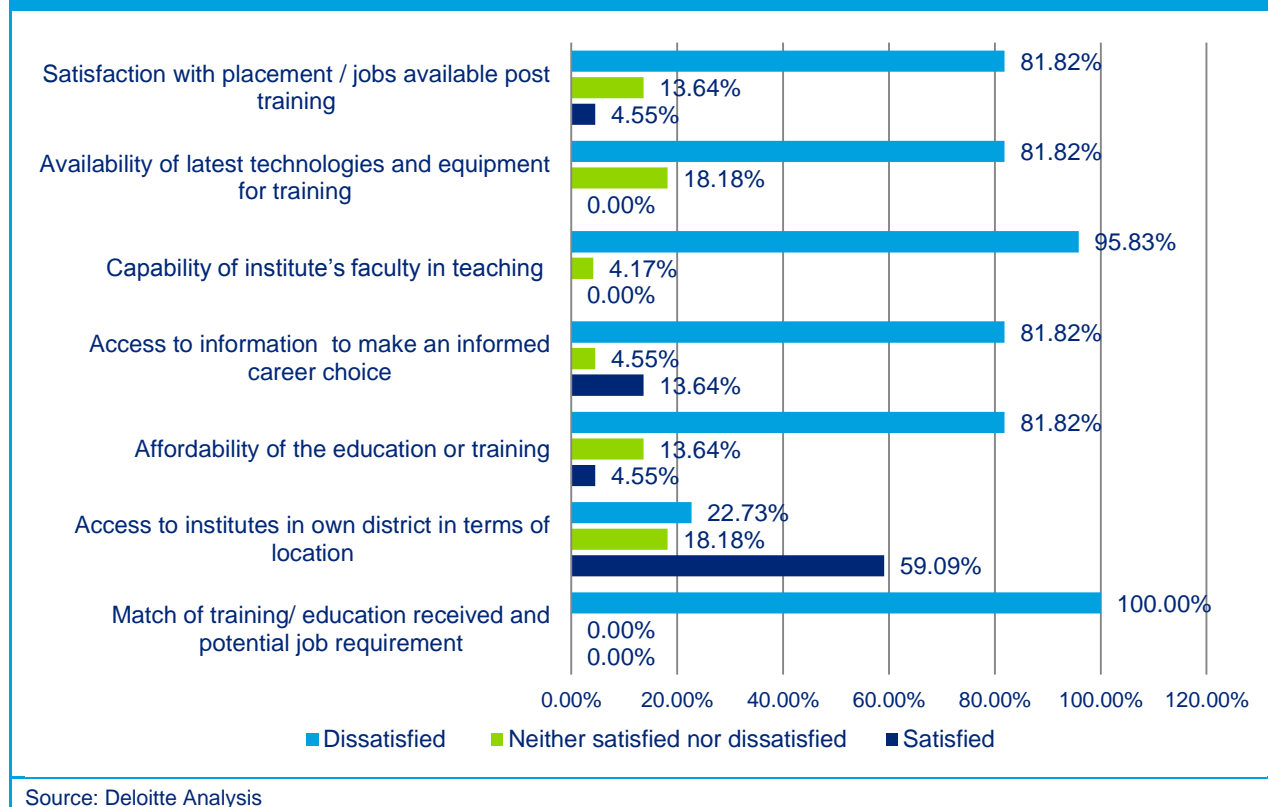
Need for better access to information to make an informed career choice: Majority of the students were dissatisfied as far as access to information to make an informed career choice is concerned. Only 14% of the students vouch for accessibility to information to make an informed career choice, while around 82% of them felt that they did not get proper accessibility to information to make an informed career choice. This showcases the importance of having career counseling to the potential students either at the school level or at the respective vocational institutes.

Affordability is as high concern as quality and value for money in education or training: Majority of the students surveyed (around 82%) felt that the fee charged by the education/ training institute is a concern for them. Moreover, they emphasized that the quality of training programme offered should be commensurate with the fees charged.

Access to institutes is an issue in rural areas: 59% of the students surveyed expressed their satisfaction with the accessibility of the educational institutes in terms of location. They found the institute

to be located in an accessible area and safe in terms of the duration of classes. Around 23% students felt the educational institutes to be inaccessible in terms of location and majority of them were rural youth.

Figure 132: Youth Perception Mapping, Bijapur



Dissatisfaction with the alignment of training/education received with job requirements:

Approximately all the students surveyed emphasized that there is a need to align the training/education provided by the educational institutes in the district in terms of job requirements of the business.

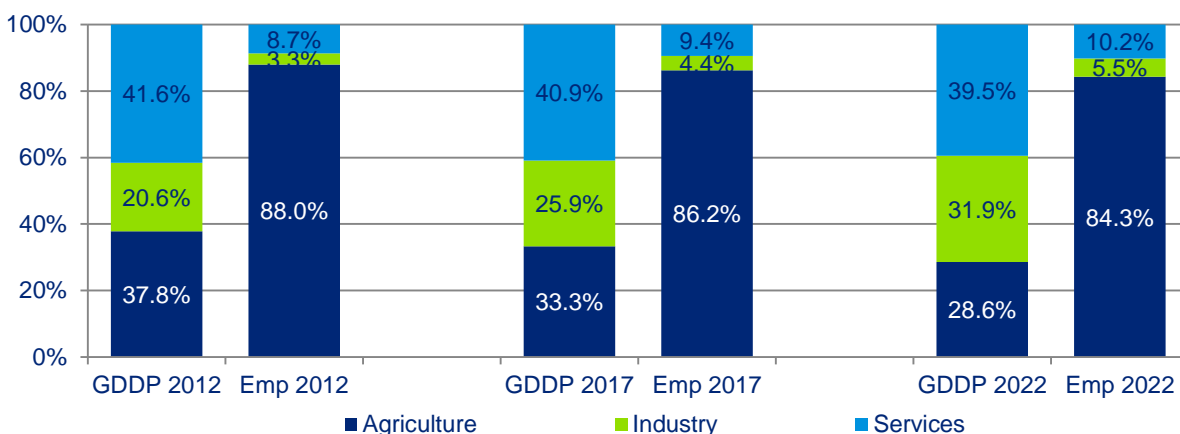
Key Observations:

- Govt. Jobs were preferred over private, the expected salary ranges of around Rs. 10,000/- per month
- Around 55% of the youth surveyed wanted to get a job within Chhattisgarh thus necessitating the creation of suitable positions and absorption capacity for them in the employment market.
- The majority of the students surveyed quoted the availability of better teaching facilities in the educational institution as their prime parameter while selection of an institute for higher education.
- In terms of course preference, women are interested in job oriented courses like beauty parlor, tailoring and sewing home science etc. Teaching is also one of the preferred professions amongst the women. Boys are interested in learning computer related courses and new agriculture related techniques. Some are interested in mobile repairing, driving etc. as well.
- Need to address Infrastructure gaps - particularly updating the library and laboratory with latest computers, tools and equipment was expressed.
- The need for career counseling prior to admissions was strongly expressed by the youth.

4.6.7 Skill Gap Assessment

The working age population (15-59) constituting 62.3% of total district population in 2011, is expected to increase to 66.6% by 2022. Demand for jobs is expected to increase leading to the need for job creation. Similarly, to reap this demographic dividend, supply of labour must be adequately skilled.

Figure 133: Comparison of Sectoral share in GDDP & Employment, Bijapur



Source: Deloitte Analysis

The above figure also depicts the significant disparity in the structures of economy and employment in the district. Based on our analysis and primary interactions, the Agriculture sector is expected to be an important sector in terms of providing employment in the district and would account for the largest share of workforce over the decade. If the trends in employment continue, in 2021-22, the share of employment across the Agriculture sector is expected to decline to 84.3% as compared to 88% in 2012.

The Industry and Services sector employment share are estimated to increase to 5.5% and 10.2% respectively, as indicated in the table above. This trend appears to be in line with the national trend as well where people are moving out of the Agriculture sector and moving into the Industry and Services sectors respectively.

Incremental Human Resource Demand

As per the methodology, the total incremental demand for manpower in Bijapur from 2012 to 2022 is expected to be around 0.15 lakhs. Following table provides the break-up of the incremental demand for manpower in Bijapur as per skill level required.

Table 117: Estimated Incremental Human Resource Demand ('00) by Skill Level in Bijapur

	2012-17	2017-22	Total
Skilled	11	12	23
Semi-Skilled	17	19	36
Minimally Skilled	43	43	86
Total	71	74	145

Source: Deloitte Analysis

Some of the key trends observed on the demand side include

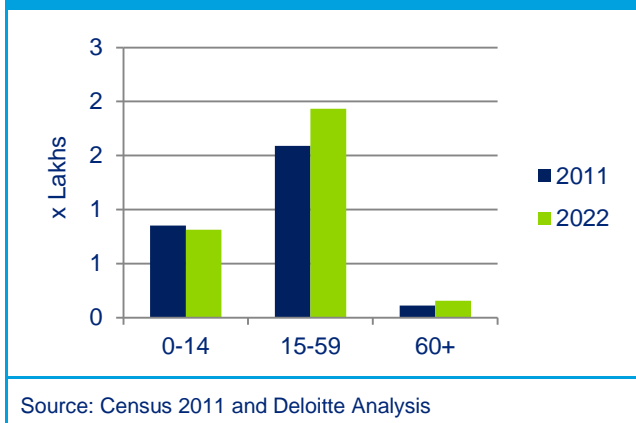
- ♦ *Agriculture will be the largest incremental demand generating sector (45%) with demand largely in the minimally skilled level.*
- ♦ *Within the Industries sector, the greatest incremental demand on employment is expected to come from the construction sector (18.2%) followed by Handloom and Handicrafts (including Furniture & Furnishing) (3.2%).*
- ♦ *Within the Services Sector, Public administration is expected to contribute about 6.9% of the total incremental demand for employment, followed by BFSI (4.1%) and Education/ Skill development services (3.2%)*
- ♦ *Analysis of formal and informal employment indicates that the incremental demand for manpower in formal sector would come mainly from Building and Construction, Public Administration, BFSI, and Education/Skill Development Services and.*
- ♦ *Majority of demand for incremental manpower in the informal sector is projected to come from Agriculture, Construction, Allied activities and handlooms and handicrafts sector.*

Table 118: Incremental Human Resource Demand ('00) by Skill Level in Bijapur - Key Sectors

#	Sector	2012-17				2017-22			
		Skilled	Semi-skilled	Minimally Skilled	Total	Skilled	Semi-skilled	Minimally Skilled	Total
1	Agriculture	1	3	29	34	1	3	27	31
2	Building & construction	2	5	5	11	2	6	7	15
3	Public Administration	3	1	1	5	3	1	1	5
4	Allied activities	0	0	3	3	0	0	3	3
5	Banking/ Insurance/ Finance	1	1	0	2	2	1	0	3
6	Education/ Skill development services	2	0	0	2	2	0	0	2
7	Handloom and Handicrafts (including Furniture & Furnishing)	0	1	1	2	0	1	1	2
8	Others	2	5	4	11	3	5	4	12
	Total	11	17	43	70	12	19	43	73
Overall Incremental Demand					144				
Source: Deloitte Analysis									

Incremental Human Resource Supply

Figure 134: Age wise distribution of population, Bijapur 2011 and 2022 (projected)



The population of Bijapur is expected to increase from 2.5 lakhs in 2011 to 2.9 lakhs in 2022. The adjacent figure provides the current and projected population across various age groups. As per the analysis, the number and proportion of children in 0-14 age group is projected to fall by about 0.04 lakh children, while the number of persons in the working age group is expected to increase by 0.34 lakh during the same period. This represents a potential demographic dividend for the district with a large increase in the employable population. On the other hand, it presents a huge challenge for the state to make available higher education and skill development facilities as well as ensure

productive employment opportunities for its population.

As per the methodology, the estimated total incremental manpower supply in Bijapur over the decade (2012-2022) will be about 0.38 lakhs. Incremental manpower supply from various educational and vocational training institutes in the district can be further classified into skilled, semi-skilled and minimally skilled as per the educational qualifications.

Table 119: Estimated Incremental Human Resource Supply (in '00s) by Skill Level in Bijapur

	2012-17	2017-22	Total
Skilled	12	13	25
Semi-Skilled	67	75	142
Minimally Skilled	111	98	209
Total	190	186	376

Source: Deloitte Analysis

Some of the key trends observed on the supply side include

- ♦ Proportion of incremental supply of minimally skilled manpower is 55.7%, compared to 37.8% of skilled and 6.6% of semi-skilled manpower (2012-22)
- ♦ Bijapur has small number of higher education institutes (0.3%) in the state.
- ♦ Bijapur has 1 out of 180 ITIs in the state
- ♦ Impact of Migration is expected to be inward and accounts to around 1.4% of the supply. According to primary interactions, inward migration is both in minimally skilled and semi-skilled jobs in building & construction and manufacturing sectors

Incremental Demand Supply Gap

During the period 2012-22, the incremental demand supply gap of the district (across all sectors mentioned above) is expected to be a surplus of 0.24 lakh people (refer table below). There is assessed to be an excess supply across all skill segments.

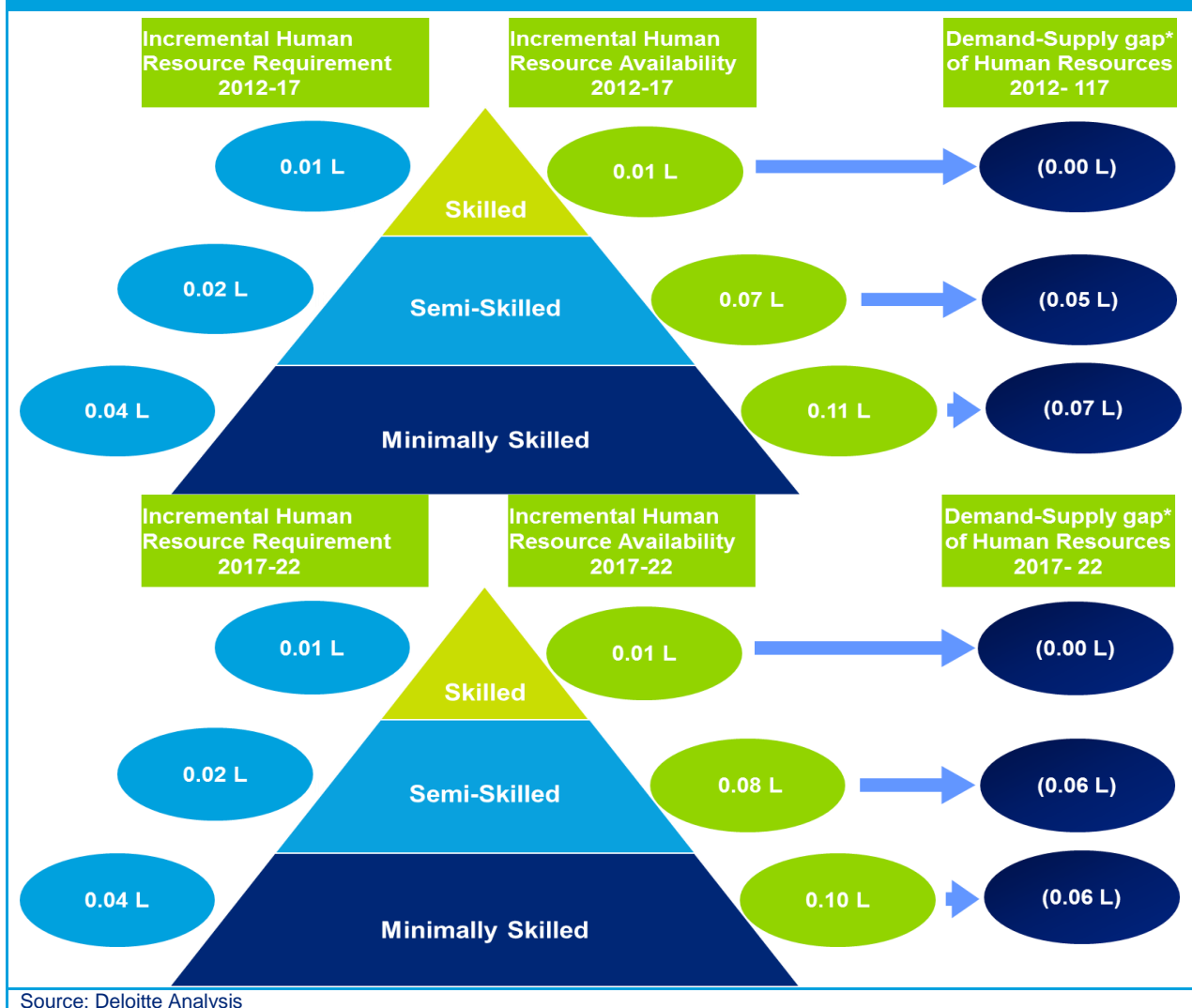
This means the rate of creation of employment in the district has to be augmented with suitable government initiatives in order to absorb the supply of workforce projected to enter the job market.

Table 120: Projected Demand Supply gap (in '00s) by skill levels in Bijapur

#	District Skill Gap	2012-17				2017-22			
		Skilled	Semi-skilled	Min. Skilled	Total	Skilled	Semi-skilled	Min. Skilled	Total
1	Incremental HR Requirement (Demand)	11	17	43	70	12	19	43	73
2	Incremental HR Availability(Supply)	12	67	111	190	12	75	98	186
3	Demand-Supply Gap	(1)	(50)	(68)	(120)	(0)	(56)	(55)	(112)
Overall Demand-Supply Gap					(232)				
Source: Deloitte Analysis									

During the period 2012-22, the incremental manpower demand supply gap of the district (across all sectors mentioned above) is expected to be about 0.23 lakh with the excess supply across all skill segments as shown in the following figure.

Figure 135: Incremental Demand-Supply Gap (in lakhs), Bijapur



Some of the key trends observed on the demand-supply gap include

- The composition of the human resource demand supply gap over the two different time periods i.e. 2012-17 and 2017-22 is anticipated to remain the same.
- The excess supply in the skilled segment is expected to continue over the decade. This is in line with low demand for skilled workers in the district. Due to the excess supply, skilled workers may need to seek job opportunities outside the district.
- The trend of excess supply is likely to continue in the semi-skilled segment across both the periods indicating greater conversion of the minimally skilled workforce into semi-skilled. Youth (especially males) in the district have indicated that they are open in seeking employment outside the district.
- Minimally skilled sector has the highest excess supply of labour over the years. However the skill gap is expected to decrease over the period with more people moving from the minimally skilled to semi-skilled section due to government initiatives.
- Primary interactions have raised employability & deficit in specific jobs/ skills as concerns despite high overall supply in skilled and semi-skilled levels. These have been given in the qualitative skill gaps section below.

Qualitative Skill Gaps

The qualitative skill gaps that were highlighted during our primary interactions with industry at Bijapur are given in the table below.

Table 121: Qualitative Skill Gaps

Sector	Level	Skill Gap
Agriculture	Tractor operator and mechanics/ Electricians/ Mechanics for repair & maintenance of agricultural tools & implements	<ul style="list-style-type: none"> • Sufficient training to address tool & equipment failures like motor pump failure, gear damage, tyre puncture etc.
	Project Managers/Engineers	<ul style="list-style-type: none"> • Knowledge of design and tools such as AutoCAD etc. • Knowledge of green/eco-building design • Project Management and People Management Skills • Knowledge of appropriate safety practices
Building & construction	Supervisors: plumbing, electrical, carpentry, masonry, drilling	<ul style="list-style-type: none"> • Skills in civil- operations of ready mix m/c, earth movers etc. • Basic repair and maintenance • Exposure to right methodology in construction specific skills like lining, leveling etc. • Site safety concepts and procedures
	Workmen: plumbing, electrical works, carpentry, masonry, drilling	<ul style="list-style-type: none"> • Basic operating skills related to relevant category • Improved/ better quality in finishing • Site safety concepts and procedures • Ability to understand & follow instructions/ manuals
	Business Facilitator / Correspondent Direct Selling Agents	<ul style="list-style-type: none"> • Correct knowledge of products; • Customer need assessment and Advisory Skills
BFSI	Financial Advisors	<ul style="list-style-type: none"> • Communication and Selling Skills • Customer service and Inter personal skills
	Billing Associate/ Accountants/ Computer operators	<ul style="list-style-type: none"> • Knowledge of transaction processing software and cash management • Knowledge of tally/accounting practice
	Sales/Customer Service personnel	<ul style="list-style-type: none"> • Product specific knowledge • Customer service and Inter personal skills

4.6.8 Recommendations

Future Growth Opportunities in Bijapur

In the context of the current economic profile and proposed investments of the district, the demand for human resources at various skill levels has been analyzed. The observations have been augmented by primary interactions with industry & industry association representatives in the district and government officials at the state and district level. Based on our analysis and considering factors like high growth and employment potential, priority sector for the state government, investment trends, etc., the following sectors/industries have been identified with future growth opportunities for employment and subsequently, skill development in Bijapur.

Table 122: Key Growth Sectors - Bijapur

#	Priority Sectors	Growth opportunities in skills development and employment
1.	Agriculture	<ul style="list-style-type: none"> Agriculture currently provides employment to around 85.6% of the workers in the district. It is anticipated to be the residual & largest incremental employer in the district accounting for around 45% of the total incremental demand for manpower. Cultivation of paddy along with production of different varieties of pulses and oilseeds is expected to employ a significant section of the workforce.
2.	Building & construction	<ul style="list-style-type: none"> Construction is another major contributor in the district economy that is expected to grow at 11.9% (2012-22). Total budgeted value for ongoing construction activities (building and roadwork) in Bijapur for 2013-14 is allocated at Rs. 80 crores¹⁸⁴. About 18.2% of the total incremental demand is expected to come from building and construction activities in the district providing good opportunities for job creation during 2012-22.
3.	Public Administration	<ul style="list-style-type: none"> Public administration is the third highest contributor to the district economy that is expected to grow at 4.9% (2012-22). It accounts for 6.9% of the total incremental demand from 2012-22. It accounts for more than 26% of the incremental human resource requirement for skilled manpower in the district over the decade 2012-22
4.	Banking/ Insurance/ Finance	<ul style="list-style-type: none"> BFSI was one of the highest growing sectors of the state with a CAGR of 8.6% over the years 2012-22. The significant share of skilled workforce (both current and incremental) provides ample opportunities for skill development institutes.
Source: Deloitte Analysis		

Considering the economic and skill landscape of Bijapur, the table below indicates the priority areas of focus for key stakeholders involved. These observations have been mainly derived from the growth opportunities identified above and through primary interactions with industry and industry association representatives in the district along with inputs from the students, training institutes and government.

¹⁸⁴ Chhattisgarh Public Works Department

Table 123: Key Recommendations for Stakeholders – Bijapur

Stakeholder	Priority Areas
NSDC	<p>NSDC can focus the efforts of its training partners in the key sectors identified in the district, viz.</p> <ul style="list-style-type: none"> ✦ Agriculture & allied activities ✦ Building and Construction ✦ BFSI ✦ Manufacturing – Handloom & Handicrafts
Private training providers	<ul style="list-style-type: none"> ✦ Since a majority of the population in the state is dependent on Agriculture, the private training providers should focus on training or providing extension support services in agricultural products processing, forestry and animal husbandry (including dairy & poultry) for the workers dependent on the sector. ✦ There is a need for capacity development of the current trainers through mentorship and Train the Trainer (TTT) programs. The private training providers should collaborate with sector specific Mentor Institutions for Capacity Development and Training programs (short term and long term) of trainers. ✦ For skill up gradation of existing workers as well as for improving their productivity, training is required with a focus to develop multi-function skills. The private training providers can introduce/ substantiate multi-disciplinary courses in sectors such as trade, food processing etc. ✦ There is a need for design and delivery of bridge courses with a focus on communication, language, basic IT and soft skills to make students job ready as highlighted by the youth of the district during youth interaction.
Government	<ul style="list-style-type: none"> ✦ The Government should promote and endorse vocational education as a practical alternative to formal education with emphasis on providing job ready courses. ✦ The Directorate of Horticulture & Farm Forestry should arrange training and extension activities on areas like organic farming, soil conservation techniques; pest management etc. in the district owing to the dependence of the majority of the population on Agriculture. These training activities should be undertaken in tie-ups with the VTP's as well as NSDC partners operational in Bijapur. ✦ Unavailability of information is one of the key concerns highlighted by youth in the district. For addressing the same, the regional DET offices and employment exchanges should collaborate together and arrange awareness campaigns in the district with focus on providing information on the VTP/Skill development institutes in the district along with the courses offered, registration process, course requirements, future job opportunities etc. It should be followed by at least one annual job fair in the district organized in collaboration with industry. ✦ Furthermore, the CSSDA can set up awareness camps and temporary training centers within villages to provide skill development trainings to the youth. Inaccessibility to the training institutes was also one of the major concerns highlighted by the rural youth in the district.
Industry	<ul style="list-style-type: none"> ✦ More industry interactions should be initiated in the Building & Construction, Agriculture and Manufacturing (furniture & handicrafts) sectors in the district. ✦ The major private players as well as public sector enterprises in the state should undertake and encourage vocational training as part of their CSR activities either by partnering with the Skill Development Institutes for training or providing funds/resources for the same. ✦ Industry players should participate in improving upon the current course curriculum as observed in the youth survey where around 100% of the respondents quoted that the current education/training received by them is not in alignment with the potential job requirements.

4.7 Bilaspur

4.7.1 District Profile

Bilaspur district is located in the northern portion of the Chhattisgarh plain or upper basin of the Mahanadi. The district is a part of Bilaspur division. Mungeli district was carved out of Bilaspur in the year 2012. It is surrounded by Koriya on the north, Madhya Pradesh on the west, Mungeli on the southwest, Baloda Bazar on the south and Korba and Janjgir-Champa on the east. It extends over an area of 6088 sq. Km¹⁸⁵, which is 4.5% of the total state area. The district is divided into 8 blocks, 557 gram panchayats 7 Janpad panchayats. The district headquarter is Bilaspur city. It is the second largest city of the state and is called the Nyaydhani (legal capital) of Chhattisgarh. The high court of Chhattisgarh is located here. The main rivers of the district are Sheonath, Arpa and Maniyari.

Map 8: Bilaspur District



Apart from its rich cultural heritage, Bilaspur district is also known for its pulses and rice.

Forests account for 30.16% of the total geographical area of the district¹⁸⁶. The forest cover of Bilaspur is lower than the state average & comprises of very dense forest (13.6%), moderately dense forest (65.1%) and open forest (21.4%)¹⁸⁷.

Table 124: Bilaspur District Profile

#	Indicator	Bilaspur	Chhattisgarh	% Share
1.	Area, in sq.km.	6088 ¹⁸⁸	135,190	4.5
2.	No. of sub-districts	8	149	5.3
3.	No. of inhabited villages	898	20126	4.5
4.	No. of households (lakhs)	4.42 ¹⁸⁹	56.51	7.8
5.	Average Land holding size (Ha)	1.31*	1.17	-
6.	Forest area cover	30.16%*	41.18%	-
Source: Census 2011, Directorate of Economics and Statistics- Govt. of Chhattisgarh, State of Forest Report 2011-Forest survey of India; Deloitte Analysis; * Data is for undivided Bilaspur (including Mungeli)				

¹⁸⁵ Deloitte Analysis

¹⁸⁶ State of Forest Report 2011-Forest survey of India (Data is for undivided Bilaspur which includes Mungeli)

¹⁸⁷ ibid.

¹⁸⁸ Deloitte Analysis

¹⁸⁹ Divided according to the population ratio of Bilaspur & Mungeli

4.7.2 Demography

As per Census 2011, Bilaspur has a population of 19,60,466 of which 68.7% of the people reside in the rural areas¹⁹⁰. The decadal population growth in Bilaspur during 2001-2011 was 31.5%¹⁹¹, which is much higher than the population growth of 17.9% during the period 1991-2001¹⁹². As of 2011, Bilaspur is the second most populous district of Chhattisgarh after Raipur. The population density and urban share of population is much higher than the state. About 59.8% of the population is in the working age population class group.

Table 125: Demographic Indicators of Bilaspur

Demography	Bilaspur	Chhattisgarh
Population (2011)	19,60,466	2,55,40,196
Population 15-24 (2011)	3,98,230	49,89,339
Decadal Population Growth Rate (2001-11)	31.5%	22.6%
Population density per sq. km (2011)	322*	189
Percentage of Urban Population (2011)	31.3%	23.2%
Percentage of SC population (2011)	20.8%*	12.8%
Percentage of ST population (2011)	18.7%*	30.6%
Average household size	4.32*	4.54
Sex Ratio (2011)	971	991
Working age population (15-59) as a percentage of total population, %	59.8%	60.1%
Per Capita Income (2008-09)	Rs. 23023 ¹⁹³	Rs.28263
Source: Census of India 2011; Directorate of Economics and Statistics- Govt. of Chhattisgarh & Chhattisgarh		
* Data is for undivided Bilaspur (including Mungeli)		

Key Observations:

- ♦ Bilaspur is the second most populous district of Chhattisgarh and has registered the third highest decadal population growth over the period 2001-11 in the state.

¹⁹⁰ Census 2011

¹⁹¹ Deloitte Analysis

¹⁹² Census 2001 (Data is for undivided Bilaspur-including Mungeli)

¹⁹³ At 2004-05 constant prices, Deloitte Analysis

4.7.3 Economic Profile

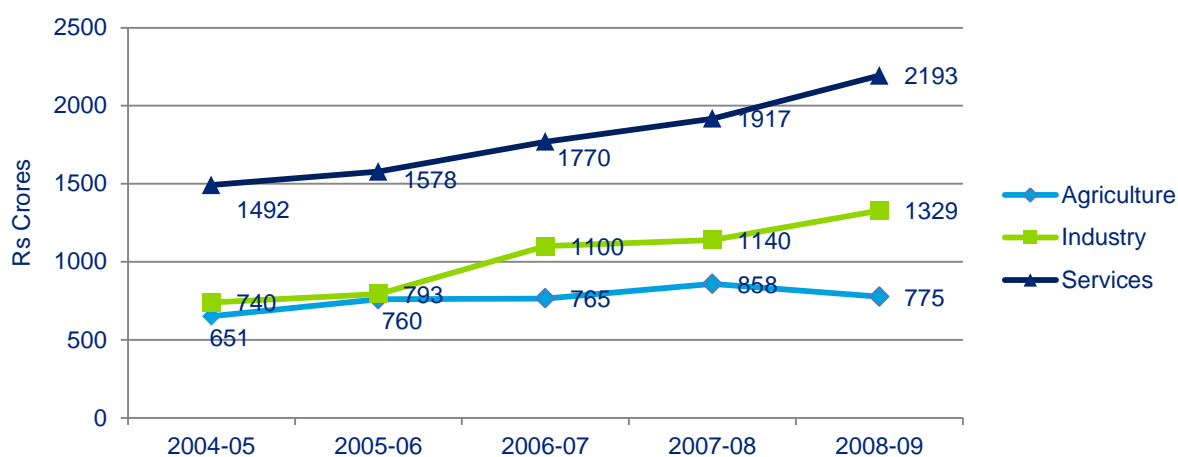
GDDP of Bilaspur in the period 2004-05 and 2008-09 has grown at a CAGR of 10.5% which is higher than the state growth rate of 9.6% in the corresponding period.

At Rs 4297.40 crores, Bilaspur ranked 5th in the state in terms of economic activity in 2009. Bilaspur contributed 6.23% to the Gross State Domestic Product in the same year.

The economy of Bilaspur district is pre-dominantly Services Sector based, **with Services Sector's share in GDDP being 51.0% in 2008-09**. This is followed by Industry Sector, which shows a consistent growth over the period 2005-09 and has 30.9% share in the GDDP. Agriculture Sector has a share of 18.0% and shows a declining trend in the district economy. The Industry sector has shown the highest growth rate in the district over the period 2005-2009 with a CAGR of 15.8% followed by Services and Agriculture sectors which registered a CAGR of 10.1% and 4.5% respectively.

The sector-wise GDDP growth and distribution from 2005-09 is given in the figures below:

Figure 136: Sectoral Share of GDDP, 2004-05 to 2008-09, Bilaspur



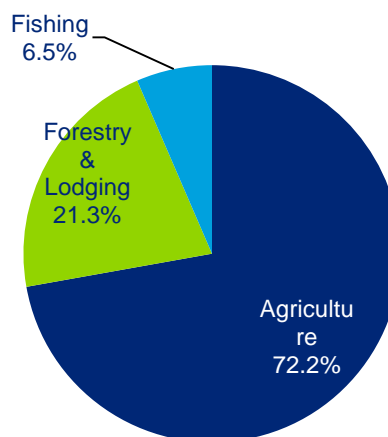
Source: Directorate of Economics and Statistics- Govt. of Chhattisgarh (2004-05 base price) and Deloitte Analysis

Agriculture Sector

The contribution of Agriculture Sector (agriculture, forestry & logging and fishing) to GDDP was 18.0% in 2008-09. Agriculture is the main contributor in the total output of the Agriculture Sector contributing about 72.2% in the year 2008-09.

The high contribution of agriculture can be contributed to the presence of cultivable land present in the parts of Kota, Masturi, Bilha and Takhatpur block. The main crops grown in the district during Rabi season are paddy, arhar, moong, groundnut and Til while wheat, maize, gram, masur, Urad etc. are the chief crops grown in Kharif season. Bilaspur is a National Food Security Mission (NFSM) district for pulses. The sub-tropical, semi-arid, continental and monsoon type climate of Bilaspur is suitable for the growth of crops like wheat, rice, sugarcane and cotton. **Bilaspur is known for its rice quality.** About 41%¹⁹⁴ of the net sown area is under irrigation and this has further helped in strengthening the agricultural growth. Canal system covers 86.33% of the total irrigated land in the district and the remaining area is irrigated by tube wells, wells, ponds/tanks and other means of irrigation.

Figure 137: Sub-sectoral break-up in Agriculture Sector (2008-09), Bilaspur



Source: Directorate of Economics and Statistics- Govt. of Chhattisgarh, Deloitte Analysis

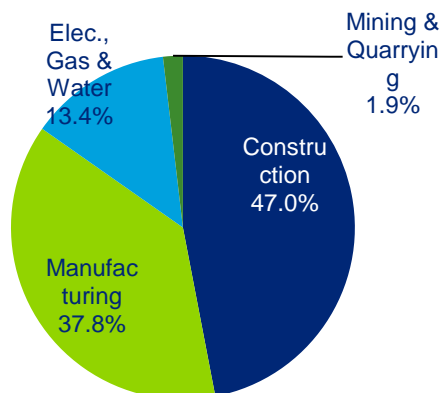
The district is also one of the leading districts in Chhattisgarh from the point of view of **horticulture**. Mangos, lemons, papaya, banana, litchi, potato, onion, ladies finger, Brinjal, tomato, cabbage, chilly, and ginger etc. are grown in abundance here.

People also earn their livelihood through collection of minor forest produce. Bilaspur falls under the Bilaspur forest circle and the important non nationalized species available in the district are Imlī, Mahulpatta, Mahua, Kusum (oil seed), Kusum (Lac), Karanj, Chironjee, Shahad, Aonla, Baheda, Dhawai, Bel, Baibiding, Kalmegh, Malkangni, Bhelwa, Marorfalli, Nagarmotha and Palash.

Industry Sector

The Industry Sector (mining & quarrying, manufacturing, construction, electricity, gas and water supply) contributed 30.9% to the GDDP in 2008-09. Construction was the highest contributor to the sector with a sectoral contribution of 47.0%. Manufacturing is also a major contributor within the Industry Sector, with a share of about 37.8%.

Figure 138: Sub-sectoral break-up in Industry Sector (2008-09), Bilaspur



Source: Directorate of Economics and Statistics- Govt. of Chhattisgarh, Deloitte Analysis

¹⁹⁴ Directorate of Economics and Statistics, Govt of Chhattisgarh

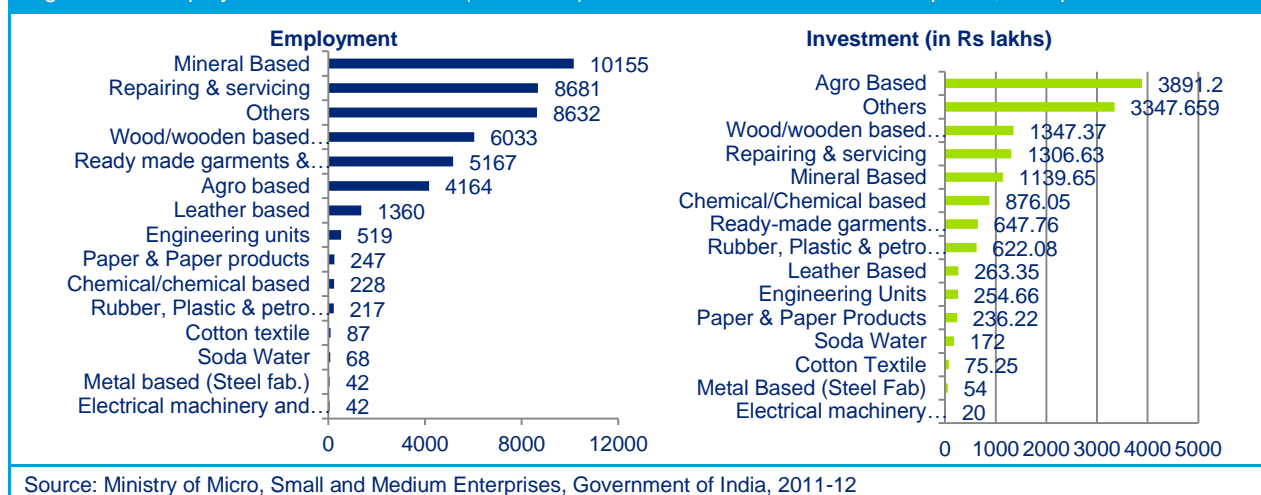
Chhattisgarh State Industrial Development Corporation (CSIDC) has developed an industrial growth centre at **Sirgitti** spread over an area of 338 hectares housing more than 200 large, medium and small scale units. Bilaspur also has **established industrial areas at Tifra** (situated on the outskirts of Bilaspur city on National Highway 200 and spread over an area of approx. 65 hectares) and **Anjani** (spread over an area of approx. 48 acres) for the promotion of industries in the district. Furthermore, CSIDC has taken steps to develop Silaphari situated near Bilaspur which houses some of the sponge iron industries into a fully functional Large Industrial Area. The Government has also announced the establishment of a Large Industrial Area in Bilaspur over an area of 795 hectares with an approved project cost at Rs. 59.13 crores.

In an effort to promote and develop the Micro, Small and Medium enterprises in the state, **Integrated Infrastructure Development (IID) Centres (for Small Scale Industries) are also being developed at Tifra**. It has more than **200 large, medium and small scale units**. The regional headquarter of Chhattisgarh State Electricity Board is also in Bilaspur. It is the second largest jurisdiction for supply of electricity in Chhattisgarh. **NTPC has a plant in Sipat, Bilaspur with a commissioned capacity of 2980 MW**. The presence of SECL in the district also paved way for establishment of many ancillary units. As per the MSME-Development Institute, Raipur, 64 units are ancillary to SECL in the district.

As per the list of MoU's shared by the State Investment Promotion Board (As on 31-03-2011), all the **investments proposed in the district are for installation of Sponge iron and cement units**, both of them being **highly capital intensive** industries. A total investment of Rs. 5576 crores is proposed for installation of sponge iron units while a total investment of Rs. 3274 crores is proposed in cement industry in the district. This indicates the significant potential for growth in the Industry Sector in the district. The sops announced by the government in FY 2014 budget (VAT on TMT steel bars reduced from 5% to 3%, entry tax on iron ore pellet, pig iron and steel scrap cut from 1% to 0.5% & reduced entry tax on furnace oil purchased from outside the state from 10% to 5%) would help in further strengthening the steel sector.

The district **is also a power hub**, which is an essential requirement for the construction sector. A total budgeted value for ongoing building and construction activities (building and roadwork) in Bilaspur for the year 2013-14 allocated at Rs. 768 crores¹⁹⁵ shows the current focus of the district on the sector.

Figure 139: Employment and Investment (Rs. Lakhs) in units of micro and small enterprises, Bilaspur



Source: Ministry of Micro, Small and Medium Enterprises, Government of India, 2011-12

¹⁹⁵ Chhattisgarh Public Works Department

The investment in micro and small enterprises in the district is captured in the figure above. The key micro and small industries in the sector in terms of manpower employed are mineral based units, repairing and servicing entities, other manufacturing units, wood/wooden based furniture units, and ready-made garments & embroidery units. The key micro and small industries in the district in terms of investments (Rs. Lakhs) include agro based units, other manufacturing units, wood/wooden based furniture units, repairing and servicing entities and mineral based units.

Owing to the fact that **Bilaspur is a railway zone** along with the presence of SECL, Chhattisgarh State Electricity Board, NTPC, etc. makes it one of the **leading districts of Chhattisgarh in terms of industrial development**. Infrastructure growth as a result of government initiatives is also contributing to the growth of GDDP.

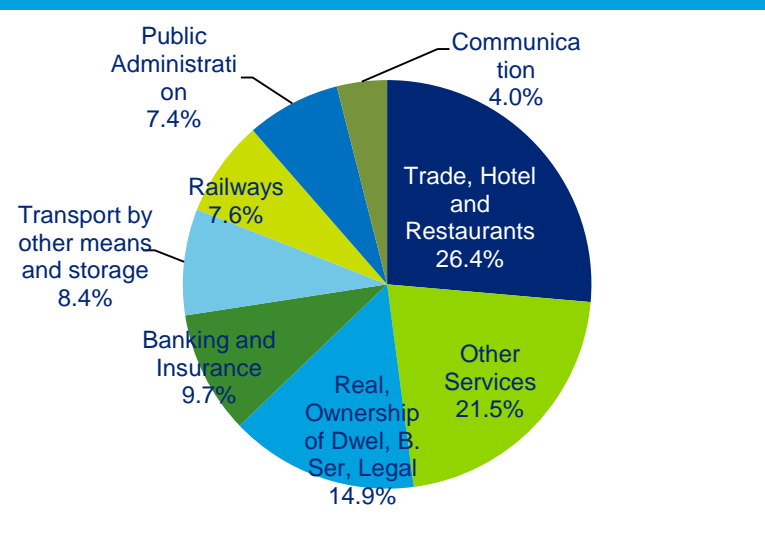
Bilaspur is also famous for production of handicrafts. The major handicrafts manufactured in the district include wood-carving, terracotta, bamboo items, dry flower etc. There are about 25 handicraft clusters in Bilaspur¹⁹⁶. **Bilaspur has a training centre for sericulture, which is one of the largest in the state.** The headquarters of **Basic Tasar Silkworm Seed Organization (BTSSO)** is in Bilaspur. It was established by the Central Silk Board in the year 1998-99 with the objective to strengthen the Tasar silkworm seed sector by vitalizing three-tier seed multiplication system on scientific lines.

Furthermore, Bilaspur has **mineral deposits of Limestone, Dolomite and Coal**. The blocks which have mineral deposits are Chilhati village of Masturi taluk, Kota and Takhatpur. **National Thermal Power Corporation (NTPC) and South Eastern Coalfields Ltd (SECL)**, has its presence in the region. The district also is home to the headquarters of SECL. **Mining is one of the fastest growing sectors in Bilaspur**. The total mineral revenue receipt of the district in 2012-13 was around Rs. 1777.87 lakhs (major minerals: Rs. 952.93 lakhs, minor minerals: Rs. 787.27lakhs & others Rs. 37.67lakhs).

Services Sector

The Services Sector contributes to about 51.0% of the GDDP in the year 2008-09. The key contributor to the sector is trade, hotel and restaurants contributing approximately 26.4% in the Services Sector GDP. The district is **well endowed from the tourism point of view** with archaeological sites like Ratanpur (Kota), Malhar (Masturi) and Talagaon (Bilha) being the main tourist attractions. In Bilaspur, Mahamaya temple at Ratanpur, Khutaghat waterfall, Dindneswari Devi temple of Malhar and the Achanakmar wildlife

Figure 140: Sub-sectoral break-up in Services Sector (2008-09), Bilaspur



Source: Directorate of Economics and Statistics- Govt. of Chhattisgarh, Deloitte Analysis

¹⁹⁶ Chhattisgarh Handicrafts Sector Profile, Chhattisgarh Handicrafts Sector Meet-2012

sanctuary are the places of tourist interest.

On the transport front, the **South East Central Railway zone with the headquarters in Bilaspur** was created in 2003. Coal from the mining activities in Korba is transported to rest of the country via Bilaspur.

The district is well connected to the rest of the state by means of rail and road networks. **NH 200, which connects Raipur, the state capital to Chandikol in Odisha**, passes through Bilaspur.

With a CAGR of about 19.8% and 16.9% over the period from 2004-2009, banking & insurance sectors and communication respectively were among of the fastest growing sectors in the district, though their absolute sizes are small.

Key Observations:

- The economy of Bilaspur district is pre-dominantly Services Sector based, **with Services Sector's share in GDDP being 51.0% in 2008-09**. This is followed by Industry Sector, which shows a consistent growth over the period 2005-09 and has 30.9% share in the GDDP.
- Agriculture Sector has a share of 18.0% and shows a declining trend in the district economy.
- The Industry sector has shown the highest growth rate in the district over the period 2005-2009 with a CAGR of 15.8% followed by Services and Agriculture sectors which registered a CAGR of 10.1% and 4.5% respectively.

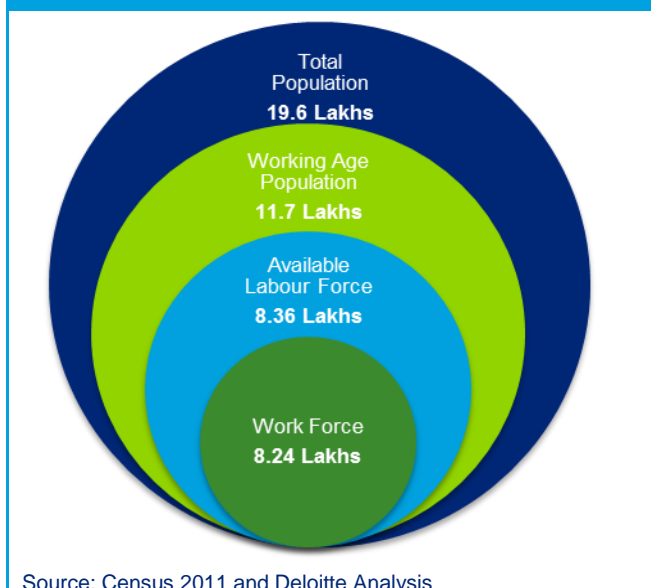
4.7.4 Employment Profile

Bilaspur is the 2nd most populous district in Chhattisgarh in the year 2011, accounting for around 7.68% of the state's population.

The adjacent figure summarizes the estimated workforce in Bilaspur in the context of the total population of the district. Out of the total population of 19.6 Lakhs, the working age population (between 15-59 age group) constitutes nearly 60%.

Based on the labor force participation rate and the worker participation rate estimates for the state, the available labour force is estimated to be 8.36 lakhs, and the workforce is estimated at 8.24 lakhs or nearly 70% of the working age population.

Figure 141: Total Workforce in Bilaspur (2011)

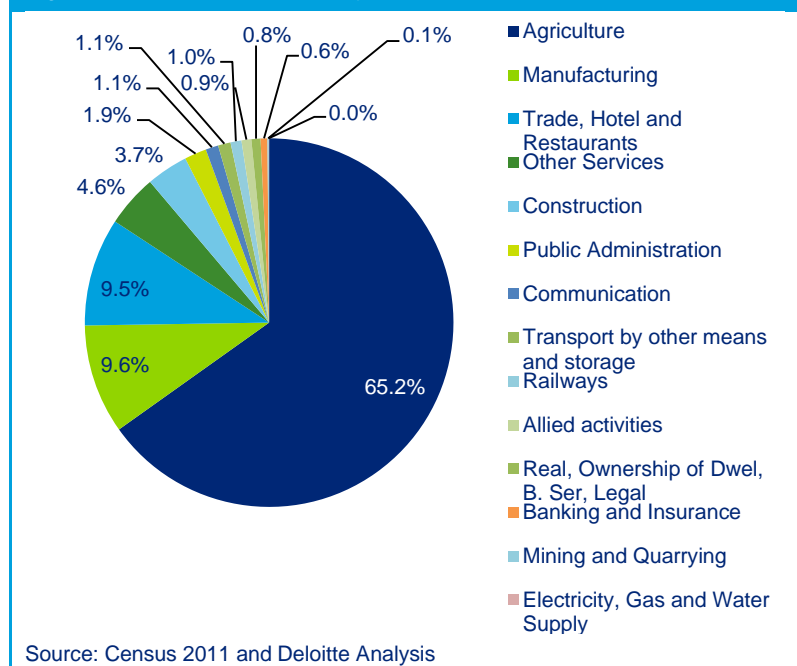


Agriculture sector was the highest employer in the district in 2011 employing around two-third of the total available workforce though the sectoral contribution in the district economic profile during the same period was least at around 15.1% of the Gross District Domestic Product. While the services sector contributed around 46.4% to the GDDP in the year 2011, it employed 20.6% of the total available workforce. Services sector was the 2nd highest employer in the district in 2011 while in terms of economic activity it was the chief contributor to the GDDP. The industry sector contributed around 38.5% to the GDDP in 2011 and employed approximately

13.4% of the total available workforce thereby assuming 3rd position in Bilaspur in terms of employment share.

The sector-wise employment of Bilaspur for the year 2011 has been shown in the adjoining figure. Agriculture accounted for around 65.2% of the total employment in the district followed by manufacturing (9.6%), trade, hotels and restaurants (9.5%), other services (4.6%) and construction (3.7%). The top five sectors in the district in terms of employment account for around 93% of the total employment of the available workforce in Bilaspur in 2011.

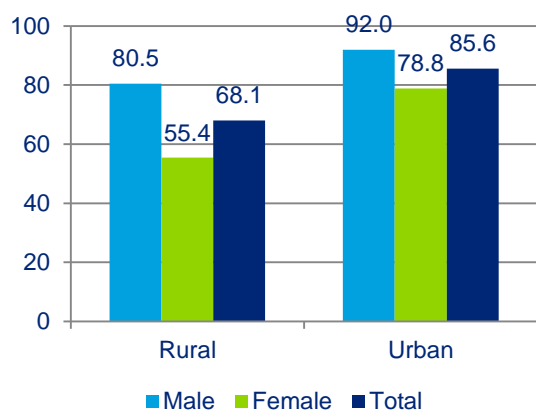
Figure 142: Sector wise employment in Bilaspur (2011)



4.7.5 Education Infrastructure

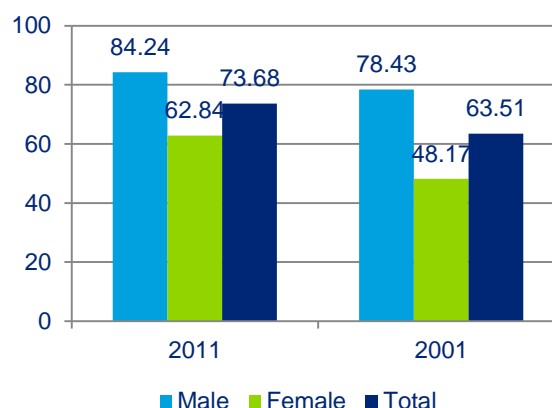
The literacy rate in Bilaspur has significantly improved from 63.5%¹⁹⁷ in 2001 to 73.7% (Deloitte Analysis) in 2011. It is slightly higher than the state's literacy rate of 70.3% in 2011 and is comparable to the all-India literacy rate of 73%. In 2011¹⁹⁸, male and female literacy rates stood at 84.24% and 62.84% respectively, both figures considerably improving since 2001¹⁹⁹, where the figures stood at 78.4% and 48.2% respectively.

Figure 143: Literacy rate 2011 (by residence), Bilaspur



Source: Census of India 2011, Deloitte Analysis

Figure 144: Literacy rate 2011 (by Gender), Bilaspur



Source: Census of India- 2001 and 2011, Deloitte Analysis

School Education

Elementary education in the district has considerably improved largely due to the effort of the department of education in collaboration with the Sarva Shiksha Abhiyan. Net enrolment ratio (NER) at the upper primary level (71%) for the year 2010-11 is higher than the state NER of 67.8%.

Table 126: Status of school education infrastructure in Bilaspur, 2013²⁰⁰

#	Educational Statistics	Units in Bilaspur	Units in Chhattisgarh	% Share of District in State
1	Primary School	1965	35588	5.5%
2	Upper Primary School	530	16442	3.2%
3	Secondary School	62	2632	2.4%
4	Higher Secondary School	134	3548	3.8%
5	NER (Primary) (2010-11)	100%	98.0% ²⁰¹	-
6	NER (Upper Primary) (2010-11)	71% ²⁰²	67.8%	-

Source: Bilaspur Govt. website and Directorate of Economics and Statistics, Government of Chhattisgarh

¹⁹⁷ Data is for undivided Bilaspur (including Mungeli)

¹⁹⁸ Deloitte Analysis

¹⁹⁹ Data is for undivided Bilaspur (including Mungeli)

²⁰⁰ www.bilaspur.gov.in/Education.html

²⁰¹ Data is for 2008-09

²⁰² Data is for undivided Bilaspur (including Mungeli)

Vocational Education

For vocational training, Bilaspur has a total of **16 ITI's & ITC's in the district**, of which, 9 are Government Industrial Training Institutes and 7 Private Industrial Training Institutes. Bilaspur has a woman ITI in Koni. The total capacity of the ITIs in the district is 3044. The capacity of the ITIs is 2308 while that of the ITCs is 736. Electrician and Computer Operator and Programming Assistant (COPA) courses have the maximum units affiliated among ITIs.

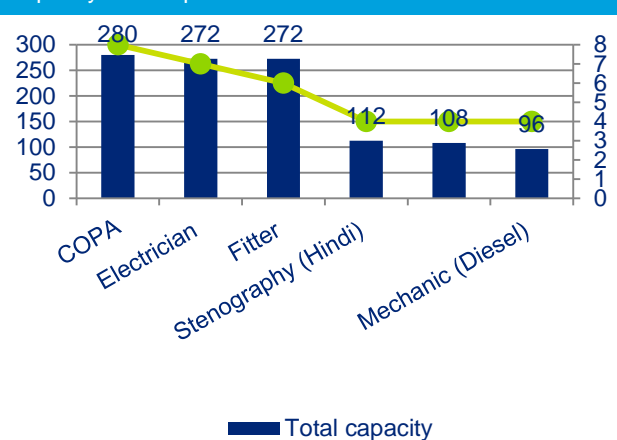
The number of courses available in the Govt. and Private ITIs and their capacity are listed in the table below.

Table 127: ITIs in Bilaspur and their capacity

Name of ITI	Number of courses offered	Total Units affiliated	Total Capacity
Government Industrial Training Institute, Koni-Bilaspur	34	76	1172
Government Industrial Training Institute for Women, Koni-Bilaspur	3	6	112
Government Industrial Training Institute, Marwahi,	3	5	84
Government Industrial Training Institute, Gaurela	8	24	384
Government ITI, Takhatpur	1	1	16
Government ITI, Bilha	6	11	176
Government ITI, Khamaria	6	11	176
Government ITI Pachpedi	5	10	168
Government ITI Kota	1	1	20
Soni Industrial Training Centre	3	14	240
Maharana Pratap Industrial Training Centre	1	8	128
Mahamaya ITC, Ratanpur	1	2	32
Sakshi ITC	3	6	104
Mahamaya ITC, Khamtarai	1	4	64
Balaji Industrial Training Centre	1	8	128
Swayam Prabha Private ITI	1	2	40
Total	40*	189	3044
Source: Department of Higher and Technical Education, Chhattisgarh; Deloitte Analysis			
*Total number of different courses offered by ITI's in Bilaspur			

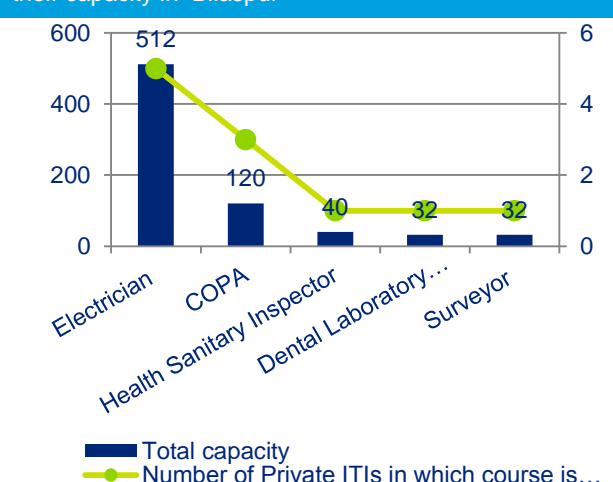
The major courses offered in the ITIs and their capacity in Bilaspur is given in the figure below:

Figure 145: Major courses offered in Govt. ITIs and their capacity in Bilaspur



Source: Department of Higher and Technical Education- Chhattisgarh; Deloitte Analysis

Figure 146: Major courses offered in Private ITIs and their capacity in Bilaspur



Source: Department of Higher and Technical Education, Chhattisgarh; Deloitte Analysis

According to the Chhattisgarh State Skill Development Mission Website, as of 12th March 2014, Bilaspur has **57 Vocational Training Providers (VTPs)** under which 2580 beneficiaries have been registered.

The following table highlights the courses offered in vocational education, which currently meet requirements of 19 sectors.

Table 128: Courses offered in vocational education, Bilaspur

Sector	ITI trades and Units affiliated	Courses Offered by VTPs
Auto and auto components Electronics and IT hardware Chemicals and pharmaceuticals	Draughtsman(Mechanical)(2), Electrician(61), Electronics Mechanic(1), Fitter(17), Forger and Heat Treater(1), Mechanic and machinist (22), Turner(5), Welder(9), Process Control and Instrumentation(12)	Electrical, Electronics, Fabrication, Automobile, Automotive Repairs, Production and manufacturing, Industrial chemistry, Chemical
IT and ITES Tourism, hospitality and travel Organized retail Media and entertainment Banking, financial services and insurance	Computer Operator and Programming Assistant(20), Information Technology and Electronics System Maintenance(1), Stenography(8), Secretarial practice(1), Driver cum mechanic (3)	ICT, Soft skill, Banking & Accounting, Hospitality, Media sector, Fashion design, Printing, Retail
Textiles and clothing Leather and leather goods Food processing	Cutting and Tailoring(1) Rice Mill Operator(1)	Textile sector, Garment making, Toy making, Manufacturing of ethnic Indian foods, Sericulture, Textile silk, Leather and sports goods, Food processing and preservation
Infrastructure (Transport, Energy,	Carpenter(1), Draughtsman(Civil)(2),	Construction, Courier and logistic,

Water & Sanitation, Communication, Social & Commercial) Building, construction and real estate Transportation, logistics, warehousing and packaging Construction material and building hardware Furniture and furnishing	Mason(Building constructor) (1), Sheet Metal worker(1), Surveyor(4), Moulder(1)	Retail
Healthcare Services Education and skill development Unorganized sector (particular reference to agriculture, security, plumbing, domestic worker, foundry, etc.)	Hospital housekeeping (2), Dental Laboratory Equipment Technician(2), Health sanitary inspector(2) Miscellaneous and unorganized sector: Horticulture(2), Plumber (1), Painter (1), Mechanic (Refrigeration, air conditioning, radio, television etc.) (3), Wireman(1),	Paint, Refrigeration & Air conditioning, Beauty culture and hair dressing, Security sector, Agriculture, Animal husbandry, Home decoration

Source: CSSDA Website

The following table highlights the NSDC partners present in Bilaspur as of January 2014 and the courses offered by them.

Table 129: NSDC partners present in Bilaspur

Name of Partner	Sectors in which course is offered	Courses offered
AISECT	IT and computer skills	<ul style="list-style-type: none"> ♦ Post graduate diploma in computer applications ♦ Diploma in computer applications ♦ Certificate in Computer Applications ♦ Diploma in computer programming applications
GRAS	IT & Software Others	<ul style="list-style-type: none"> ♦ GRAS Assistant to Beautician ♦ GRAS Computer Fundamental
IIJT	BFSI	-

Source: NSDC

Higher Education

Bilaspur can be considered as one of the **key higher education hubs in the state of Chhattisgarh**. Out of a total 590 colleges in the state, 61 (10.3%) are in the district of Bilaspur. This is much higher in comparison to the share of population of Bilaspur to the state (7.6%). However, **around 68% of the capacity in the colleges is in the general degree courses** (Arts, Science and Commerce). There are 5 universities in Bilaspur out of which 2 are private and 1 open.

1. Guru Ghasidas Central University (1983, 2009)
2. Maharishi University of Management and Technology (2002) (P)
3. Pandit Sundarlal Sharma Open University (2004)
4. C V Raman University (2006) (P)
5. Bilaspur University (2012)

The most notable one is the Guru Ghasidas Viswavidyalaya, which is a central University. Bilaspur University has just commenced. Bilaspur has one medical college, Chhattisgarh Institute of Medical

Science (CIMS). The break-up of the number and capacity of higher education institutes in Bilaspur is given below.

Table 130: Number and Capacity of Higher Education infrastructure in Bilaspur

#	Colleges	Number	Estimated Capacity*
1	Arts, Science and Commerce	34	17,500
2	Medical	1	100
3	Dental	2	200
4	Nursing	5	220
5	Other medical	1	100
6	Teacher Education	8	910
7	Law	2	750
8	Management and Technical	6	2,256
9	Agriculture	2	108
	TOTAL	61	22,903
*Source: University/College websites			

Key Observations:

- ♦ Bilaspur is one of the hubs for higher education as it has significantly high proportion of colleges in the state as compared to its population share. 61 out of 590 higher educational institutes of Chhattisgarh are located in Bilaspur.
- ♦ There are 16 ITIs and 57 VTP providers active in the district
- ♦ The district has a high number of higher education institutions, however nearly two-third of the capacity is in general degree courses (Arts, Science and Commerce)

4.7.6 Youth Aspirations

Youth population constitutes the most important demographic section for a district from a skills development perspective. In the process of capturing the aspirations of the youth population in Bilaspur, focused group discussions were held with youth from educational institutions as well as residing in rural areas to understand their concerns, areas of interest and future dreams and goals. The FGD in Bilaspur was conducted at the Women ITI Koni, Andi village and Madanpur village. People who participated in the FGD were from varied age groups, but they mostly belonged in the age group of 15-25 years. 56% of the participants were females while 44% were males. The educational qualification of about 75% of the participants was high-school level or below, the rest were graduation and above.

The key observations about aspirations of the youth of the district are highlighted below.

Table 131: Youth Aspiration – Key Responses – Bilaspur

Parameters	Responses
Job Preference	Most of the youth preferred Government jobs over private jobs due to the job security offered in a Government job. They also preferred regular/ salaried employment over self-employment.
Factors influencing selection of training institution	Institutions are selected on the basis of proximity to home , lack of other better alternative, consultation with guardian, lower fees, relevant subjects, etc.
Preferred Course	<ul style="list-style-type: none"> • Training for job readiness appears to be most popular among the youth in the district. Apart from the regular courses offered by educational/ training institutions; spoken English, basic communication skills, personality development, soft skills & basic IT skills are considered to be very important by the youth which they feel is one of the most important element to get a job. • COPA (Computer Operator and Programming Assistant) and also highlighted as a preferred course among both boys and girls. • Boys also expressed interest in trades of Electrician, Fitter and Welder. • Girls also indicated preference for courses in Textiles & garments, Beautician and Office Assistant
Migrating for job	Most of the youth particularly females prefer jobs within the district . Since the job prospect within the district is low, they are forced to migrate to cities like the district headquarter of Bilaspur or developing cities like Raipur, Durg etc. But males are willing to go outside district and state for jobs.
Salary Expectations	Average monthly salary expectation of youth ranges between Rs 8000 –15,000/-
Areas of concern/ aspirations- Infrastructure	<p>Following views were expressed regarding infrastructure in educational institutions:</p> <ul style="list-style-type: none"> • Youth reported poor quality of infrastructure in the institutes in terms of books in the library, building, laboratories etc. • The inadequacy of computers in schools and non-functioning of those available was also highlighted.
Areas of concern/ aspirations-Course Curriculum	<ul style="list-style-type: none"> • Youths expressed that admission process should be modified, need for counseling before admission was emphasized. • Rural youth expect free computer training, free coaching for competitive examination and training camps within the district. • Youth feel that institutes should focus more on soft skill and language training besides technical know-how, and it is critical for getting a good job. • Local industries should train people on apprenticeship/ intern model to improve job prospects.
Other concern	<ul style="list-style-type: none"> • Rural youth are of the opinion that since they are not sufficiently qualified, they get less

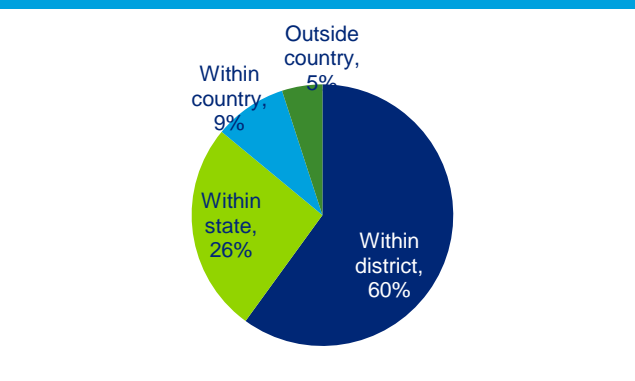
Parameters	Responses
	<p>salary compared to their work output.</p> <ul style="list-style-type: none"> It was also learnt that youth are not aware about the newly introduced Govt. initiatives on skill development such as VTPs (MES/ SDI scheme) and NSDC training partners. A very few of the respondents preferred to be self-employed.
Suggestions given by youth	<ul style="list-style-type: none"> The youth expect Govt. to take up initiatives to improve college infrastructure. Youth expressed that Govt. should take measures to provide proper education facilities to the poor people. There should be more courses, practical classes, resourceful, efficient and regular teachers available in the institutes. Counseling before taking admission in any course was suggested by the youth so that they can understand the proper career path. Certificates should be issued through a short and simple process. English, Hindi or both must be used as the medium of teaching.

A sample survey was conducted with youth at gram panchayat level & those coming out from various educational institutions (Government & private) to understand & capture their aspirations. The findings are presented below:

Job preference by youth

The majority of the youth we surveyed (60%) **prefer to get a job within their home district** as is evident from the adjacent figure. Approximately 26% of them preferred for job within their state of residence. The survey highlights the fact that around **86% of the youth surveyed wanted to get a job within Chhattisgarh** thus demanding and necessitating the creation of suitable positions and absorption capacity for them in the employment market. The survey reveals that not many youth are interested to migrate out of state in search of jobs.

Figure 147: Job Preference by Youth

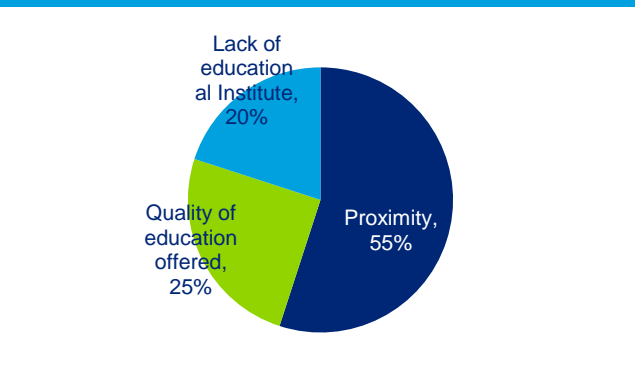


Source: Deloitte Analysis

Parameter for Institute Selection

A majority of the students surveyed (55%) at the gram panchayat level quoted the **proximity of the educational institution** as their prime parameter while selection of an institute for higher education. One-fifth of them mentioned the **lack of option for choice of an educational institution in their area forcing them to take admission in any of the institute available**. Around 25% of the students prefer the quality of education offered by the institute and its reputation while selecting an institute for higher education.

Figure 148: Parameter for Choice of Institute



Source: Deloitte Analysis

Youth Perception Mapping

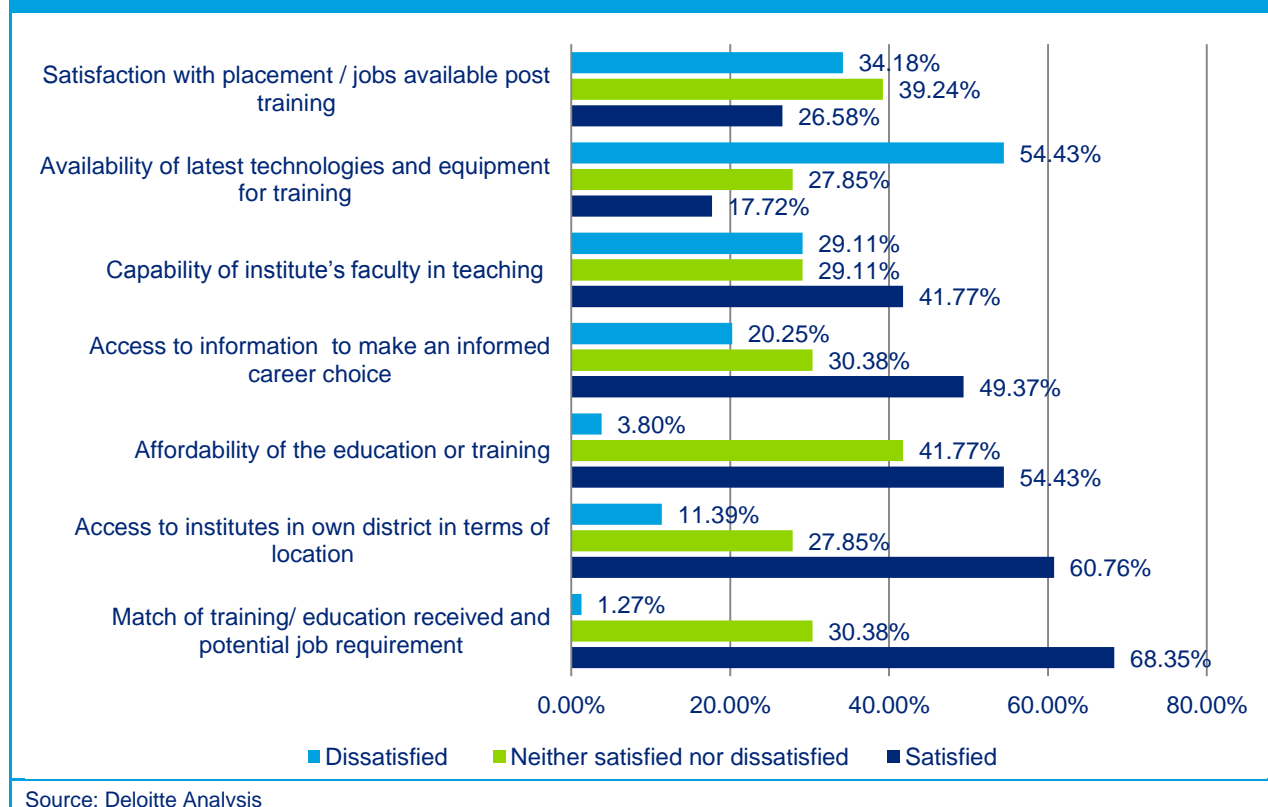
Youth perception mapping was undertaken to understand their level of satisfaction with either their current institute or their experience and feedback on the available educational infrastructure. The results are summarized below:

Low satisfaction with placement / jobs available post training: Around 27% of the students surveyed expressed their satisfaction with the placement opportunity available in the institute or jobs available post training. While around **34% of them felt the job opportunities available to them post training were not satisfactory**. They shared their expectation of being provided with a placement opportunity by the institute or facilitate a tie-up with nearby companies to give them an experience of hands on training.

Non-availability of latest technologies and equipment for training: **55% of the students surveyed expressed their dissatisfaction** with the availability of latest technology & equipment for training in the institute while only 18% of them shared their satisfaction with the same. They felt the lack of equipment as a major constraint for their knowledge enhancement and appropriate level of skill development. They demanded that the institutes to be adequately equipped and upgraded with latest technology.

Satisfaction with capability of institute's faculty in teaching: Around 42% of the students are satisfied with the quality of institute's faculty while 30% of the students (especially the students from Government ITI's) feel the **quality of teaching by faculty** is not satisfactory and needs significant improvement. They demanded the number of faculty to be increased as per the demand of the course and the **lack of quality faculty in the institute to be compensated by inviting visiting faculty from outside**.

Figure 149: Youth Perception Mapping, Bilaspur



Need for better access to information to make an informed career choice: While around 49% of the students vouch for accessibility to information to make an informed career choice, around 20% of them felt that they did not get proper accessibility to information to make an informed career choice. The concern was raised more by the rural youth who reported the **absence of thought leaders in their locality to get suggestions and guidance on career**. This showcases the importance of having career counseling to the potential students either at the school level or at the respective vocational institutes.

Affordability not as high a concern as quality and value for money in education or training: Majority of the students (around 54%) felt that the fees charged by the education/ training institute was not a barrier for them and considered it to be affordable for them. They raised their concern that the quality of the training programme offered should be commensurate with the fees charged.

Access to institutes is an issue in rural areas: 61% of the students surveyed expressed their **satisfaction with the accessibility** of the educational institutes in terms of location. They found the institute to be located in an accessible area and safe in terms of the duration of classes. Around 11% students felt the educational institutes to be inaccessible in terms of location and majority of them were rural youth. The rural youth voiced the government to support them by arranging suitable transport facility.

Satisfaction with the alignment of training/education received with job requirements: Approximately 68% of the students surveyed feel that the training/education currently provided by the educational institutes in the district is in alignment with the potential job requirements of the employers.

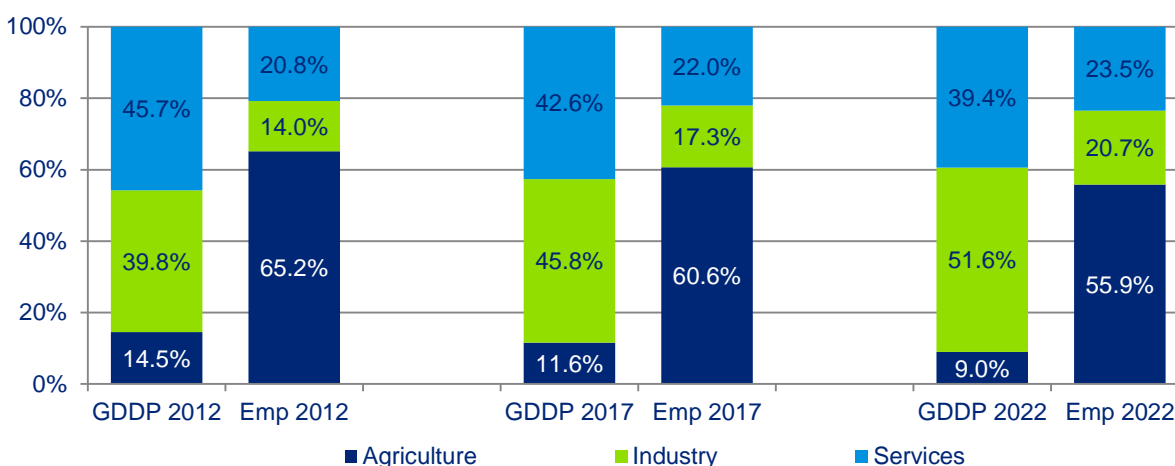
Key Observations:

- ◆ Govt. Jobs were preferred over private, the expected salary ranges from Rs. 8000- Rs. 15000/-.
- ◆ While boys were willing to migrate to outside district and state for jobs and education, it was vice versa for girls, who selected institutions/ jobs on the basis of proximity to home.
- ◆ Girls preferred cutting, tailoring, beauty parlor Service sector was the most preferred sector.
- ◆ Among boys, computer related courses, fitter, electricians was highlighted
- ◆ Need for updating course content & creating linkages for placement was strongly expressed
- ◆ Improving institute-industry interface to ensure better apprenticeship training was emphasized
- ◆ Training for job readiness appears to be most popular among the youth. The need for developing communication, language, basic IT and soft skills was emphasized by the youth.
- ◆ Need to address Infrastructure gaps - particularly updating the library and laboratory with latest computers, tools and equipment was expressed
- ◆ Youth expressed that the lack of quality faculty in the institute may be compensated by inviting visiting faculty from outside
- ◆ Youth are not aware about the different Government initiatives on skill development
- ◆ The need for career counseling prior to admissions was strongly expressed by the youth

4.7.7 Skill Gap Assessment

The working age population (15-59) constituting 59.8% of total district population in 2011, is expected to increase to 63.5% by 2022. Demand for jobs is expected to increase leading to the need for job creation. Similarly, to reap this demographic dividend, supply of labor must be adequately skilled.

Figure 150: Comparison of Sectoral share in GDDP & Employment, Bilaspur



Source: Deloitte Analysis

The Agriculture sector despite having the lowest contribution in the district economic profile accounts for the largest share of workforce. Moreover, its relative contribution to the economic output is expected to diminish over the decade however in terms of employment it is still anticipated to be the major employer in the district. Based on our analysis and primary interactions, the Agriculture sector is expected to play a significant role and will continue to be an important sector in terms of providing employment in the district. If the trends in employment continue, in 2021-22, the share of employment across the Agriculture sector is expected to decline to 55.9% as compared to 65.2% in 2012.

The Industry and Services sector employment share are estimated to increase to 20.7% and 23.5% respectively, as indicated in the table above. This trend appears to be in line with the national trend as well where people are moving out of the Agriculture sector and moving into the industry and Services sectors respectively. The comparison in sectoral share in GDDP and employment also depicts the significant disparity in the structures of economy and employment in the district. This phenomenon is typical of the economy-employment structures in most districts and states in India. It indicates the significant task ahead in aligning employment with the economic output of different sectors.

Incremental Human Resource Demand

As per the methodology, the total incremental demand for manpower in Bilaspur from 2013 to 2022 is expected to be around 2.64 lakh.

Following table provides the break-up of the incremental demand for manpower in Bilaspur as per the skill levels required.

Table 132: Estimated Incremental Human Resource Demand ('00) by Skill Level in Bilaspur

	2012-17	2017-22	Total
Skilled	214	276	490
Semi-Skilled	440	544	984
Minimally Skilled	557	607	1,164
Total	1,211	1,427	2,637
Source: Deloitte Analysis			

Some of the key trends observed on the demand side include

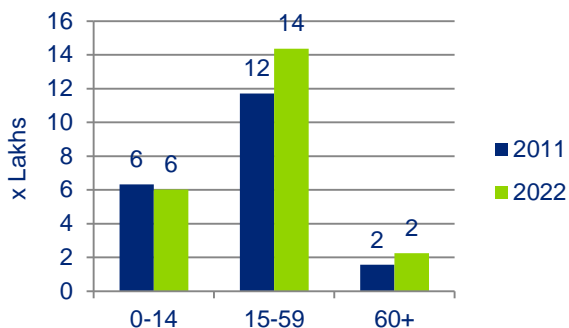
- ♦ *Agriculture will be the largest incremental demand generating sector (23.6%) with demand largely in the minimally skilled level.*
- ♦ *Manufacturing (primarily mineral based and metal based fabrication units) is anticipated to be the second largest incremental demand generating sector (17.2%) in the district with demand largely for the semi-skilled workers (60%). Mineral based units are currently one of the key micro and small industries in the district in terms of manpower employed and investments proposed. Presence of the Industrial Area at Tifra & Anjani, Industrial growth centre at Sirgitti and development of Silaphari into a fully functional Large Industrial Area is anticipated to facilitate the growth of manufacturing units in the district.*
- ♦ *In the Industry sector, Building and Construction (14.5%) is expected to be one of the major employers.*
- ♦ *Within the Services sector, the key growth sectors in Bilaspur in terms of incremental demand for manpower include trade (retail + wholesale) (8.7%) and BFSI (7.5%).*
- ♦ *Analysis of formal and informal employment indicates that the incremental demand for manpower in formal sector would come mainly from Manufacturing (mineral/metal based), BFSI, Building and Construction, Trade (Retail + Wholesale) and Public Administration.*
- ♦ *Majority of demand for incremental manpower in the informal sector is projected to come from Agriculture, Building & Construction, Trade (Retail + Wholesale), Manufacturing (mineral/metal based) and Communication.*

Table 133: Incremental Human Resource Demand ('00) by Skill Level in Bilaspur - Key Sectors

#	Key Sectors	2012-17				2017-22			
		Skilled	Semi-skilled	Minimally Skilled	Total	Skilled	Semi-skilled	Minimally Skilled	Total
1	Agriculture	10	32	278	319	9	30	265	304
2	Manufacturing (mineral/metal based)	41	122	41	204	50	149	50	249
3	Building and Construction	25	66	74	165	32	87	97	217
4	Trade (Wholesale + Retail)	17	56	39	112	17	58	41	116
5	BFSI	34	31	3	69	64	58	6	129
6	Communication	11	23	23	57	15	31	31	77
7	Others	76	110	99	285	87	131	117	335
8	Total	214	440	557	1,211	276	544	607	1,427
Overall Incremental Demand					2,637				
Source: Deloitte Analysis									

Incremental Human Resource Supply

Figure 151: Age wise distribution of population, Bilaspur 2011 and 2022 (projected)



Source: Census 2011 and Deloitte Analysis

The population of Bilaspur is expected to increase from 19.60 lakhs in 2011 to 22.62 lakhs in 2022. Adjacent figure provides the current and projected population across various age groups. As per the analysis, the number and proportion of children in 0-14 age group is projected to fall by about 31,000 children, amounting to a fall of 4.9% between 2011 and 2022. This fall anticipated in the number of children in 0-14 age group will have important bearing on the government policies and initiatives regarding primary and secondary schooling, and on the demand for vocational and higher education in future.

The number of persons in the working age group is expected to increase by 2.65 lakh during the same period. This represents a potential demographic dividend for the district with a large increase in the employable population. On the other hand, it presents a huge challenge for the state to make available higher education and skill development facilities as well as ensure productive employment opportunities for its population.

As per the methodology, the estimated incremental manpower supply over a period of 10 years (2012-22) will be around 2.71 lakh. Incremental manpower supply can be further classified into skilled, semi-skilled and minimally-skilled as per the education qualifications and estimated output of educational and vocational training institutes in the district.

Table 134: Estimated Incremental Human Resource Supply ('00) by Skill Level in Bilaspur

	2012-17	2017-22	Total (2012-22)
Skilled	324	344	668
Semi-Skilled	202	211	412
Minimally Skilled	820	812	1,632
Total	1,345	1,367	2,712

Source: Deloitte Analysis

Some of the key trends observed on the supply side include

- Proportion of incremental supply of minimally skilled manpower is 60.2%, compared to 24.6% of skilled and 15.2% of semi-skilled manpower (2012-22)
- Bilaspur has significant share of universities (5/19) and higher educational institutes (10.3%) in state which contributes to high supply of skilled manpower
- The supply of semi-skilled workforce is estimated to increase over the two time period which is in-line with the current focus of government in improving the skill development space of the state.
- The proportion of minimally skilled workers in the workforce is estimated to decrease from 61% over 2012-17 to 59% over 2017-22. From a skilling perspective, this is an important target segment for training so that they can positively contribute to the economy.
- Impact of Migration is expected to be inward and accounts to around 1.9% of the supply. According to primary interactions, inward migration is primarily in minimally skilled segment majorly for jobs in building & construction and manufacturing sectors.

Incremental Demand Supply Gap

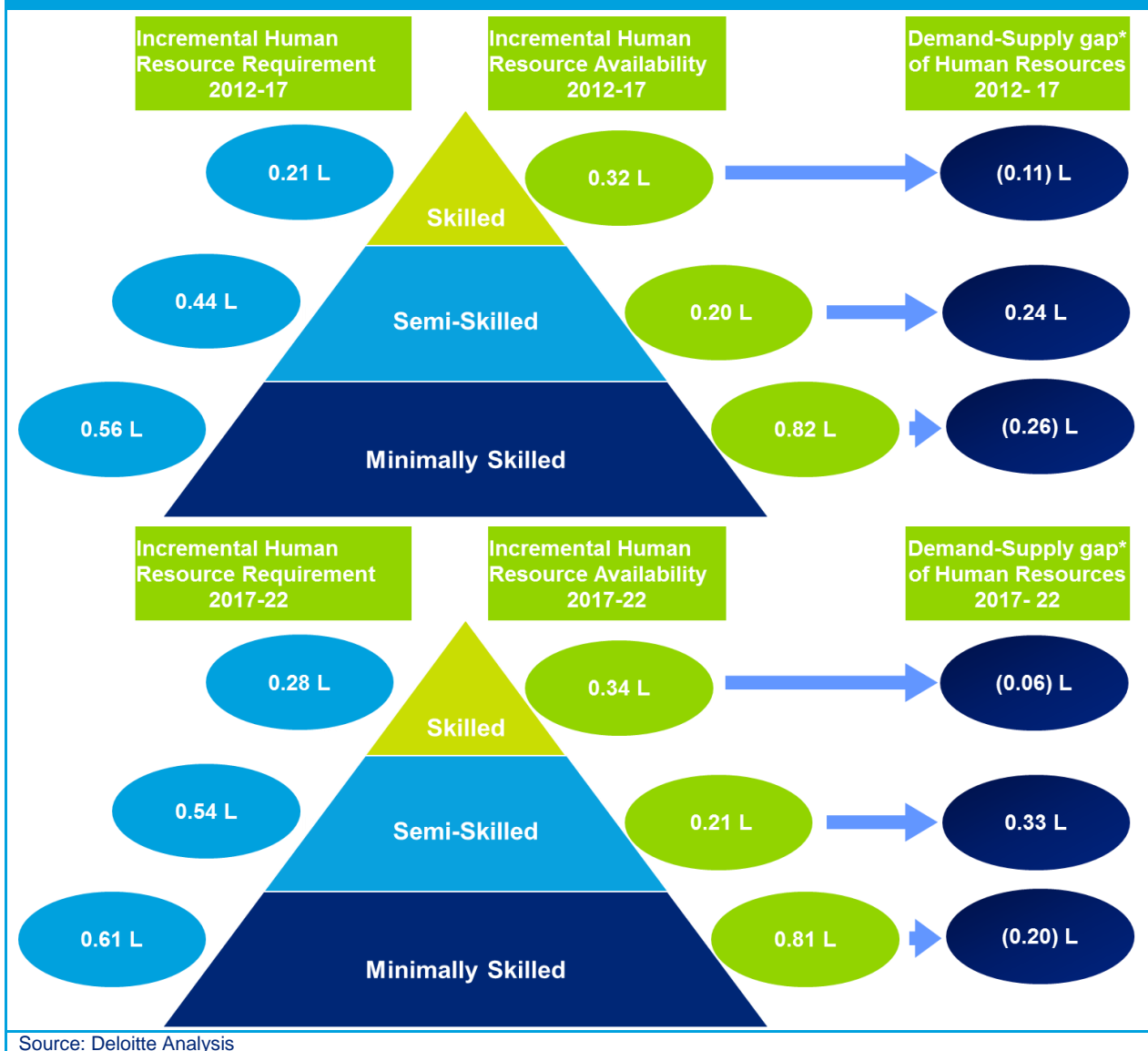
During the period 2012-22, the incremental human resource demand in Bilaspur across all skill levels is estimated to be 2.64 lakh while the supply is projected to be 2.71 lakh indicating thus a surplus of 0.08 lakh people (refer table below). There is estimated to be an excess supply over demand across the skilled and minimally skilled segments in Bilaspur.

Table 135: Projected Demand Supply gap ('00) by skill levels in Bilaspur

#	District Skill Gap	2012-17				2017-22			
		Skilled	Semi-skilled	Min. Skilled	Total	Skilled	Semi-skilled	Min. Skilled	Total
1	Incremental HR Requirement (Demand)	214	440	557	1,211	276	544	607	1,427
2	Incremental HR Availability(Supply)	324	202	820	1,345	344	211	812	1,367
3	Demand-Supply Gap	(110)	238	(263)	(135)	(69)	333	(205)	60
	Overall Demand- Supply Gap				(75)				
Source: Deloitte Analysis									

During the period 2012-22, the incremental manpower demand supply gap of the district (across all sectors mentioned above) is expected to be a surplus of about 0.08 lakh people with the excess supply across skilled segment as shown in the following figure.

Figure 152: Incremental Demand-Supply Gap (in lakhs) , Bilaspur



Some of the key trends observed on the demand-supply gap side include

- ♦ The composition of the human resource demand supply gap in the district over the two different time periods i.e. 2012-17 and 2017-22 is anticipated to remain the same.
- ♦ The excess supply in the skilled segment is expected to continue over the decade. This is in line with presence of better education facilities in the district. However, even in cases of excess supply, it is pertinent to note that it does not imply industry demand for skills is being sufficiently met. Employability linked skills have emerged as a key area of concern among industry. The changing trends of the sector including use of new technology and practices imply a need for reskilling and up skilling of existing workers.

- ♦ There seems to be **mismatch between outputs** from higher educational institutions in the district (68% in general degree courses) **to job specific skills** required by sectors having high demand for skilled labor. Due to the excess supply, skilled workers may need to seek employment opportunities outside the district.
- ♦ As indicated in the figure, the excess supply of minimally skilled human resources is likely to decrease in the period 2017-22 from 2012-17 owing to the greater focus of the state on improving school education, and providing an impetus in the skill development space.

Qualitative Skill Gaps

The qualitative skill gaps that were highlighted during our primary interactions with industry at Bilaspur are provided in the table below.

Table 136: Qualitative Skill Gaps

Sector	Level	Skill Gap
Agriculture	Tractor operator and mechanics/ Electricians/ Mechanics for repair & maintenance of agricultural tools & implements	<ul style="list-style-type: none"> ♦ Sufficient training to address tool & equipment failures like motor pump failure, gear damage, tyre puncture etc.
	Manager/Engineer	<ul style="list-style-type: none"> ♦ Project Management and People Management Skills ♦ Knowledge of appropriate safety practices ♦ Communication skills (Writing Skills)
Manufacturing (mineral /metal based)	Supervisors	<ul style="list-style-type: none"> ♦ Interpersonal and communication skills ♦ Understanding of quality concepts ♦ Understanding of product specifications ♦ Knowledge and implementation of safety practices ♦ Improve efficiency by avoiding wastage of resources
	Workmen/operators	<ul style="list-style-type: none"> ♦ Understanding of discipline, industrial rules, work related procedures etc. ♦ Ability to carry out basic troubleshoot in case of machine breakdown ♦ Understanding of wastage or resources, to improve efficiency in working ♦ Practicing safety measures in the workplace ♦ Multi skilling
Building & Construction	Project Managers/Engineers	<ul style="list-style-type: none"> ♦ Knowledge of design and tools such as AutoCAD etc. ♦ Knowledge of green/eco-building design ♦ Project Management and People Management Skills ♦ Knowledge of appropriate safety practices ♦ Client Management skills (e.g. government officials for approvals, flat owners etc.)
	Supervisors: plumbing, electrical, carpentry, masonry, drilling	<ul style="list-style-type: none"> ♦ Skills in civil- operations of ready mix m/c, earth movers, etc. ♦ Basic repair and maintenance ♦ Exposure to right methodology in construction specific skills like lining, leveling etc. ♦ Site safety concepts and procedures ♦ Lack of finishing skills
	Workmen: plumbing, electrical works, carpentry,	<ul style="list-style-type: none"> ♦ Basic operating skills related to relevant category ♦ Improved/ better quality in finishing

Sector	Level	Skill Gap
	masonry, drilling	<ul style="list-style-type: none"> ♦ Site safety concepts and procedures ♦ Ability to understand & follow instructions/ manuals
Trade (Retail and Wholesale)	Store/Department Manager	<ul style="list-style-type: none"> ♦ Understanding of cross functional activities in the store esp. logistics, marketing and merchandising ♦ People management skills ♦ Vendor Management ♦ Lack of IT skills
	Billing Associate/ Accountants/ Computer operators	<ul style="list-style-type: none"> ♦ Knowledge of transaction processing software and cash management ♦ Knowledge of tally/accounting practice
	Sales/Customer Service personnel	<ul style="list-style-type: none"> ♦ Product specific knowledge ♦ Customer service and Inter personal skills ♦ Communication skills

4.7.8 Recommendations

Future Growth Opportunities in Bilaspur

In the context of the current economic profile and proposed investments of the district, the demand for human resources at various skill levels has been analyzed. The observations have been augmented by primary interactions with industry & industry association representatives in the district and government officials at the state and district level. Based on our analysis and considering factors like high growth and employment potential, priority sector for the state government, investment trends, etc., the following sectors/industries have been identified with future growth opportunities for employment and subsequently, skill development in Bilaspur.

Table 137: Key Growth Sectors – Bilaspur

#	Priority Sectors	Growth opportunities in skills development and employment
1	Agriculture	<ul style="list-style-type: none"> Agriculture is providing employment to around 63% of the workers in the district in 2013 & is expected to grow at around 4% over the next decade (2012-22). The sub-tropical, semi-arid, continental and monsoon type climate of Bilaspur is suitable for the growth of crops like wheat, rice, sugarcane and cotton. Bilaspur is known for its rice quality. It is a National Food Security Mission (NFSM) district for pulses. This sector will have an estimated incremental demand for around 62,347 workers in Bilaspur over the decade (2012-22), comprising around 23.6% of the total incremental demand for manpower. Cultivation of paddy along with production of horticultural produce like Onion, Potato, Mango and Papaya is expected to employ a significant section of the workforce.
2	Manufacturing (mineral/metal based)	<ul style="list-style-type: none"> Manufacturing units which primarily includes mineral based and metal based fabrication units is projected to be the second largest employer in the district with approximately 17.2% of the total incremental demand for employment estimated to come from this sector over the period 2012-22. In terms of absolute employment, this sector is estimated to employ approximately 45,296 workers over the next decade. Mineral based units are currently one of the key micro and small industries in the district in terms of manpower employed and investments proposed. Presence of the Industrial Area at Tifra & Anjani, Industrial growth centre at Sirgitti and development of Silaphari into a fully functional Large Industrial Area is anticipated to facilitate the growth of manufacturing units - primarily cement & sponge iron plants- in the district.
3	Building & Construction	<ul style="list-style-type: none"> Construction is another major contributor in the district economy which is expected to grow at around 12.8% (2012-22). The district is a power hub, which is an essential requirement for the construction sector. The total budgeted value for ongoing building and construction activities (building and roadwork) in Bilaspur for the year 2013-14 is allocated at Rs. 768 crores²⁰³. Building and construction is projected to be one of the chief employers in the district. This sector will have an estimated incremental demand for around 38,139 workers in Bilaspur over the decade (2012-22), comprising around 14.5% of the total incremental demand for manpower.
4	Trade (Wholesale + Retail)	<ul style="list-style-type: none"> Trade (Wholesale+ Retail) is another major contributor in the district economy which contributed around 15% to the GDDP in 2013 and is expected to grow at around 8% over the decade (2012-22). The district is a major hub for steel, cement and agricultural commodity trading. Due to

²⁰³ Chhattisgarh Public Works Department

#	Priority Sectors	Growth opportunities in skills development and employment
		<p>the booming manufacturing industry, specially steel and power as well as growth in building and construction activities, trade of raw materials result in increasing manpower demand in this sector.</p> <ul style="list-style-type: none"> It is anticipated to be one of the largest employers of the district, contributing to about 8.7% of the total incremental manpower demand in Bilaspur over the period 2012-22. In terms of absolute employment, this sector is estimated to employ around 22,859 human resources.
5	BFSI	<ul style="list-style-type: none"> BFSI is one of the fastest growing sectors in the district and is estimated to grow at around 11.2% over the decade (2012-22). It is estimated to be one of the key employers in the district employing around 7.5% of the total incremental demand for manpower. In terms of absolute employment, this sector is estimated to employ around 19,722 human resources.
Source: Deloitte Analysis		

Considering the economic and skill landscape of Bilaspur, the table below indicates the priority areas of focus for key stakeholders involved. These observations have been mainly derived from the growth opportunities identified above and through primary interactions with industry and industry association representatives in the district along with inputs from the students, training institutes and government.

Table 138: Key Recommendations for Stakeholders – Bilaspur

Stakeholder	Priority Areas
NSDC	<p>NSDC can focus the efforts of its training partners in the key sectors identified in the district, viz.</p> <ul style="list-style-type: none"> Agriculture Manufacturing (primarily mineral/metal based) Building and Construction Trade (Wholesale + Retail) BFSI
Private training providers	<ul style="list-style-type: none"> There is a need for courses in Manufacturing sector (primarily mineral/ metal based) owing to the demand for more trained workers in the sector. Additionally, courses in Agriculture, BFSI, trade (wholesale + retail) and building and construction can also be explored. There is a need for design and delivery of bridge courses with a focus on communication, language, basic IT and soft skills to make students job ready. There is a need to strengthen/improve the current technology and facilities/equipment in the institute as indicated by around 54% of the youth surveyed.
Government	<ul style="list-style-type: none"> The Government should promote and endorse vocational education as a practical alternative to formal education with emphasis on providing job ready courses. The government should facilitate programs to encourage self- employment in the district. For this purpose, the MSME-DI, Raipur can arrange multiple product-cum-process oriented programs in the district like Entrepreneurship Skill Development programmes (ESDPs), Entrepreneurship Development Programmes (EDPs), Industrial Motivation Camps (IMCs), BSDPs etc. with an objective of developing entrepreneurial qualities and preparing new entrepreneurs to setup their own small enterprises. Government training institutes can initiate/enhance multi-disciplinary courses in sectors such as Building & Construction, Manufacturing etc.
Industry	<ul style="list-style-type: none"> More industry interactions should be initiated in the Manufacturing (primarily mineral/metal based), Building & Construction, Trade and BFSI sectors in the district There is a need to collaborate with skill development institutes (SDI), ITIs and

Stakeholder	Priority Areas
	<p>Employment Exchanges in the district to create structures/ linkages for placement and internship/ OJT opportunities</p> <ul style="list-style-type: none">♦ Industry players may provide inputs in curriculum for ITIs and skill development institutes to improve the practical component of learning.

4.8 Dantewada

4.8.1 District Profile

Dantewada district is located in the southern portion of Chhattisgarh. The district is a part of Bastar division. It is surrounded by Narayanpur on the north, Bastar on the east, Sukma on the south and south-east and Bijapur on the west. In 1998, the former Bastar district of Madhya Pradesh was divided into Bastar, Kanker and Dantewada. In 2007, Bijapur was carved out of Dantewada. In 2012, the district was further bifurcated into the present day districts of Dantewada and Sukma. Dantewada extends over an area of 3410 sq. Km, which is 2.5% of the total state area. The district is divided into 4 tehsils viz. Geedam, Katekalyan, Kuwakonda and Dantewada, 114 gram panchayats, 4 Janpad Panchayats, 2 Nagar Palika, 3 Nagar Panchayats, 9 Revenue Circles and 41 Patwari Circles²⁰⁴. The district headquarter

is the Dantewada town. The town has been named after goddess Danteshwari. The district has archeological significance as is evident from the ruins and remaining of ancient sculptures and temples²⁰⁵.

Map 9: Dantewada District



Table 139: Dantewada District Profile

#	Indicator	Dantewada	Chhattisgarh	% Share
1.	Area, in sq.km.	3410	135,190	2.5
2.	No. of sub-districts	4	149	2.7
3.	No. of inhabited villages (total villages)	239*	20126	1.2
4.	No. of households (lakhs)	0.64 ²⁰⁶	56.50	1.1
5.	Average Land holding size (Ha)	1.20*	1.17	-
6.	Forest area cover	64.4%**	41.2%	-

Source: Census 2011; Directorate of Economics & Statistics- Govt. of Chhattisgarh and Forest survey of India, Ministry of Environment & Forest, 2011; Dantewada district website (<http://dantewada.gov.in/>), Deloitte Analysis

* Data is for undivided Sukma (includes Dantewada)

** Data is for undivided Sukma (includes Dantewada and Bijapur)

²⁰⁴ Census 2011 and Dantewada district website (<http://dantewada.gov.in/>)

²⁰⁵ Dantewada district website (<http://dantewada.gov.in/>)

²⁰⁶ Divided according to Dantewada: Sukma population ratio

4.8.2 Demography

As per Census 2011, Dantewada has a total population of 2, 82,803 of which 76% of the people reside in the rural areas²⁰⁷. As of 2011, Dantewada is the 4th least populous district of Chhattisgarh. The population density at 83 persons per sq. km is much lower than the state average of 189. About 62.3% of the population is in the working age population class group. Dantewada has one of the highest per capita incomes, much higher compared to the state per capita income of Rs 28,263. The district ranks 3 amongst all the 27 districts of Chhattisgarh in terms of per capita income.

Table 140: Demographic Indicators of Dantewada

Demography	Dantewada	Chhattisgarh
Population (2011)	2,82,803	2,55,40,196
Population 15-24 (2011)	57,743	49,89,339
Decadal Population Growth Rate (2001-11)	11.9%	22.6%
Population density per sq. km (2011)	83	189
Percentage of Urban Population (2011)	24.0%	23.2%
Percentage of SC population (2011)	2.4%*	12.8%
Percentage of ST population (2011)	76.9%*	30.6%
Average household size	4.41*	4.54
Sex Ratio (2011)	1025	991
Working age population (15-59) as a percentage of total population, %	62.3%	60.1%
Per Capita Income (2009)	Rs. 53,311 ²⁰⁸	Rs.28,263
Source: Census of India 2011; Directorate of Economics and Statistics- Govt. of Chhattisgarh; Deloitte Analysis		
* Data is for undivided Sukma (including Dantewada)		

Key Observations:

- ♦ At Rs 53,311, the district has one of the highest per capita incomes in the state, ranking 3rd.in Chhattisgarh in 2009.

²⁰⁷ Census 2011

²⁰⁸ At 2004-05 constant prices; Deloitte Analysis

4.8.3 Economic Profile

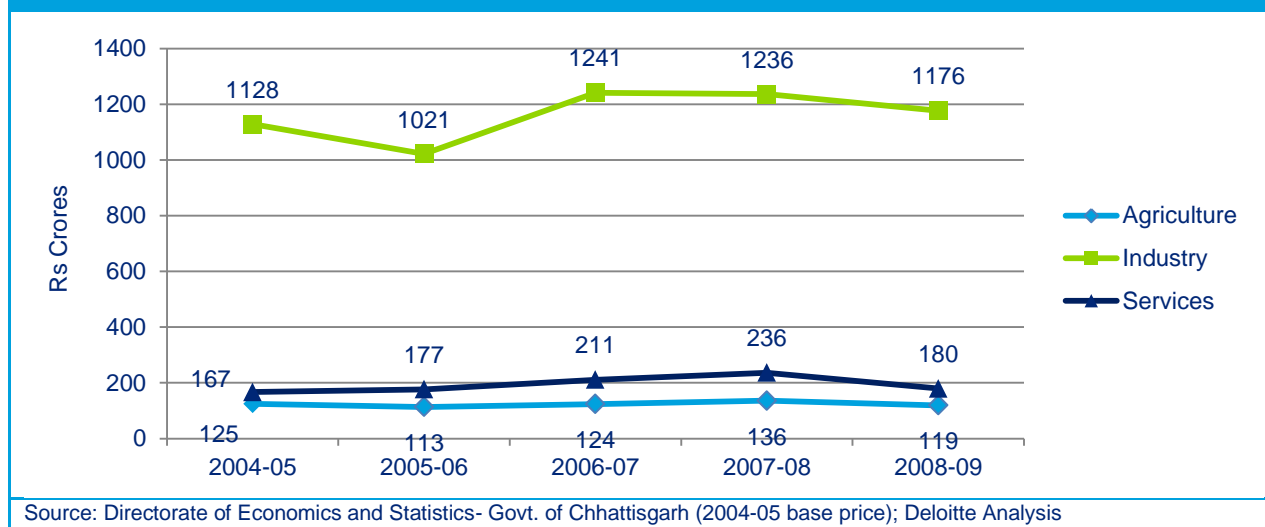
The economy of Dantewada has registered a CAGR of about 1% (estimated at constant prices, 2004-05) between 2004-05 and 2008-09 and grown from Rs. 1420.2 cr to Rs 1475.6 cr²⁰⁹. The district recorded a significantly lower growth as compared to the state growth of 9.6% over the same period.

In terms of Gross District Domestic Product (GDDP), the district ranked 15th amongst all the districts of Chhattisgarh. It has a GDDP of Rs 1475.6 crores (2008-09). Dantewada economy contributes 2.1% of the Gross State Domestic Product.

The economy of Dantewada district is pre-dominantly Industry sector based, with its share in GDDP being 79.7% in 2008-09. This is followed by the Services sector with 12.2% share in the GDDP and Agriculture sector which has a share of around 8.1%. However, none of the sectors registered a high growth rate over the period 2004-09. While the Agriculture sector witnessed a negative CAGR of -1.1%, the Industry and Services sector registered a CAGR of about 1.1% and 1.8% during the period 2005- 2009.

The sector-wise GDDP growth and distribution from 2005-2009 is given in the figures below:

Figure 153: Sectoral Share of GDDP, 2004-05 to 2008-09, Dantewada



²⁰⁹ Directorate of Economics and Statistics-Chhattisgarh; Deloitte Analysis

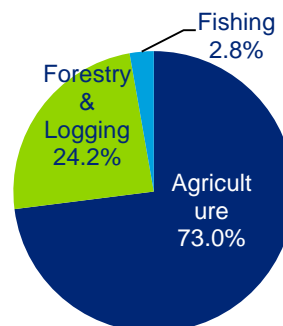
Agriculture Sector

The contribution of Agriculture sector (agriculture, forestry & logging and fishing) to GDDP was 8.1% in 2008-09.

Agriculture is the major contributor to the sector with a sectoral contribution of 73% in 2008-09. The tribal people of the region mostly use traditional methods of farming. Most of the farmers use wooden ploughs and bullock carts while the use of iron ploughs and tractors is negligible.

The chief crops grown in the district are paddy, Urad, maize, moong, Niger and kulthi. Being a rain-fed crop, rice is grown predominantly during kharif season, but the productivity of this crop is very low due to the use of traditional agricultural implements in farming and lack of use of fertilizers. Dantewada is a NFSM district for both rice and pulses.

Figure 154: Sub-sectoral break-up in Agriculture sector (2008-09), Dantewada



Source: Directorate of Economics and Statistics- Govt. of Chhattisgarh; Deloitte Analysis

More than 60% of the district is covered by forests. Collection and sale of forest produce like Tendu leaves, Sal seed, Medicinal plants, bamboo, lac and honey supplements the meagre agricultural incomes. The forests also provide for people's consumption needs —fuel and firewood, medicines, food and drink, implements and housing materials. The forests in the Dantewada area consists of Kusum(Lac), Palash, Imlia, Mahua, Kusum(Oil Seed), Chironjee, Bachandi, Tikhur, Shahad, Aonla, Satawar, Kalijeeri, Bel, Baibiding and Marorfalli.

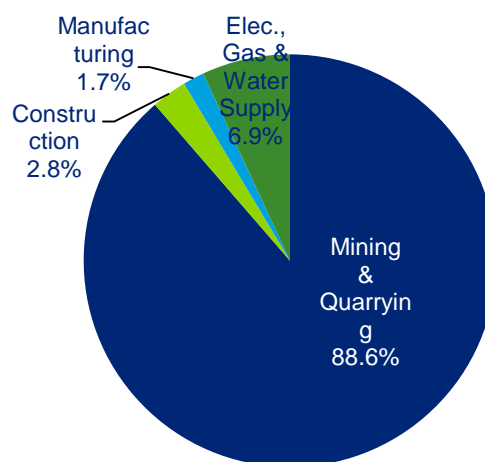
Industry Sector

The Industry sector (mining & quarrying, manufacturing, construction, electricity, gas and water supply) contributed 79.7% to the GDDP in 2008-09.

Mining & Quarrying is the main contributor in the total output of the Industry sector contributing about 88.6% of the sectoral output in the year 2008-09.

Dantewada is rich in mineral resources. It is endowed with very good quality Iron Ore in the Bailadila area in heavy quantity. Bailadila Ore is one amongst the world's top quality Iron Ores, with 60 to 68% Iron in the Ore. Mining of Iron Ore in this region has been entrusted to National Mineral Development Corporation Limited (NMDC). The total quantity of Iron Ore across the 14 deposits of the region has been estimated at around 3000 Lakh Tonnes. The region is also estimated to have deposits of around 680 Lac Tonnes of Blue Dust.

Figure 155: Sub-sectoral break-up in Industry sector (2008-09), Dantewada



Source: Directorate of Economics and Statistics- Govt. of Chhattisgarh; Deloitte Analysis

Amongst other minerals, approximately 500 Tonne Tin Ore deposits have been reported in Katekalyan, Lakaras, Korapal and Marjum villages of Katekalyan Tehsil as well as Bacheli and Padharpur areas of Dantewada tehsil. The district ranks 2nd in the state in terms of mineral revenue receipt in 2012-13. The mineral revenue receipt (in Rs lakhs) of the key minerals in the district is summarized below.

Table 141: Mineral Revenue Receipt (Rs. Lakhs) in 2012-13, Dantewada

Major Minerals	Minor Minerals	Others	Total
68464	48.9	0.6	68513

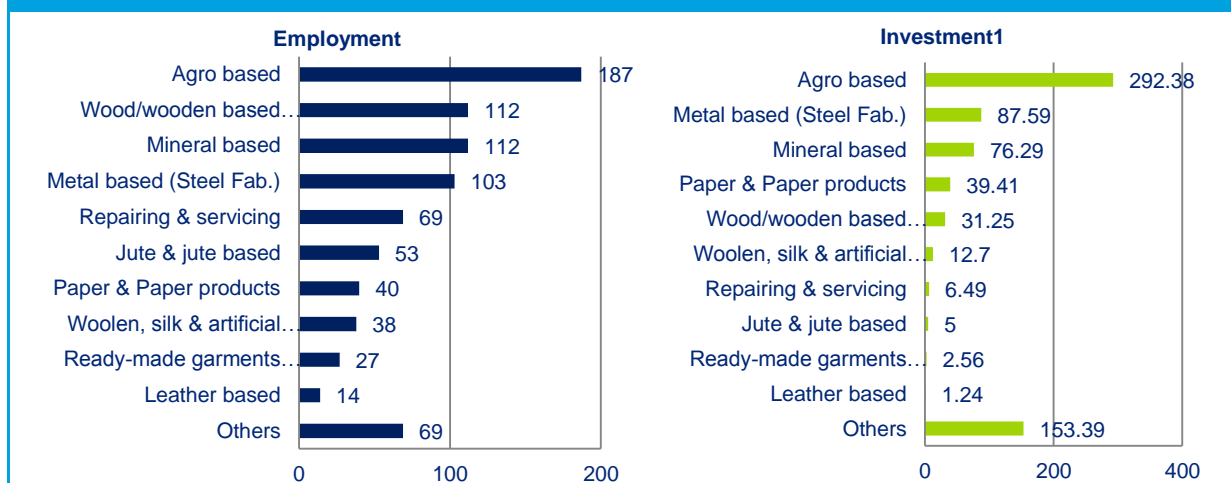
Source: Directorate of Geology & Mining, Chhattisgarh

Construction is another major contributor in the Industry sector in Dantewada in 2008-09. The total budgeted value for ongoing building and construction activities (building and roadwork) in Dantewada for the year 2013-14 has been allocated at Rs. 16 crores²¹⁰. As far as manufacturing sector is concerned, there are no large scale industries in the district. However, it has presence of some units' ancillary to the National Mineral Development Corporation Limited (NMDC). Additionally, as per the list of MoU's shared by the State Investment Promotion Board (As on 31-03-2011), following two investments have been proposed for Dantewada - proposed investment of Rs 7000 crores by Essar Steel for an integrated steel plant with a 100MW CPP and proposed investment of Rs 270 crores for a pallet plant. Furthermore, an Integrated Infrastructure Development Centre for small scale industries is being developed at Teknar.

One of the major contributors to the manufacturing sector is the handicraft industry. The tribes of Dantewada are excellent artisans. They are experts in crafting artistic items with Clay, Bamboo, Bell Metal, Terracotta, Wood Carving, Wrought Iron and Sisal/Jute. The use of Shell & Peacock Feathers in the various art forms like Gharhwa Art, Wooden Art, and other crafts depict the talent and knowledge of the artisans of the region. There are around 35 handicraft clusters in the district²¹¹.

The key industry in MSME sector in terms of employment & investment is agro based as shown below.

Figure 156: Employment and Investment (in Rs lakhs) in micro and small enterprises, Dantewada*



Source: Ministry of Micro, Small and Medium Enterprises, Government of India, 2011-12

*Data is for undivided Dantewada (including Bijapur)

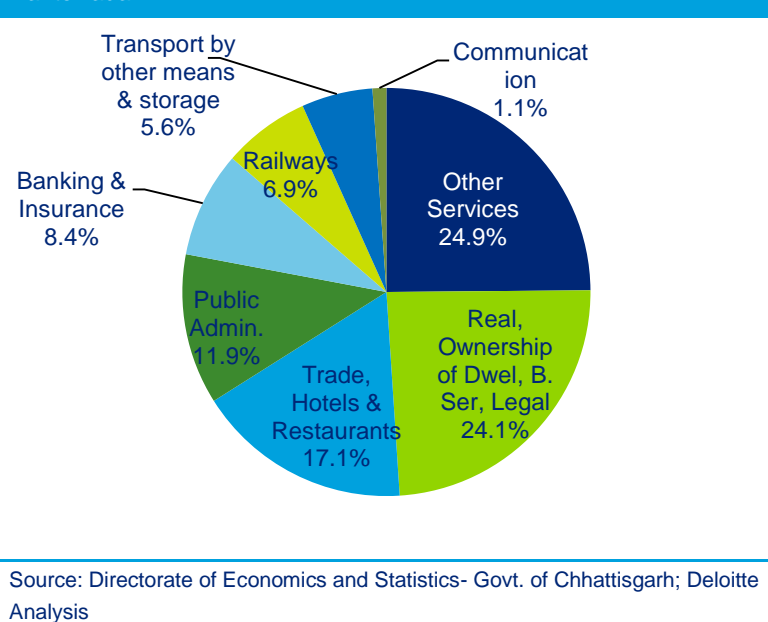
²¹⁰ Chhattisgarh Public Works Department

²¹¹ Chhattisgarh Handicrafts Sector Profile, Chhattisgarh Handicrafts Sector Meet-2012

Services Sector

The Services sector contributed to about 12.2% of the GDDP in the year 2008-09. The key contributor to the Services sector was other services (24.9%) which includes education and skill development, healthcare services, social work and select informal sectors. It is followed by Real estate services (24.1%), Trade, hotels & restaurants (17.1%) and public administration (11.9%). The National Highway NH-16 (connecting Nizamabad in Andhra Pradesh and Jagdalpur in Chhattisgarh) passes through the district. With a CAGR of about 16.9% and 19.8% over the period from 2004-2009, communication and banking & insurance sectors respectively were among of the fastest growing sectors in the district, though their absolute sizes are small.

Figure 157: Percentage contribution to the Services sector (2008-09), Dantewada



Key Observations:

- The economy of Dantewada district is pre-dominantly Industry sector based, with its share in GDDP being 79.7% in 2008-09. This is followed by the Services sector with 12.2% share in the GDDP and Agriculture sector which has a share of around 8.1%.
- However, none of the sectors registered a high growth rate over the period 2004-09. While the Agriculture sector witnessed a negative CAGR of -1.1%, the Industry and Services sector registered a CAGR of about 1.1% and 1.8% during the period 2005- 2009.

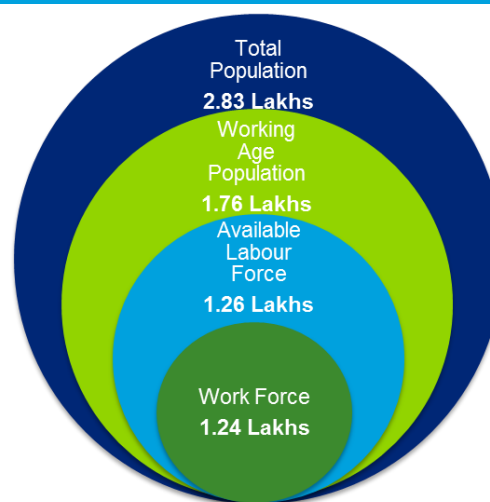
4.8.4 Employment Profile

With a total population of 2, 82,803 in the year 2011, Dantewada accounted for around 1.1% of the state's population.

The adjacent figure depicts the estimated workforce in Dantewada in the context of the total population of the district. Out of the total population of 2.8 Lakhs, the working age population (between 15-59 age group) constitutes nearly 62.3%.

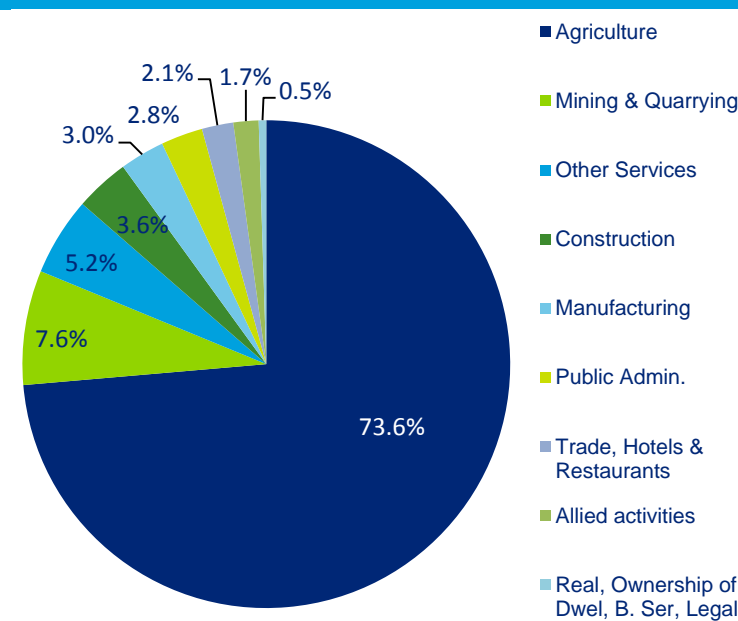
Based on the labor force participation rate and the worker participation rate estimates for the state, the available labour force is estimated to be around 1.26 lakhs, and the workforce is estimated at 1.24 lakhs or nearly 70% of the working age population. As of 2011, about three fourth of the workforce in Dantewada district is engaged in Agriculture sector followed by the Industry sector employing 14% of the total workforce and Services sector employing 11% of the total workforce.

Figure 158: Total Workforce in Dantewada (2011)



Source: Census 2011 and Deloitte Analysis

Figure 159: Sector-wise employment in Dantewada (2011)



Source: Census 2011 and Deloitte Analysis

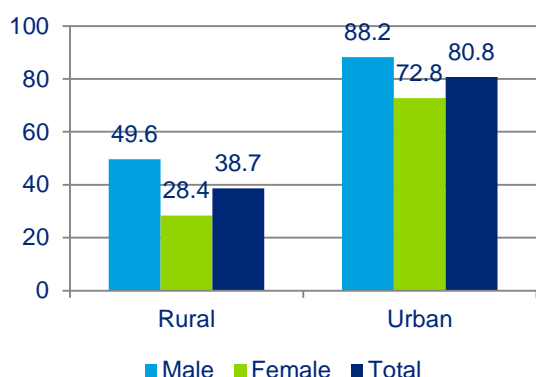
The sector-wise employment of Dantewada for the year 2011 has been shown in the adjoining figure. Agriculture accounted for around 73.6% of the total employment in the district followed by Mining and quarrying, other services (5.2%), construction (3.6%) and manufacturing (3.0%). There exists disparity between the sectoral contribution to GDDP and the proportion of people employed for the sectors. Sectors like mining and quarrying show very little proportion of employment when compared to the GDDP contribution as opposed to Agriculture which employs the bulk of people while contributing much less to the GDDP. The top five sectors in

the district in terms of employment account for around 92% of the total employment of the available workforce in Dantewada in 2011

4.8.5 Education Infrastructure

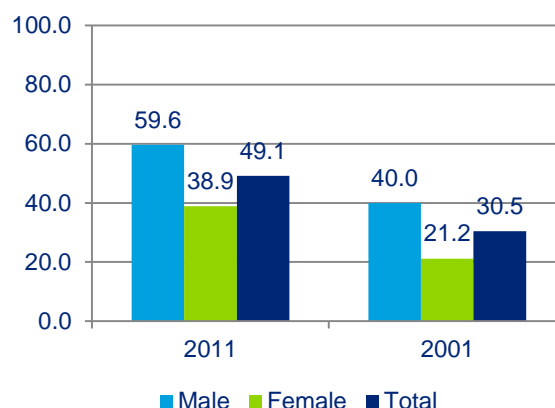
The literacy rate in Dantewada has significantly improved from 30.5%²¹² in 2001 to 49.1%²¹³ in 2011. However it is much lower than the state's literacy rate of 70.3% as well as the all-India literacy rate of 73%. In 2011²¹⁴, male and female literacy rates stood at 59.64% and 38.87% respectively, both figures registering considerable improvement over 2001²¹⁵, where the figures stood at 39.97% and 21.18% respectively.

Figure 160: Literacy rate 2011 (by residence), Dantewada



Source: Census of India 2011

Figure 161: Literacy rate (by Gender), Dantewada



Source: Census of India, 2001 and 2011

School Education

Dantewada has 787 primary schools, 303 upper primary schools, 31 secondary schools and 31 higher secondary schools. Net enrolment ratio (NER) at the upper primary level (28.4%) is considerably lower than the state NER of 67.8%.

Table 142: Status of school education infrastructure in Dantewada, 2013

#	Educational Statistics	Units in Dantewada	Units in Chhattisgarh	% Share State
1	Primary School	787	35588	2.2%
2	Upper Primary School	303	16442	1.8%
3	Secondary School	31	2632	1.2%
4	Higher Secondary School	31	3548	0.9%
5	NER (Primary) (2010-11)	93.7%*	98.0% ²¹⁶	-
6	NER (Upper Primary) (2010-11)	28.4%*	67.8%	-

Source: District Report Cards, DISE
* Data is for undivided Dantewada (including Bijapur and Sukma)

²¹² Data is for undivided Dantewada(including Bijapur and Sukma)

²¹³ Census 2011

²¹⁴ Ibid.

²¹⁵ Data is for undivided Dantewada(including Bijapur and Sukma)

²¹⁶ Data is for 2008-09

The district has started Potcabins-(Primary and Middle Schools) in many areas in the district in an effort to bring children from difficult areas into safe school and learning environments²¹⁷. Most of these schools are in locations easily accessible by road and all the facilities provided are for free.

The Chhoo Lo Aasmaan programme²¹⁸ was launched for the improvement & promotion of class 11th & 12th Science based education to prepare students for medical and engineering exams. It brings together science students studying in class 11 or 12 from villages and provides them with Special Coaching along with regular education & residential facilities at the District Headquarters. It then brings together a pool of quality science teachers who are very few in numbers to the Chhoo Lo Aasmaan centre to teach.

Additionally, in order to address the urgent need of providing an ideal educational environment to the children of this region, an Education City, a hub of various professional educational centres is being built over approximately 170 acres in Geedam Block of Dantewada district. It is expected to be fully operational by 2014.

Vocational Education

For vocational training, Dantewada has a total of 3 ITI's in the district; of which 1 is Government Industrial Training Institute and the other 2 are Private Industrial Training Institutes. There is no woman ITI in Dantewada. The total capacity of all the ITIs in the district is 360. The capacity of the government ITIs is 196 while that of the private ITIs is 164. Electrician and Fitter courses have the maximum units affiliated among ITIs. The number of courses available in the Govt. and Private ITIs and their capacity are listed in the table below:

Table 143: ITIs in Dantewada and their capacity

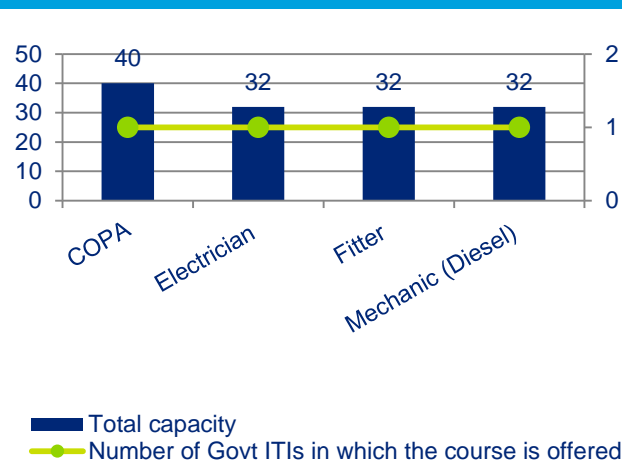
Name of ITI	Number of courses offered	Total Units affiliated	Total Capacity
Government Industrial Training Institute, Geedam	8	12	196
NMDC Ltd. D.A.V. Industrial Training Centre, Bhansi	5	9	136
NMDC Ltd. D.A.V. Industrial Training Centre, Nagarnar	2	2	28
Total	9*	23	360
Source: Department of Higher and Technical Education, Chhattisgarh; Deloitte Analysis			
*Total number of different courses offered by ITI's in Dantewada			

²¹⁷ Livelihood College Review Report, RedR India

²¹⁸ Ibid.

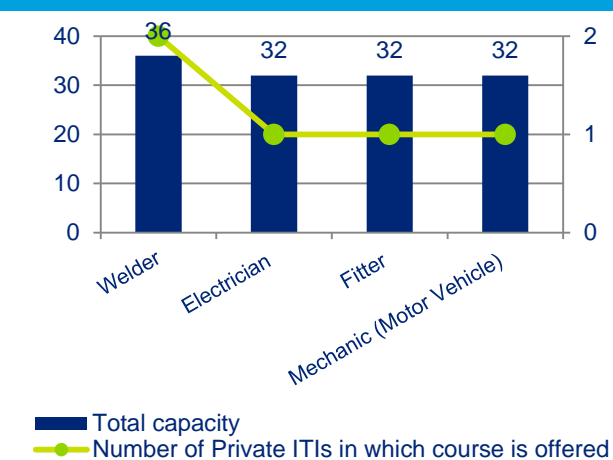
The major courses offered in the ITIs and their capacity in Dantewada is given in the figure below:

Figure 162: Major courses offered in Govt. ITIs and their capacity in Dantewada



Source: Department of Higher and Technical Education, Chhattisgarh; Deloitte Analysis

Figure 163: Major courses offered in Private ITIs and their capacity in Dantewada



Source: Department of Higher and Technical Education, Chhattisgarh; Deloitte Analysis

According to Chhattisgarh State Skill Development Mission Website, as of 12th March 2014, Dantewada has 33 Vocational Training Providers (VTPs) under which there are 1614 registered beneficiaries.

The following table highlights the courses offered in vocational education, which currently meet requirements of about 11 sectors.

Table 144: Courses offered in vocational education, Dantewada

Sector	ITI trades and Units affiliated	Courses Offered by VTPs
Auto and auto components Electronics and IT hardware	Electrician(2), Fitter(2), Mechanic(3), Welder(1)	Electrical, Electronics, Fabrication, Automotive Repairs
IT and ITES Tourism, hospitality and travel Organized retail Banking, financial services & insurance	Computer Operator and Programming Assistant(2), Stenography(1)	ICT, Soft skill, Hospitality, Retail, Travel & Tourism
Textiles and clothing		Garment making, Textile winding
Infrastructure (Transport, Energy, Water & Sanitation, Communication, Social & Commercial) Building, construction and real estate Construction material and building hardware		Construction, Telecom,
Unorganized sector (particular reference to agriculture, security, plumbing, domestic worker, foundry, etc.)	Wireman(1),	Refrigeration & Air conditioning, Paint, Handmade paper and paper products, Home décor-Art Flower, Bamboo Fabrication, Wood Work, Agriculture

Source: CSSDA Website

The following table highlights the NSDC partners present in Dantewada as of January 2014 and the courses offered by them:

Table 145: NSDC partners present in Dantewada

Name of Partner	Sectors in which course is offered	Courses offered
AISECT	IT or software	<ul style="list-style-type: none"> • Diploma In Computer Applications • Diploma In Computer Programming Applications • Post Graduate Diploma In Computer Applications
	ITES-BPO	<ul style="list-style-type: none"> • Diploma In Computer Applications • Post Graduate Diploma In Computer Applications
Source: NSDC		

Livelihood College

The Livelihood College, Dantewada, was established in 2011 with an objective to create employment and self-employment opportunities for young people (especially low-educated, unskilled and unemployed youth) from the district, catering to their livelihood needs through a variety of training and placement models at a centralized location with completely free residential facilities. It is an innovative experiment envisaged by the District Administration Dantewada for creating of skilled manpower from and within the youth of the District and also to provide ample chances of employment / self-employment to these trained youth. The first batch of training was conducted in October, 2011 on Solar Power Plant installation by the Chhattisgarh State Renewable Energy Development Agency (CREDA). The training programmes are selected and the duration is fixed according to the local needs as well as new emerging potential market needs. The courses run from anywhere between 15 days and 3 months, depending on the needs of the youth and the level of training required. The College provides complete residential facilities with free food and stay to candidates as well as its teaching staffs. In its initial eleven months, it has conducted around 57 skills based trainings training approximately 2023 candidates²¹⁹. The college has also offered around 16 courses²²⁰. The table below provides the details of the courses offered.

Table 8: Courses offered by Livelihood College, Dantewada

Agencies	Courses Conducted
CREDA	<ul style="list-style-type: none"> • Plumber • Solar Power Plant Repair • Biogas Masonry
Shilpagram	<ul style="list-style-type: none"> • Electrician • Plumber • Welding
Public Health Engineering Department (PHE), Dantewada	<ul style="list-style-type: none"> • Hand Pump Repair & Plumbing
IndiaCan	<ul style="list-style-type: none"> • Retail • Sales • Office Assistant • Accounts on Computer (Tally)
IL&FS	<ul style="list-style-type: none"> • Hospitality (Skills for Employment in Service Sector) • Industrial Stitching (Skills for Employment in Apparel Manufacturing).

²¹⁹ Livelihood College Review Report, RedR India

²²⁰ ibid.

SBI-RSETI	<ul style="list-style-type: none"> • Stitching • Computers (Tally)
Larson and Toubro, Mumbai	<ul style="list-style-type: none"> • Form Work Carpentry • Bar Bending • Masonry
Security Skills Council India Limited, Cuttack	<ul style="list-style-type: none"> • Security Guard Training
IGNOU	<ul style="list-style-type: none"> • Diploma Course in Computer Application • PG- Diploma Course in Computer Application
National Institute of Electronics and Information Technology (Formerly DOEACC)	<ul style="list-style-type: none"> • Diploma Course in Computer Application
Source: Livelihood College Review Report, RedR India	

The college has seen participation of training partners like CREDA, IndiaCan, IL&FS SESS, Security Guard Training and L&T. Partners like IndiaCan, IL&FS and ISAP run courses in collaboration with the NRLM. The college aims at providing integrated and planned provision of skill-based training to young people in the district, especially targeting those youth who have missed out on formal education opportunities.

Higher Education

The status of higher education in Dantewada is not very promising. Out of a total 590 colleges in the state, only 4 colleges are in the district of Dantewada indicating the district's share to be just 0.7% in the higher education space of the state. This is lower in comparison to the share of population of Dantewada to the state (1.1%). Out of 4 colleges present in the district, 3 offers general degree courses (affiliated to Bastar University) while 1 is an agricultural college (affiliated to Indira Gandhi Krishi Viswavidyalaya). The break-up of the number and capacity of higher education institutes in Dantewada is given below.

Table 146: Number and Capacity of Higher Education infrastructure in Dantewada

#	Colleges	Number	Estimated Capacity*
1	Arts, Science and Commerce	3	-
2	Agriculture	1	50
	TOTAL	4	-
*Source: University/College websites			

Key Observations:

- ✦ The share of Dantewada in the higher education space of the state is just 0.7% which is lower in comparison to its population share in the state (1.1%).

4.8.6 Youth Aspirations

Youth population constitutes the most important demographic section for a district from a skills development perspective. In the process of capturing the aspirations of the youth population in Dantewada, focused group discussions were held with youth from educational institutions as well as residing in rural areas to understand their concerns, areas of interest and future dreams and goals. 53% of the respondents in the youth survey and FGD were in the age group 15-20 while 42% of them were between 21-25 years. Remaining respondents were 26 years and above. The educational qualification of about 7% of the participants was ITI or diploma; around 10% of them were graduates and above while the remaining 83% were from high school level or below.

The key observations about aspirations of the youth of the district are highlighted below:

Table 147: Youth Aspiration – Key Responses – Dantewada

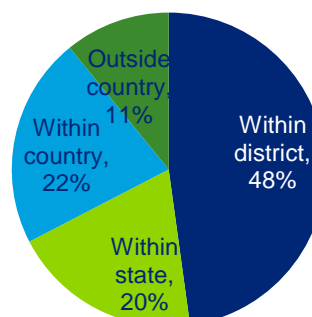
Parameters	Responses
Job Preference	<ul style="list-style-type: none"> Most of the youth preferred Government jobs over private jobs due to the job security offered in a Government job.
Preferred Course	<ul style="list-style-type: none"> Training for job readiness appears to be most popular among the youth in the district. Women are interested in job oriented courses like beauty parlor, tailoring & sewing etc. Boys are interested in learning computer related courses, computer software, TV repair, electrical work etc.
Migrating for job	<ul style="list-style-type: none"> Most of the youth (especially women) prefer jobs within the district. Since the job prospect within the district is low, they are forced to migrate to cities.
Salary Expectations	<ul style="list-style-type: none"> Average monthly salary expectation of youth ranges around Rs 8,000.
Areas of concern/ aspirations- Infrastructure	<ul style="list-style-type: none"> The youth expressed the need to increase the number of seats in the polytechnics. Youth reported poor quality of infrastructure in the institutes in terms of books in the library, building, laboratories etc. The need of hostel facility along with a good transportation system was also pointed out by the youth
Areas of concern/ aspirations-Course Curriculum	<ul style="list-style-type: none"> Students want professional training to increase their employability especially in the government sectors. Youth feel that institutes should focus more on soft skill and language training besides technical know-how, and it is critical for getting a good job.
Suggestions given by youth	<ul style="list-style-type: none"> The youth expect Govt. to take up initiatives to improve college infrastructure. Youth expressed that Govt. should take measures to provide proper education facilities to the poor people. The Government should open new institutes with more trades. The need for an increase in salary of the workers was also expressed by the students.

A sample survey was conducted with youth at gram panchayat level & those coming out from various educational institutions (Government & private) to understand & capture their aspirations. The findings are presented below:

Job preference by youth

The majority of the youth we surveyed (48%) prefer to get a job within their home district as is evident from the adjacent figure. Approximately 20% of them preferred for job within their state of residence. The survey highlights the fact that around 68% of the youth surveyed wanted to get a job within Chhattisgarh thus demanding and necessitating the creation of suitable positions and absorption capacity for them in the employment market. The survey reveals that not many youth are interested to migrate out of state in search of jobs.

Figure 164: Job Preference by Youth

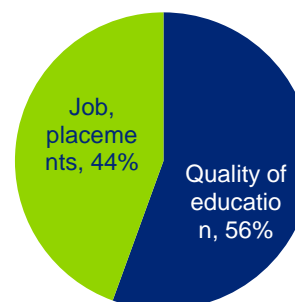


Source: Deloitte Analysis

Parameter for Institute Selection

Quality of education and future employment opportunities are the two major criteria of students for selection of an institute for higher education in the district. A majority of the students surveyed (56%) quoted the availability of better teaching facilities in the educational institution as their prime parameter while selection of an institute for higher education while the remaining students quoted job placement as the major criterion.

Figure 165: Parameter for Choice of Institute



Source: Deloitte Analysis

Youth Perception Mapping

Youth perception mapping was undertaken to understand their level of satisfaction with either their current institute or their experience and feedback on the available educational infrastructure. The results are summarized below:

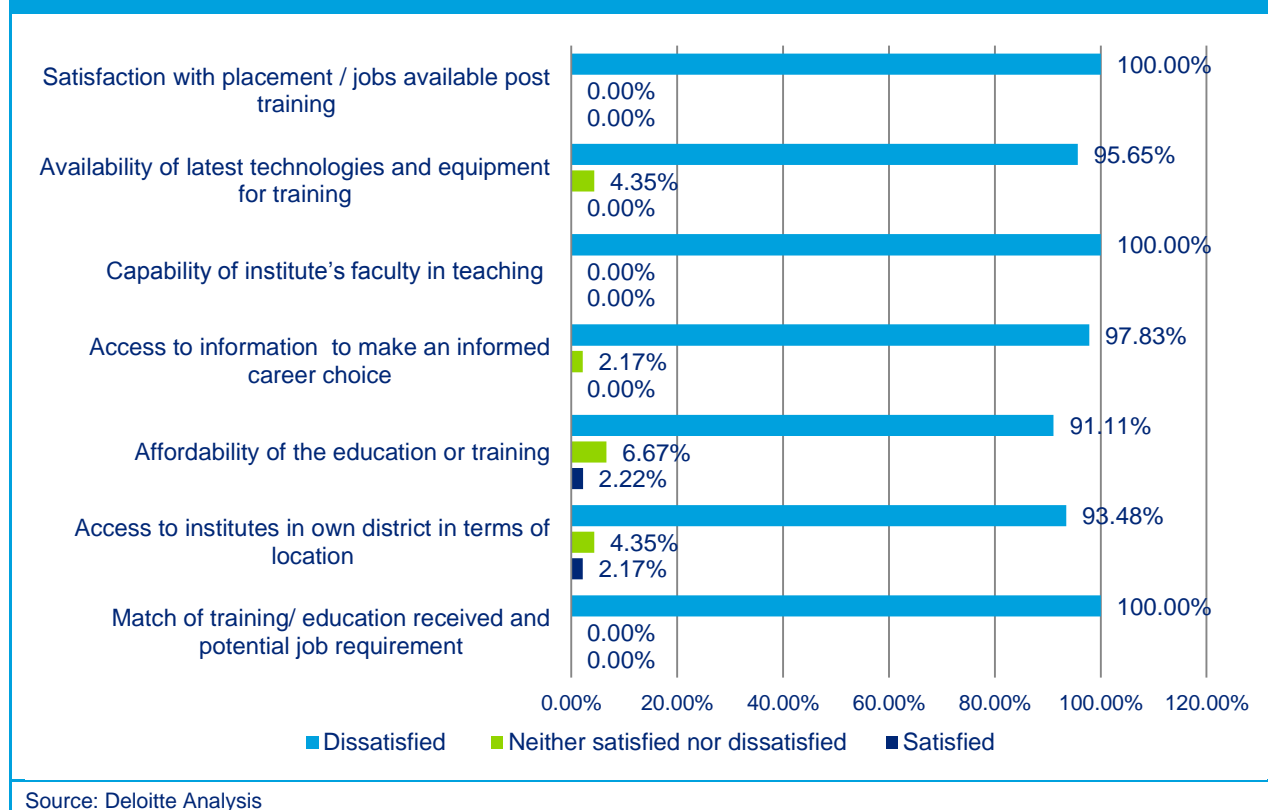
Dissatisfaction with placement / jobs available post training: Almost all the students surveyed expressed their dissatisfaction with the placement opportunities available in the institute or jobs available post training. They shared their expectation of being provided with a placement opportunity by the institute and the need for better salaries in the placement process.

Non-availability of latest technologies and equipment for training: Around 96% of the students surveyed expressed their dissatisfaction with the availability of latest technology & equipment for training in the institute. They felt the lack of equipment as a major constraint for their knowledge enhancement and appropriate level of skill development. They demanded that the institutes to be adequately equipped and upgraded with latest technology.

Dissatisfaction with capability of institute's faculty in teaching: Almost all the students feel the quality of teaching by faculty is not satisfactory and needs significant improvement. They demanded the

number of faculty to be increased as per the demand of the course and suggested inviting guest lecturers/visiting faculty from industry for providing inputs on the latest trend in the sector.

Figure 166: Youth Perception Mapping, Dantewada



Need for better access to information to make an informed career choice: Almost all the students 98% were dissatisfied as far as access to information to make an informed career choice is concerned. This showcases the importance of having career counseling to the potential students either at the school level or at the respective vocational institutes.

Affordability is as high a concern as quality and value for money in education or training: Majority of the students (around 91%) felt that the fees charged by the education/ training institute were a barrier for them and considered it to be unaffordable for them. They raised their concern that the quality of the training programme offered should be commensurate with the fees charged.

Access to institutes is an issue in rural areas: Around 93% of the students surveyed expressed their dissatisfaction with the accessibility of the educational institutes in terms of location. They voiced their need for better transport facilities for students in the district.

Dissatisfaction with the alignment of training/education received with job requirements: Almost all the students surveyed felt that the training/ education received by them does not match the potential job requirements of the employers and emphasized that there is a need to align the training/education provided by the educational institutes in the district in terms of job requirements of the business.

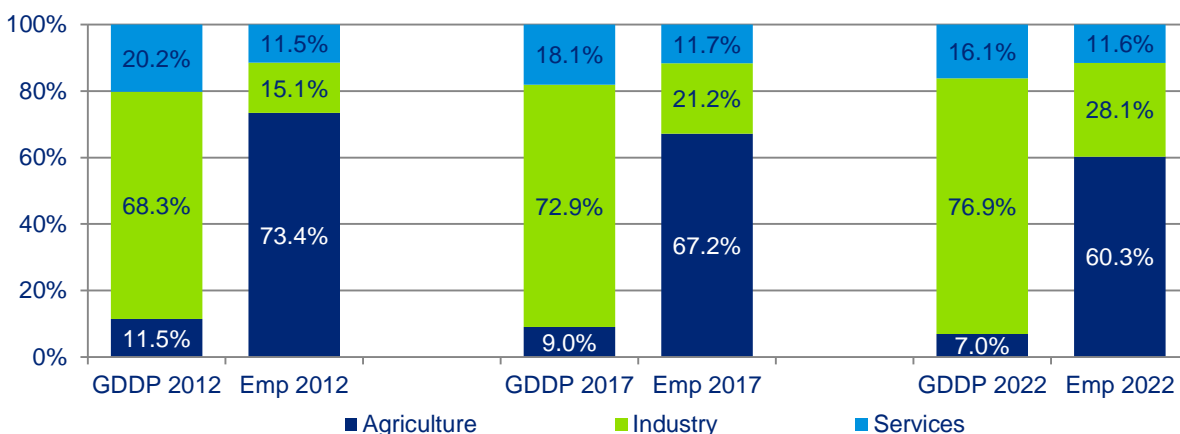
Key Observations:

- ♦ Govt. Jobs were preferred over private with an expected salary range of around Rs8000 /-.
- ♦ Around 68% of the youth surveyed wanted to get a job within Chhattisgarh thus necessitating the creation of suitable positions and absorption capacity for them in the employment market.
- ♦ The majority of the students surveyed (56%) select an institute for higher education on the basis of availability of better teaching facilities in the educational institution. Around 44% of the respondents quoted better employment opportunities as their prime parameter while selection of an institute for higher education.
- ♦ In terms of course preference, women are interested in job oriented courses like beauty parlor, tailoring and sewing etc. Boys are interested in learning computer related courses, mobile repairing, electrical work etc.
- ♦ Training for job readiness appears to be most popular among the youth in the district, with the Youth emphasizing the need for greater focus of institutes on soft skill and language training besides technical know-how.
- ♦ Need to address Infrastructure gaps - particularly updating the library and laboratory with latest computers, tools and equipment was also expressed.

4.8.7 Skill Gap Assessment

The working age population (15-59) constituting 62.3% of total district population in 2011, is expected to increase to 66.6% by 2022. Demand for jobs is expected to increase leading to the need for job creation. Similarly, to reap this demographic dividend, supply of labour must be adequately skilled.

Figure 167: Comparison of Sectoral share in GDDP & Employment, Dantewada



Source: Deloitte Analysis

The above figure also depicts the significant disparity in the structures of economy and employment in the district. Based on our analysis and primary interactions, the Agriculture sector is expected to be an important sector in terms of providing employment in the district and would account for the largest share of workforce over the decade. If the trends in employment continue, in 2021-22, the share of employment across the Agriculture sector is expected to decline to 60.3% as compared to 73.4% in 2012.

The Industry and Services sector employment share are estimated to increase to 28.1% and 11.6% respectively, as indicated in the table above. This trend appears to be in line with the national trend as well where people are moving out of the Agriculture sector and moving into the Industry and Services sectors respectively.

Incremental Human Resource Demand

As per the methodology, the total incremental demand for manpower in Dantewada by 2022 is expected to be 0.45 lakhs. Following table provides the break-up of the incremental demand for manpower in Dantewada as per skill level required.

Table 148: Estimated Incremental Human Resource Demand (in '00s) by Skill Level in Dantewada

	2012-17	2017-22	Total
Skilled	20	22	42
Semi-Skilled	50	57	107
Minimally Skilled	158	142	299
Total	228	220	448

Source: Deloitte Analysis

Some of the key trends observed on the demand side include

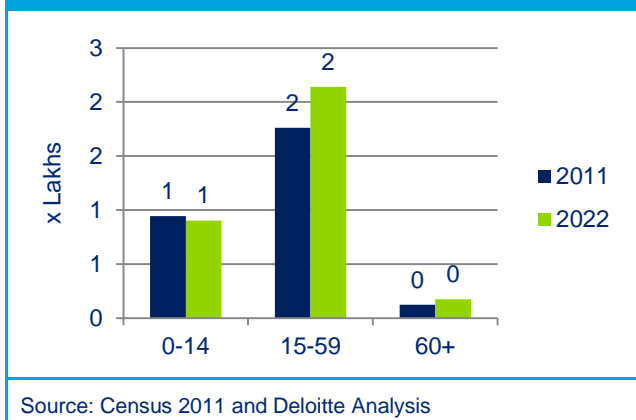
- ✦ *Mining and Quarrying is estimated be the largest incremental demand generating sector (52.5%) with demand largely in the minimally skilled level. Dantewada is rich in mineral resources. The district has availability of good quality Iron Ore in the Bailadila area which has one amongst the world's top quality Iron Ores with 60-68% Iron in the Ore. Bailadila also has availability of Blue Dust. Among other minerals, Tin Ore deposits have also been reported in the district. The district ranks 2nd in the state in terms of mineral revenue receipt in 2012-13.*
- ✦ *It is followed by Agriculture which is anticipated to be the 2nd largest incremental demand generating sector in the district accounting for around 13.6% of the total incremental manpower demand over the next decade (2012-22).*
- ✦ *The greatest incremental demand of employment is expected to come from the Industry sector which is estimated to account for 70.2% of the total incremental demand over the next decade (2012-22). The construction sector (18.2%), manufacturing –primarily mineral/metal based (3.6%) and Handlooms & handicrafts along with furniture and furnishing (3.5%) are likely to be the major contributors in the Industry sector.*
- ✦ *Within the Services Sector, Public administration and BFSI together contribute to around 2.7% of the incremental demand.*
- ✦ *Analysis of formal and informal employment indicates that the incremental demand for manpower in formal sector would come mainly from Mining and quarrying, Building and Construction, Manufacturing and Public Administration.*
- ✦ *Majority of demand for incremental manpower in the informal sector is projected to come from Agriculture, Mining and quarrying, Construction, and manufacturing sectors.*

Table 149: Incremental Human Resource Demand ('00) by Skill Level in Dantewada - Key Sectors

Table 149: Incremental Human Resource Demand (‘00) by Skill Level in Bankswada - Key Sectors									
#	Sector	2012-17				2017-22			
		Skilled	Semi-skilled	Minimally Skilled	Total	Skilled	Semi-skilled	Minimally Skilled	Total
1	Mining and Quarrying	9	28	56	94	14	43	85	142
2	Agriculture	1	3	28	32	1	3	25	29
3	Building & construction	3	9	10	23	4	11	13	28
4	Manufacturing(mineral /metal based)	1	4	1	7	2	5	2	9
5	Handloom and Handicrafts (including Furniture & Furnishing)	1	4	2	7	1	5	3	9
6	Public Administration	3	1	1	6	4	1	1	6
7	Banking/ Insurance/ Finance	2	1	0	3	2	2	0	5
8	Others	6	8	10	24	7	8	10	25
	Total	27	60	109	196	34	79	139	253
Overall Incremental Demand					449				
Source: Deloitte Analysis									

Incremental Human Resource Supply

Figure 168: Age wise distribution of population, Dantewada 2011 and 2022 (projected)



The population of Dantewada is expected to increase from 2.8 lakhs in 2011 to 3.2 lakhs in 2022. The adjacent figure provides the current and projected population across various age groups. As per the analysis, the number and proportion of children in 0-14 age group is projected to fall by about 0.04 lakh children, while the number of persons in the working age group is expected to increase by 0.4 lakh during the same period. This represents a potential demographic dividend for the district with a large increase in the employable population. On the other hand, it presents a huge challenge for state to make available higher education & skill development facilities as well as

ensure productive employment opportunities.

As per the methodology, the estimated incremental manpower supply over a period of 10 years (2012-22) will be about 0.45 lakh. Incremental manpower supply can be further classified into skilled, semi-skilled and minimally- skilled as per the education qualifications and estimated output of educational and vocational training institutes in the district.

Table 150: Estimated Incremental Human Resource Supply ('00s) by Skill Level in Dantewada

	2012-17	2017-22	Total
Skilled	20	22	42
Semi-Skilled	50	57	107
Minimally Skilled	158	142	299
Total	228	220	448

Source: Deloitte Analysis

Some of the key trends observed on the supply side include

- Proportion of incremental supply of minimally skilled manpower is projected to be the highest in the district amounting to a share of around 66.8% followed by semi-skilled (23.8%) and skilled (9.4%) manpower (2012-22)
- Out of a total 590 colleges in the state, only 4 (i.e. 0.7%) are present in the district of Dantewada. This also reflects in the proportion of skilled workforce in the district which is anticipated to be the least (~9%) and is likely to slightly increase over the decade.
- The supply of semi-skilled workforce is estimated to increase over the decade which is in-line with the current focus of government in improving the skill development space of the state.
- Impact of Migration is expected to be inward from other states and districts primarily across minimally skilled category and accounts for around 1.7% of the total supply in the district.

Incremental Demand Supply Gap

During the period 2012-22, the incremental human resource demand in Dantewada across all skill levels is estimated to be 0.45 lakhs while the supply is also projected to be around 0.45 lakhs indicating thus a match of demand-supply in the district over next decade. There is estimated to be an additional demand across skilled & semi-skilled category with an excess supply expected in minimally skilled segment.

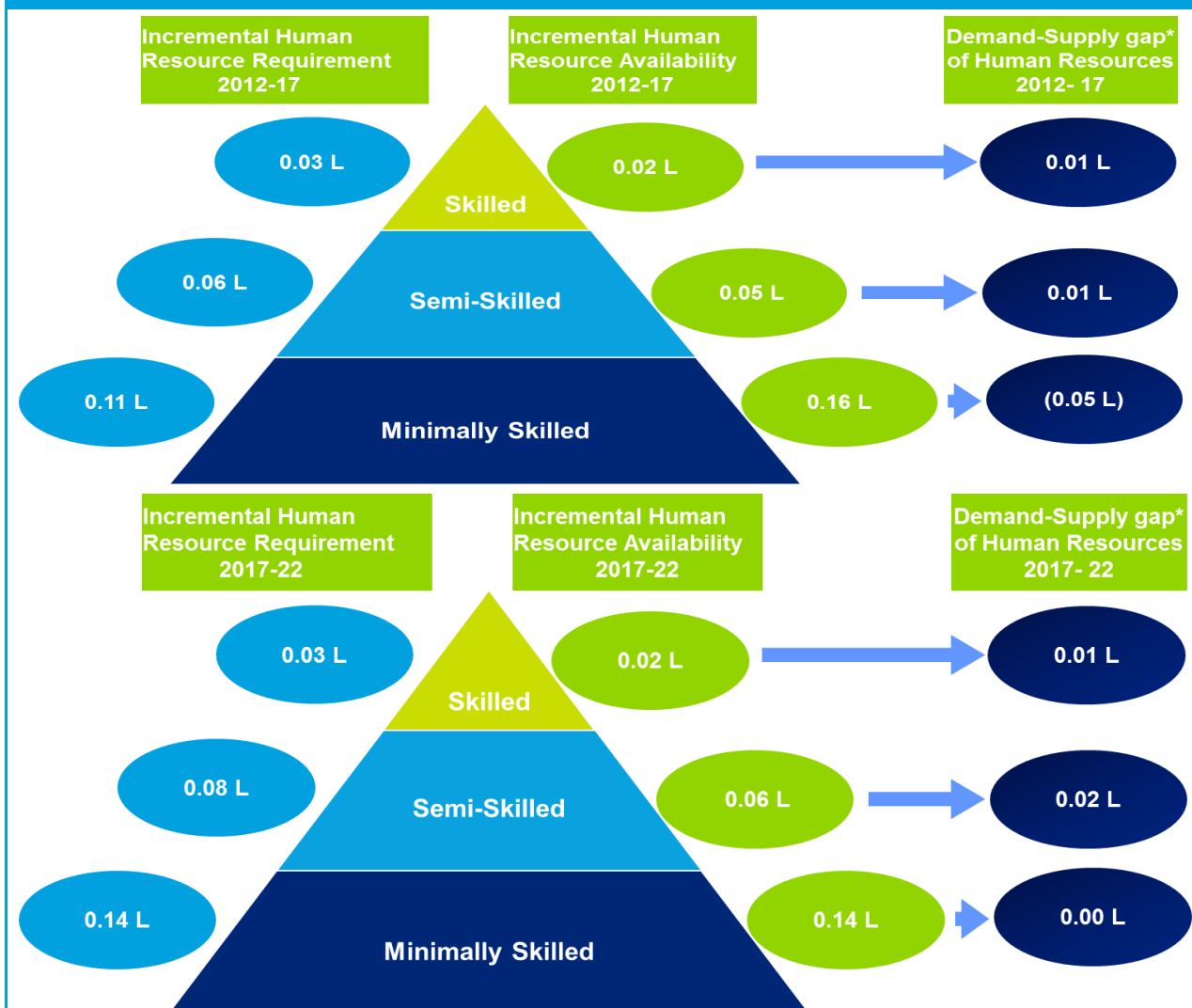
Table 151: Projected Demand Supply gap ('00) by skill levels in Dantewada

#	District Skill Gap	2012-17				2017-22			
		Skilled	Semi-skilled	Min. Skilled	Total	Skilled	Semi-skilled	Min. Skilled	Total
1	Incremental HR Requirement (Demand)	27	60	109	196	34	79	139	253
2	Incremental HR Availability (Supply)	20	50	158	228	22	57	142	220
3	Demand-Supply Gap	7	10	(49)	(33)	13	23	(3)	33
Overall Demand-Supply Gap					0				

Source: Deloitte Analysis

During the period 2012-22, the incremental manpower demand supply gap of the district (across all sectors mentioned above) is expected match as shown in the following figure.

Figure 169: Incremental Demand-Supply Gap (in lakhs), Dantewada



Source: Deloitte Analysis

Some of the key trends observed on the supply side include

- ♦ The composition of the human resource demand supply gap over the two different time periods i.e. 2012-17 and 2017-22 is anticipated to remain the same.
- ♦ The excess demand of skilled resources in the district is expected to continue over the decade and increase in future. This is in line with presence of few higher education institutes in the district. Moreover, there seems to be mismatch between outputs from higher educational institutions in the district (86% in general degree courses) to job specific skills required by sectors having high demand for skilled labor.
- ♦ Due to the excess demand of skilled workers, the existing semi-skilled work force in the district can be skilled appropriately to move to the next productive employment opportunity.
- ♦ The trend of excess supply is likely to continue in the semi-skilled and minimally skilled segments across both the periods. However, primary interactions have raised employability & deficit in specific jobs/ skills amongst workers as major concerns. These have been captured in the qualitative skill gaps section below. In terms of educational qualification, approximately 23% of the total semi-skilled workforce is estimated to be class 12 pass outs.

Qualitative Skill Gaps

The qualitative skill gaps that were highlighted during our primary interactions with industry at Dantewada are given in the table below.

Table 152: Qualitative Skill Gaps

Sector	Level	Skill Gap
Agriculture	Tractor operator and mechanics/ Electricians/ Mechanics for repair & maintenance of agricultural tools & implements	♦ Sufficient training to address tool & equipment failures like motor pump failure, gear damage, tyre puncture etc.
Manufacturing (mineral/ metal based)	Manager/Engineer	♦ Project Management and People Management Skills ♦ Knowledge of appropriate safety practices
	Supervisors	♦ Interpersonal and communication skills ♦ Understanding of quality concepts ♦ Understanding of product specifications
	Workmen/operators	♦ Understanding of discipline, industrial rules, work related procedures etc. ♦ Ability to carry out basic troubleshoot in case of machine breakdown
Building & construction	Project Managers/Engineers	♦ Knowledge of design and tools such as AutoCAD etc. ♦ Knowledge of green/eco-building design ♦ Project Management and People Management Skills ♦ Knowledge of appropriate safety practices
	Supervisors: plumbing, electrical, carpentry, masonry, drilling	♦ Skills in civil- operations of ready mix m/c, earth movers, etc. ♦ Basic repair and maintenance ♦ Exposure to right methodology in construction specific skills like lining, leveling etc. ♦ Site safety concepts and procedures
	Workmen: plumbing, electrical works, carpentry, masonry, drilling	♦ Basic operating skills related to relevant category ♦ Improved/ better quality in finishing ♦ Site safety concepts and procedures ♦ Ability to understand & follow instructions/ manuals

4.8.8 Recommendations

Growth Opportunities

In the context of the current profile and proposed investments in Dantewada, the demand-supply gap for human resources at various skill levels has been analyzed. The observations have been augmented by primary interactions with industry & industry association representatives in the district and government officials at the state and district level. Based on our analysis and considering factors like high growth and employment potential, priority sector for the state government, investment trends, etc., the following sectors/industries have been identified with future growth opportunities for employment and subsequently, skill development in Dantewada.

Table 153: Key Growth Sectors - Dantewada

#	Priority Sectors	Growth opportunities in skills development and employment
1.	Mining and Quarrying	<ul style="list-style-type: none"> Dantewada is rich in mineral resources. The district has availability of good quality Iron Ore in the Bailadila area which has one amongst the world's top quality Iron Ores with 60-68% Iron in the Ore. Bailadila also has availability of Blue Dust. Among other minerals, Tin Ore deposits have been reported in the district. The district ranks 2nd in the state in terms of mineral revenue receipt in 2012-13. Mining & Quarrying activities currently contributes around 52.5% in the district economic profile and is estimated to grow at around 8.0% over the decade (2012-22). It is currently the 2nd highest employer in the district after Agriculture and is anticipated to be the largest incremental employer in the district accounting for around 53% of the total incremental demand for manpower. It is expected to provide incremental employment to around 23,570 additional workers over the decade.
2.	Agriculture	<ul style="list-style-type: none"> Agriculture is the largest employer in the district currently providing employment to around 71% of the workers. It is anticipated to be the 2nd largest residual & largest incremental employer in Dantewada accounting for around 13.6% of the total incremental demand for manpower. Cultivation of paddy along with production of different varieties of pulses and vegetables is expected to employ a significant section of the workforce in the district.
3.	Building & construction	<ul style="list-style-type: none"> Construction is another major contributor in the district economy which is expected to grow at around 15% (2012-22). The total budgeted value for ongoing building and construction activities (building and roadwork) in Dantewada for the year 2013-14 is allocated at Rs. 16 crores. Building and construction is projected to be one of the chief employers in the district with approximately 11.5% of the total incremental demand for employment estimated to come from the sector.
4.	Manufacturing (metal/ mineral based)	<ul style="list-style-type: none"> Manufacturing sector is currently the third largest sub-sector in terms of economic activity and is expected to grow at approximately 13% over the period 2012-22. Although there are no large scale industries in the district, it has presence of the unit's ancillaries to the National Mineral Development Corporation Limited (NMDC). Additionally, as per the list of MoU's, two investments have been proposed by Essar Steel in the district. Furthermore, an Integrated Infrastructure Development Centre (IIDC) for small scale industries is being developed at Teknar by CSIDC. All these factors are expected to boost the sector over the next decade resulting thus in increasing manpower demand. It is anticipated to be the 4th largest employer of the district, providing employment to about 4% of the total incremental workers in Dantewada over the period 2012-22.

Considering the economic and skill landscape of Dantewada, the table below indicates the priority areas of focus for key stakeholders involved. These observations have been mainly derived from the growth opportunities identified above and through primary interactions with industry and industry association representatives in the district along with inputs from the students, training institutes and government.

Table 154: Key Recommendations for Stakeholders – Dantewada

Stakeholder	Priority Areas
NSDC	<p>NSDC can focus the efforts of its training partners in the key sectors identified in the district, viz.</p> <ul style="list-style-type: none"> ♦ Mining & Quarrying ♦ Agriculture ♦ Building and Construction ♦ Manufacturing – Mineral/metal based
Private training providers	<ul style="list-style-type: none"> ♦ There is a need for courses in mining & quarrying owing to the likely demand for more trained workers in the sector. Additionally, courses in agriculture, manufacturing (mineral/metal based) and building and construction can also be explored. ♦ There is a need for design and delivery of bridge courses with a focus on communication, language, basic IT and soft skills to make students job ready as highlighted in youth survey as well. ♦ There is a need to strengthen/improve the current technology and facilities/equipment in the institute as indicated by around 96% of the youth surveyed in the district. ♦ Since a majority of the population in the state is dependent on Agriculture, the private training providers should focus on training or providing extension support services in agricultural products processing, forestry and animal husbandry (including dairy & poultry) for the workers dependent on the sector. ♦ The training institutes should introduce/ substantiate multi-disciplinary courses in sectors such as manufacturing, building & construction etc. ♦ There is a need for capacity development of the current trainers through mentorship and Train the Trainer (TTT) programs. The private training providers should collaborate with sector specific Mentor Institutions for Capacity Development and Training programs (short term and long term) of trainers.
Government	<ul style="list-style-type: none"> ♦ The Government should promote and endorse vocational education as a practical alternative to formal education with emphasis on providing job ready courses. ♦ The Government should incentivize vocation education and subsequent certification for the workforce in the district in terms of wage revision. ♦ To encourage self-employment, the MSME-DI, Raipur should arrange multiple product-cum- process oriented programs in the district like Entrepreneurship Skill Development programmes (ESDPs), Entrepreneurship Development Programmes (EDPs), Industrial Motivation Camps (IMCs), BSDPs etc. for different groups of unemployed youth, people from weaker sections of the society, minorities, SCs & STs, technocrats, etc. with an objective of developing entrepreneurial qualities and preparing new entrepreneurs to setup their own small enterprises. ♦ Engage with industry players like Bhilai Steel Plant for undertaking courses in mining & quarrying for ensuring supply of sufficiently trained labour in the sector. ♦ Focus on training or providing extension support services in agricultural products processing, forestry and animal husbandry (including dairy & poultry) for the workers dependent on Agriculture.
Industry	<ul style="list-style-type: none"> ♦ More industry interactions should be initiated in the Mining and Quarrying, Agriculture, Building & Construction and manufacturing (mineral/metal based) sectors in the district. ♦ Industry players should provide inputs on the practical training component in the curriculum for ITIs and skill development institutes to improve the applied component of learning. 100% of the students surveyed in Dantewada expressed their dissatisfaction with the alignment of the training/education currently provided by the educational institutes in the district with the potential job requirements of the employers. ♦ Industry players should participate in relevant SSCs to provide inputs on the qualification requirement, course component etc. especially in the high growth sectors

Stakeholder	Priority Areas
	<p>identified in the district.</p> <ul style="list-style-type: none">♦ The major private players as well as public sector enterprises in the state should undertake and encourage vocational training as part of their CSR activities either by partnering with the Skill Development Institutes for training or providing funds/resources for the same.

4.9 Dhamtari

4.9.1 District Profile

Dhamtari district was formed in 1998 when the erstwhile Raipur district was divided into Raipur, Mahasamund and Dhamtari. It is situated in the fertile plains of Chhattisgarh. The district is part of Raipur division. It is surrounded by Raipur on the north, Durg on the north-west, Balod and Kanker on the west, Kondagaon and parts of Orissa on the south and Gariaband on the east. It extends over an area of 4082 sq. Km, which is 3% of the total state area. The district is divided into 4 tehsils viz. Dhamtari, Kurud, Nagari and Magarlod, 651 villages, 333 gram panchayats, 5 revenue circles and 124 Patwari Halkas. Dhamtari is the district headquarters. The principal river of the district is Mahanadi, which bifurcates the district into two.

Besides its rice mills, the district is also known for its rich cultural heritage and is famous for its dance styles, cuisine, music and traditional folk songs. ²²¹

Map 10: Dhamtari District



Table 155: Dhamtari District Profile

#	Indicator	Dhamtari	Chhattisgarh	% Share
1.	Area, in sq.km.	4082	135,190	3.0
2.	No. of sub-districts	4	149	2.7
3.	No. of inhabited villages	615	20126	3.1
4.	No. of households (in lakhs)	1.71	56.5	3.0
5.	Average Land holding size (Ha)	0.99	1.17	-
6.	Forest area cover	33.2% ²²²	41.3%	-
Source: Census 2011, Directorate of Economics and Statistics, Govt of Chhattisgarh and Forest survey of India, Ministry of Environment & Forest, 2011, Deloitte Analysis				

²²¹ <http://dhamtari.gov.in/>

²²² Data is for undivided Raipur and Dhamtari

4.9.2 Demography

As per Census 2011, Dhamtari has a population of 7,99,199 of which 81.3% of the people reside in the rural areas. The decadal population growth in Dhamtari during 2001-2011 was 13.1%, which is lower than the population growth of 19.8% during the period 1991-2001. According to Census 2011, Dhamtari ranks 12th amongst all the districts of Chhattisgarh. The urban share of population is lower than the state figure, but the sex ratio of the district is higher than that of the state. About 61.9% of the population is in the working age population class group. The district ranks 10th in the state in terms of per capita income.

Table 156: Demographic Indicators of Dhamtari

Demography	Dhamtari	Chhattisgarh
Population (2011)	7,99,199	2,55,40,196
Population 15-24 (2011)	1,67,091	49,89,339
Decadal Population Growth Rate (2001-11)	13.1%	22.6%
Population density per sq. km (2011)	196	189
Percentage of Urban Population (2011)	18.7%	23.2%
Percentage of SC population (2011)	7.0%	12.8%
Percentage of ST population (2011)	26.3%	30.6%
Average household size	4.68	4.54
Sex Ratio (2011)	1012	991
Working age population (15-59) as a percentage of total population, %	61.9%	60.1%
Per Capita Income (2009)	Rs. 20842 ²²³	Rs.28263

Source: Census of India 2011, UNFPA Population Projection, Directorate of Economics and Statistics- Govt. of Chhattisgarh

Key Observations:

- ♦ The sex ratio of Dhamtari at 1012 females per 1000 males is higher than the state figure of 991.
- ♦ The district has a low population growth rate (13.1%), and ranks 10th in terms of per capita income and 12th in terms of total population.

²²³ At 2004-05 constant prices

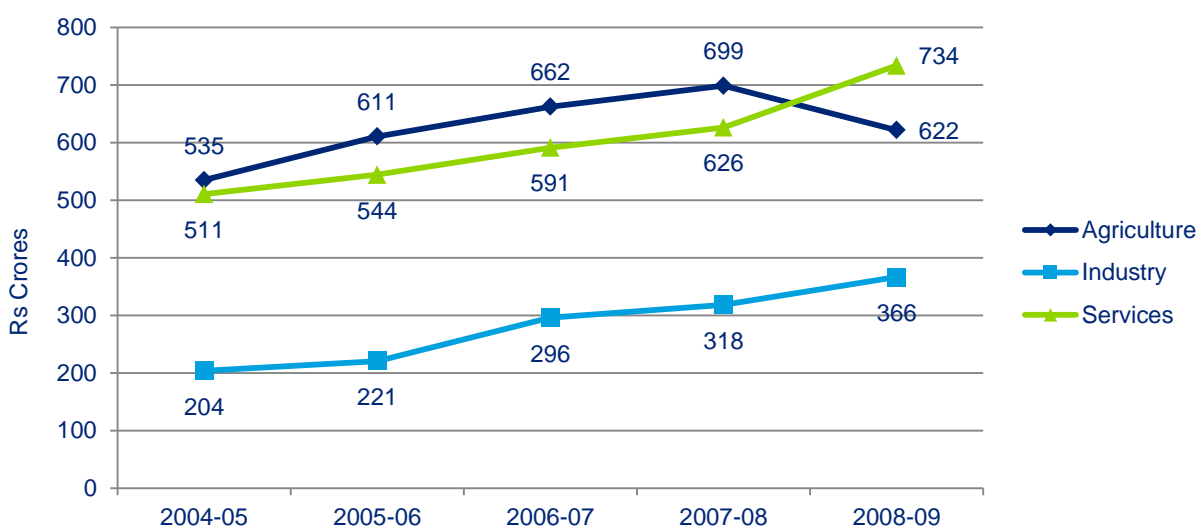
4.9.3 Economic Profile

Gross District Domestic Product (GDDP) of Dhamtari in the period 2005-09 has grown at a CAGR of 8.4% which is less than the state growth rate of 9.6% in the corresponding period. The GDDP of Dhamtari stood at 12th among the 27 districts in Chhattisgarh. In the year 2008-09, its GDDP was Rs 1721.7 crores (2008-09). The economy of Dhamtari contributes 2.5% of the Gross State Domestic Product.

The economy of Dhamtari district is primarily Services sector based with the Services sector's share in GDDP being 42.6% in 2008-09. It is followed by Agriculture sector with a sectoral share of 36.1% and Industry sector, which has 21.3% share in the GDDP. However, it is the Industry sector that has shown the highest growth rate in this period with a CAGR of 15.8%, as compared to the Services (9.5%) and Agriculture (3.8%) sectors.

The sector-wise GDDP growth and distribution from 2005-09 is given in the figures below:

Figure 170: GDDP contribution of different sectors from 2005-09, Dhamtari



Source: Directorate of Economics and Statistics- Govt. of Chhattisgarh

Agriculture Sector

The contribution of Agriculture sector (agriculture, forestry & logging and fishing) to GDDP was 36.1% in 2008-09. Agriculture is the main contributor in the total economic output of the Agriculture sector contributing about 49% in the year 2008-09 followed by forestry and logging (41.9%) and fishing (9.1%).

The chief reason behind the high productivity of crops in the district can be attributed to the fertile tracts of land through which the Mahanadi and its tributaries Sendur, Paity, Sondur, Joan, Kharun and Shivrath flow. The Ravishankar Sagar dam (Gangrel Dam) irrigates almost 570 square kilometers of land. Besides, the tropical climate of Dhamtari helps in the growth of crops. Paddy is the chief crop of the area. Other crops include Gram, Masoor, Urd, Tiwra and Mustard. People also grow varieties of vegetables and fruits like Mangoes, Bananas etc. Dhamtari is a NFSM district for pulses.

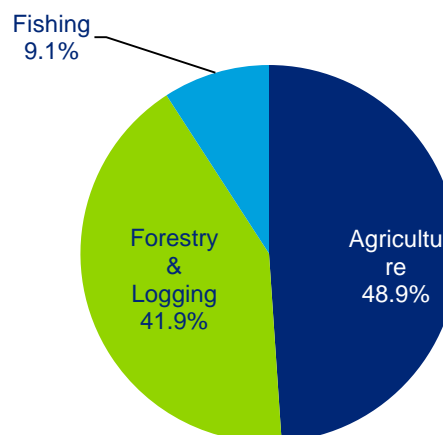
Another major source of income for the people in the district is collection of forest produce. There are dense Sal forests in the district. Besides medicinal plants and other plants like Saja, Tendu, Dhaura, Bija, Harra, Mahua etc. are also found in the district.

Industry Sector

The Industry sector (mining & quarrying, manufacturing, construction and electricity, gas & water supply) contributed 21.3% to the GDDP in 2008-09. Manufacturing and construction are major contributors in the Industry sector, with sectoral shares of approx.48% and 45.1% respectively.

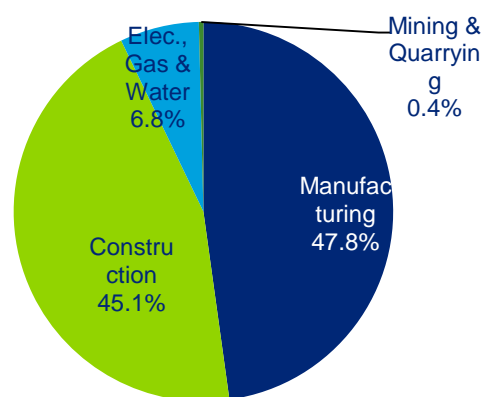
The district is not much industrially developed. Most of the people in the cities are involved in either the timber industry or in rice and/or flour milling. Dhamtari is famous for its rice mills. The district has more than 136 rice mills. As of 2010, the total investment in micro and small agro based industries was Rs. 38.85 crores. The PBS Oil Mill in Arjuni village of Dhamtari Tehsil and the ISA Power Project Ltd at the Banjari village of Kurud Tehsil are notable medium scale enterprises in the district. In the MSME sector, there are also clusters of lac industries and apparel making enterprises. Besides two hydro-power plants of 10 MW and 1.2 MW have been installed at the Ravishankar Sagar dam (Gangrel Dam). The investment in micro and small

Figure 171: Sub-sectoral break-up in Agriculture sector (2008-09), Dhamtari



Source: Directorate of Economics and Statistics- Govt. of Chhattisgarh

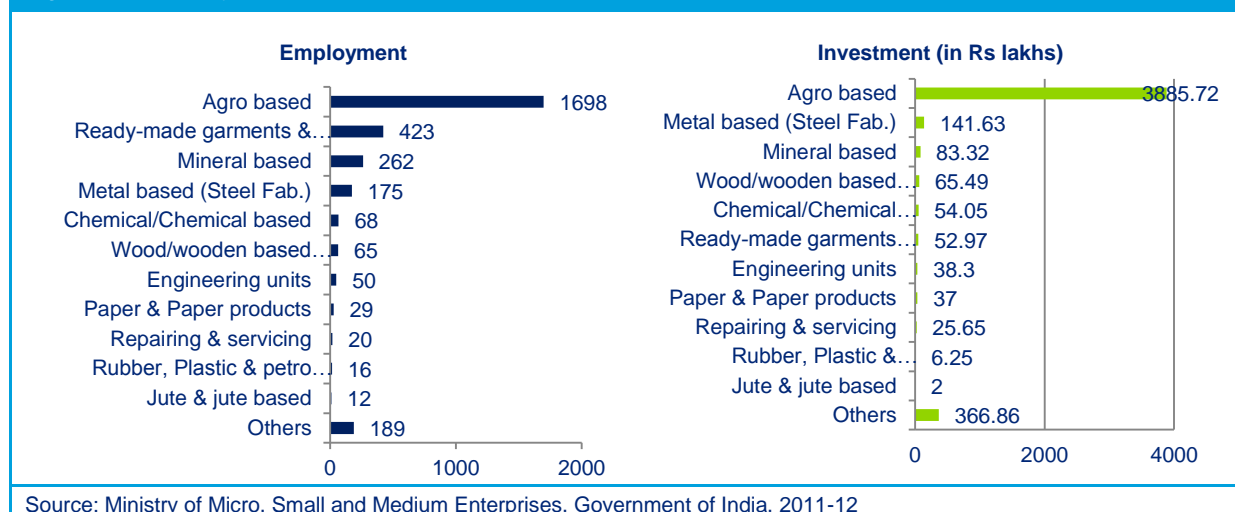
Figure 172: Sub-sectoral break-up in Industry sector (2008-09), Dhamtari



Source: Directorate of Economics and Statistics, Govt of Chhattisgarh

enterprises in the district is captured in the figure below. As evident from the figure, the key industries in the MSME sector mainly include agro based industries.

Figure 173: Employment and Investment (in Rs lakhs) in micro and small enterprises, Dhamtari



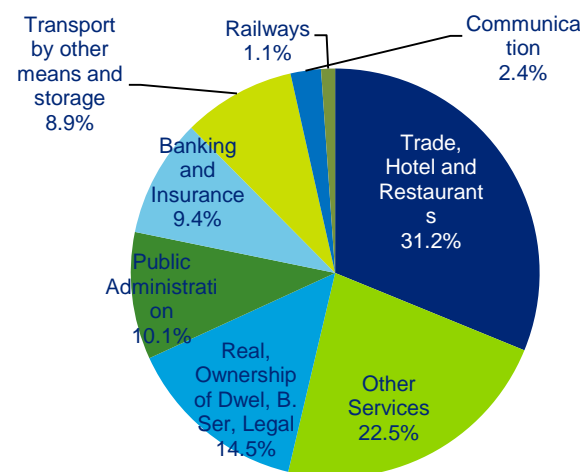
Source: Ministry of Micro, Small and Medium Enterprises, Government of India, 2011-12

Construction is also a major contributor within the Industry sector, with a sectoral share of about 45.1% in 2008-09. A total budgeted value for ongoing building and construction activities (building and roadwork) in Dhamtari for the year 2013-14 pegged at Rs. 127 crores shows the current focus of the district on the sector²²⁴. Owing to the state being rich in Non-wood Forest Product (NWFP), an Herbal Medicinal Park is being established in Bagaudh village of Kurudh Tehsil (30 km from New Capital Raipur City) in Dhamtari on about 100 ha of land. Dhamtari does not have much availability of minerals. However, significant lead deposits have been found in the area.

Services Sector

The Services sector contributed to about 42.6% of the GDDP in the year 2008-09. The key contributor to the sector is trade, hotel and restaurants contributing approximately 31.2% to the Services sector. The presence of rice mills and other agro based industries have helped in the growth of trade. The district is blessed with enchanting natural beauty and a vast reserve of wild animals. Ravishankar Water Dam, Vindhyavasini and Angarmoti temples and Sitanadi Wild Life sanctuary, which is a tiger reserve are popular tourist attractions in Dhamtari. The district is well connected to the rest of the state by road

Figure 174: Percentage contribution to the Services sector (2008-09), Dhamtari



Source: Directorate of Economics and Statistics- Govt. of Chhattisgarh

²²⁴ Public Works Department, Chhattisgarh

networks. NH 43, which connects NATAVALASA in Andhra Pradesh and Raipur, the state capital of Chhattisgarh passes through the district.

With a CAGR of about 16.5% and 19.8% over the period from 2004-2009, Communication and Banking & Insurance sectors respectively were among of the fastest growing sectors in the district, though their absolute sizes are small.

Key Observations:

- ✦ The economy of Dhamtari district is primarily Services sector based with the Services sector's share in GDDP being 42.6% in 2008-09. It is followed by Agriculture sector with a sectoral share of 36.1% and Industry sector, which has 21.3% share in the GDDP.
- ✦ However, it is the Industry sector that has shown the highest growth rate in this period with a CAGR of 15.8%, as compared to the Services (9.5%) and Agriculture (3.8%) sectors.

4.9.4 Employment Profile

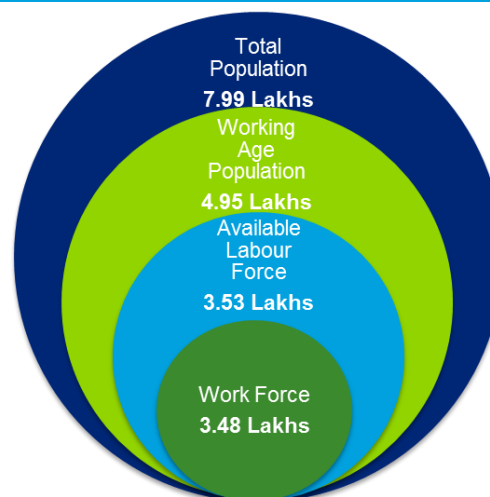
With a population of around 8 lakhs, Dhamtari accounted for nearly 3.1% of the state's population.

The figure below depicts the estimated workforce in Dhamtari in the context of the population of the district. Out of the total population of 7.99 Lakhs, the working age population (between 15-59 age group) constitutes nearly 61.9%.

Based on the labor force participation rate and the worker participation rate estimates for the state, the available labour force is estimated to be 3.53 lakhs, and the workforce is estimated at 3.48 lakhs or nearly 70% of the working age population. **Almost four-fifth of the workforce in the district is engaged in Agriculture sector** in

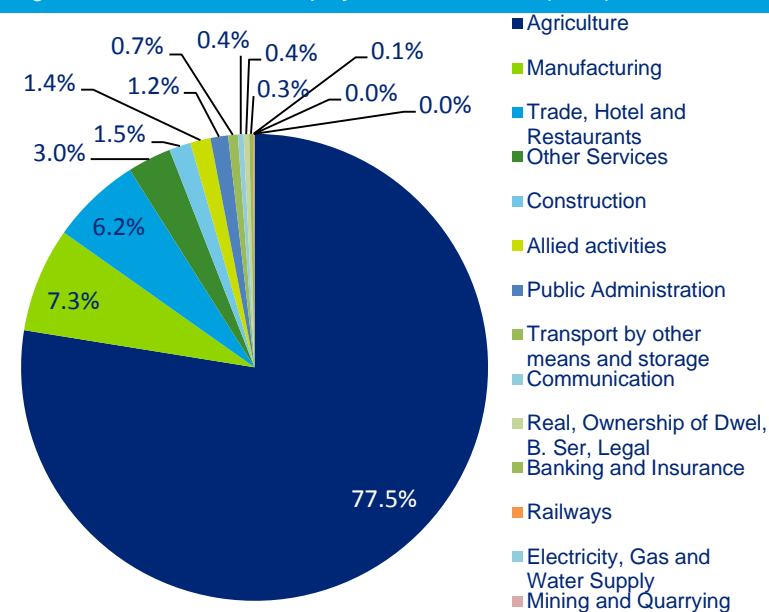
2011, followed by the Services sector which employs 12.3% of the workforce and Industry sector which employs 8.8% of the total workforce.

Figure 175: Total Workforce in Dhamtari (2011)



Source: Census 2011 and Deloitte Analysis

Figure 176: Sector wise employment in Dhamtari (2011)



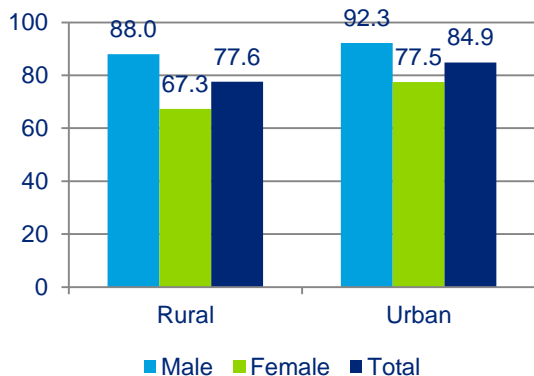
Source: Census 2011 and Deloitte Analysis

The sector-wise employment of Dhamtari for the year 2011 has been shown in the adjoining figure. Agriculture contributed to 77.5% of the total employment in the district. Manufacturing was the second highest employer in the district (7.3%), while trade, hotels and restaurants employed 6.2% of the total workforce. There exists disparity between the sectoral contribution to GDDP and the proportion of people employed for the sectors. Sectors like manufacturing and trade, hotels & restaurants show very little proportion of employment when compared to the GDDP contribution as opposed to Agriculture which employs the bulk of people while contributing much less to the GDDP.

4.9.5 Education Infrastructure

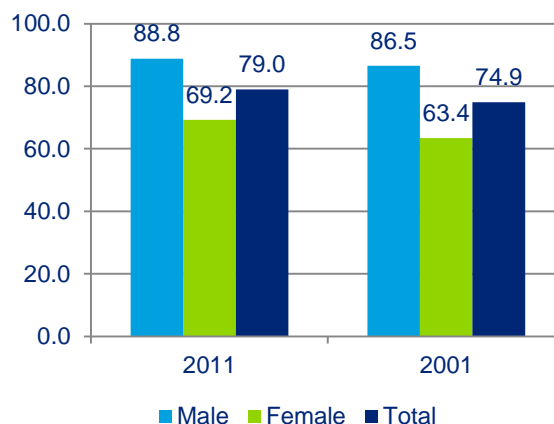
The literacy rate in Dhamtari has improved from 74.9% in 2001 to 79% in 2011. It is significantly higher compared to the state's literacy rate of 70.3% in 2011 as well as the all-India literacy rate of 73%. In 2011, male and female literacy rates stood at 88.8% and 69.2% respectively, both figures improving compared to the 2001 figures of 86.5% and 63.4% respectively.

Figure 177: Literacy rate 2011 (by residence), Dhamtari



Source: Census of India 2011

Figure 178: Literacy rate (by Gender), Dhamtari



Source: Census of India, 2001 and 2011

School Education

Dhamtari has 996 primary schools, 546 upper primary schools, 81 secondary schools and 131 higher secondary schools. Net enrolment ratio (NER) at the upper primary level (70%) is higher than the state NER of 67.8%.

Table 157: Status of school education infrastructure in Dhamtari, 2013

#	Educational Statistics	Units in Dhamtari	Units in Chhattisgarh	% Share of District in State
1	Primary School	996	35588	2.8%
2	Upper Primary School	546	16442	3.3%
3	Secondary School	81	2632	3.1%
4	Higher Secondary School	131	3548	3.7%
5	NER (Primary) (2010-11)	88.5%	98.0%*	-
6	NER (Upper Primary) (2010-11)	70.0%	67.8%	-

Source: DISE 2012-13 * Data is for 2008-09

Vocational Education

For vocational training, Dhamtari has a total of 7 ITI's in the district, all of which are Government Industrial Training Institutes. Dhamtari does not have any woman ITI. The total capacity of the ITIs in the district is 1104. Electrician and Fitter courses have the maximum units affiliated among ITIs.

The number of courses available in ITIs and their capacity are listed in the table below:

Table 158: ITIs in Dhamtari and their capacity

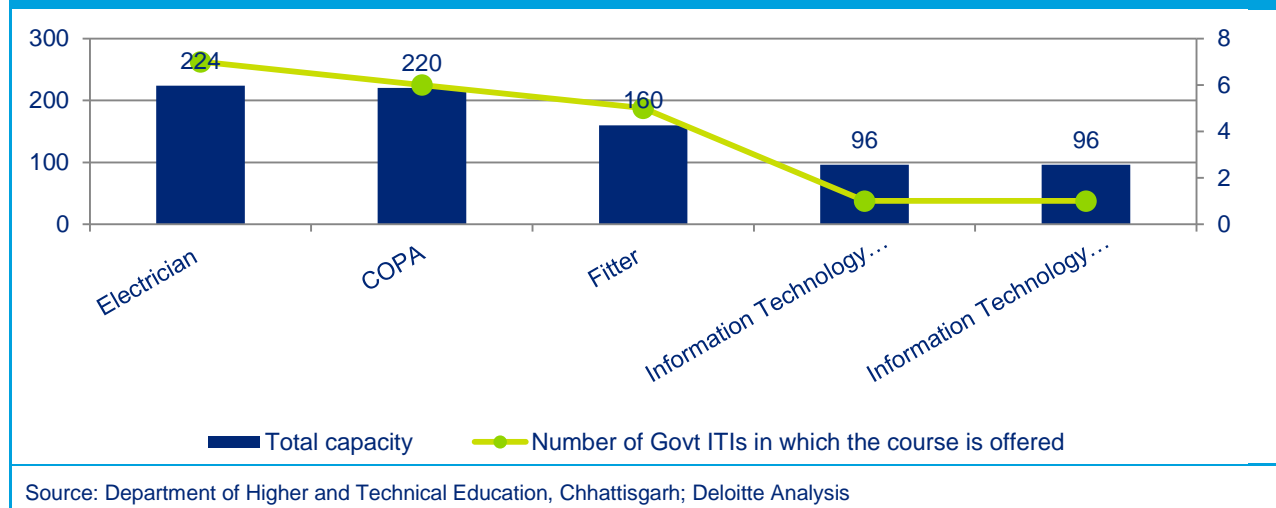
Name of ITI	Number of courses offered	Total Units affiliated	Total Capacity
Government Industrial Training Institute, Dhamtari	3	6	104
Government Industrial Training Institute, Kurud	11	26	416
Government Industrial Training Institute, Nagari-Sihava	2	3	48
Government Industrial Training Institute, Magarlod	3	6	104
Government Industrial Training Institute, Megha	5	9	144
Government Industrial Training Institute, Bhakhara	5	9	144
Government Industrial Training Institute, Kareli	5	9	144
Total	12*	68	1104

Source: Department of Higher and Technical Education, Chhattisgarh; Deloitte Analysis

*Total number of different courses offered by ITI's in Dhamtari

The major courses offered in the ITIs and their capacity in Dhamtari is given in the figure below:

Figure 179: Major courses offered in ITIs and their capacity in Dhamtari



According to Chhattisgarh State Skill Development Mission Website, as of 12th March, 2014, Dhamtari has **132 Vocational Training Providers (VTPs)** under which there are 4688 registered beneficiaries.

The following table highlights the courses offered in vocational education, which currently meet requirements of about 14 sectors.

Table 159: Courses offered in vocational education, Dhamtari

Sector	ITI trades and Units affiliated	Courses Offered by VTPs
Auto and auto components Electronics and IT hardware Chemicals and pharmaceuticals	Electrician(14), Fitter(10), Mechanic and machinist (4), Welder(7)	Electrical, Electronics, Fabrication, Automotive Repairs, Production and manufacturing, Chemical
IT and ITES Tourism, hospitality and travel Organized retail Media and entertainment Banking, financial services and insurance	Computer Operator and Programming Assistant(11), Information Technology(12), Stenography(2), Driver cum mechanic (5)	ICT, Soft skill, Banking & Accounting, Retail, Hospitality, Business & Commerce, Media sector, Printing
Textiles and clothing Food processing	Cutting and Tailoring(1) Rice Mill Operator(2)	Textile sector, Garment making, Toy making, Bakery & Confectionary, Fruit & Vegetable Preservation, Food preservation
Infrastructure (Transport, Energy, Water & Sanitation, Communication, Social & Commercial) Building, construction and real estate Construction material and building hardware		Construction, Material Management, Rain Water Harvesting
Unorganized sector (particular reference to agriculture, security, plumbing, domestic worker, foundry, etc.)		Paint, Refrigeration & Air conditioning, Beauty culture and hair dressing, Clock and watch Repair, Jute sector, Agriculture, Animal husbandry, Poultry, Fisheries
Source: CSSDA Website		

The following table highlights the NSDC partners present in Dhamtari, as of January 2014 and the courses offered by them.

Table 160: NSDC partners present in Dhamtari

Name of Partner	Sectors in which course is offered	Courses offered
AISECT	IT and computer skills	<ul style="list-style-type: none"> Post graduate diploma in computer applications Diploma in computer applications Diploma in computer programming applications Certificate in Word Processing / Typewriting (Hindi/English) (CWP) Certificate in computer applications
	ITES-BPO	<ul style="list-style-type: none"> Post graduate diploma in computer applications Diploma in computer applications Diploma in computer programming applications Tally
Source: NSDC		

Higher Education

Out of a total 590 colleges in the state, 20 (3.4%) are in the district of Dhamtari. This is comparable to the share of population of Dhamtari to the state (3.1%). However, **75% of the colleges offer general degree courses** (Arts, Science and Commerce). There are no medical, dental or technical colleges in the district. However there is a physiotherapy college viz. Escorts Physiotherapy College. Besides, there are 3 Agriculture colleges, which are affiliated to Indira Gandhi Agricultural University, Raipur. All the arts, science and commerce colleges are affiliated to Pt. Ravishankar Shukla University, Raipur. Dhamtari also has a Govt. Polytechnic Institute.

Table 161: Number and Capacity of Higher Education infrastructure in Dhamtari

#	Colleges	Number	Estimated Capacity*
1	Arts, Science and Commerce	15	-
2	Nursing	1	78
3	Other medical	1	69
4	Agriculture	3	144
	TOTAL	20	-
*Source: University/College websites			

Key Observations:

- ♦ There are 7 ITI's and 132 VTPs active in the district.
- ♦ 15 out of 20 colleges in the district offer general degree courses.

4.9.6 Youth Aspirations

Youth population constitutes the most important demographic section for a district from a skills development perspective. In the process of capturing the aspirations of the youth population in Dhamtari, focused group discussions were held with youth from educational institutions as well as residing in rural areas to understand their concerns, areas of interest and future dreams and goals. The FGD in Dhamtari was conducted at the Gram Panchayat Bhavan of Jamvargao. 75% of the respondents were in the age group 15-20 while 19.2% of them were between 21-25 years. Remaining 5.8% of the respondents were 26 years and above. The educational qualification of about 54.9% of the participants ITI or diploma, 41.2% were from high school while the remaining 3.9% of them were graduates or above.

The key observations about aspirations of the youth of the district are highlighted below:

Table 162: Youth Aspiration – Key Responses – Dhamtari

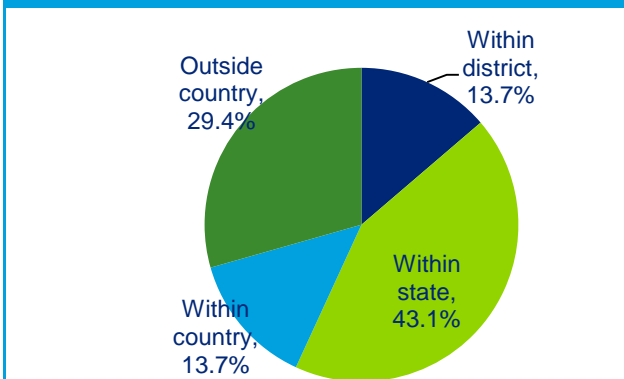
Parameters	Responses
Job Preference	<ul style="list-style-type: none"> Students want to be employed in Govt. sector as well as in private sector. Some of the students want to join Police.
Preferred Course	<ul style="list-style-type: none"> Training for job readiness appears to be most popular among the youth in the district. People want to get training in the computer software, TV repair, electrical work etc.
Migrating for job	<ul style="list-style-type: none"> Most of the youth prefer jobs within the state. Women want to work within district. Males are willing to go outside district for jobs.
Salary Expectations	<ul style="list-style-type: none"> Average monthly salary expectation of youth ranges between Rs 8000-9000/-
Areas of concern/ aspirations- Infrastructure	<ul style="list-style-type: none"> Youth reported poor quality of infrastructure in the institutes in terms of building, toilets, library, etc.
Areas of concern/ aspirations-Course Curriculum	<ul style="list-style-type: none"> Youths expressed the need for resourceful and good teachers. There should be awareness generation camps for training programmes. Youth feel that institutes should have more tie-ups between industries and institution
Suggestions given by youth	<ul style="list-style-type: none"> The youth expect Govt. to take up initiatives to improve college infrastructure. Youth expressed that Govt. should take measures to provide proper education facilities to the poor people. There should be more courses, practical classes, resourceful, efficient and regular teachers available in the institutes. The Government should open new institutes with more trades. There should be more tie-ups between industries and institutions.

A sample survey was conducted with youth at gram panchayat level & those coming out from various educational institutions (Government & private) to understand & capture their aspirations. The findings are presented below:

Job preference by youth

The majority of the youth we surveyed (43%) **prefer to get a job within their home state** as is evident from the adjacent figure. Approximately 13.7% of them preferred for job within their district of residence. The survey highlights the fact that around **56.8% of the youth surveyed wanted to get a job within Chhattisgarh** thus demanding and necessitating the creation of suitable positions and absorption capacity for them in the employment market. The survey reveals that not many youth are interested to migrate out of state in search of jobs.

Figure 180: Job Preference by Youth



Source: Deloitte Analysis

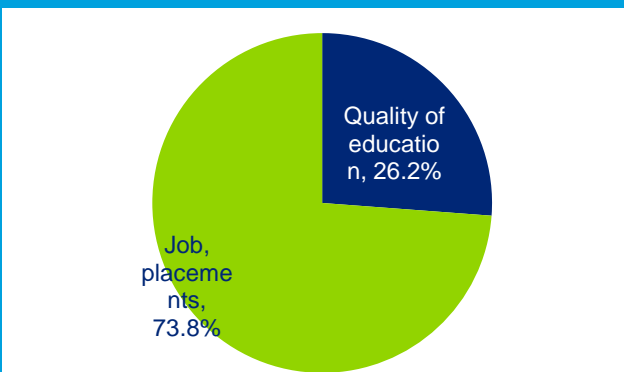
Parameter for Institute Selection

A majority of the students surveyed (73.8%) at the gram panchayat level quoted the **job placement in the institute** as their prime parameter while selection of an institute for higher education. Almost One-fourth of them mentioned the **quality of education in their area to take admission in any of the institute available**

Youth Perception Mapping

Youth perception mapping was undertaken to understand their level of satisfaction with either their current institute or their experience and feedback on the available educational infrastructure. The results are summarized below:

Figure 181: Parameter for Choice of Institute



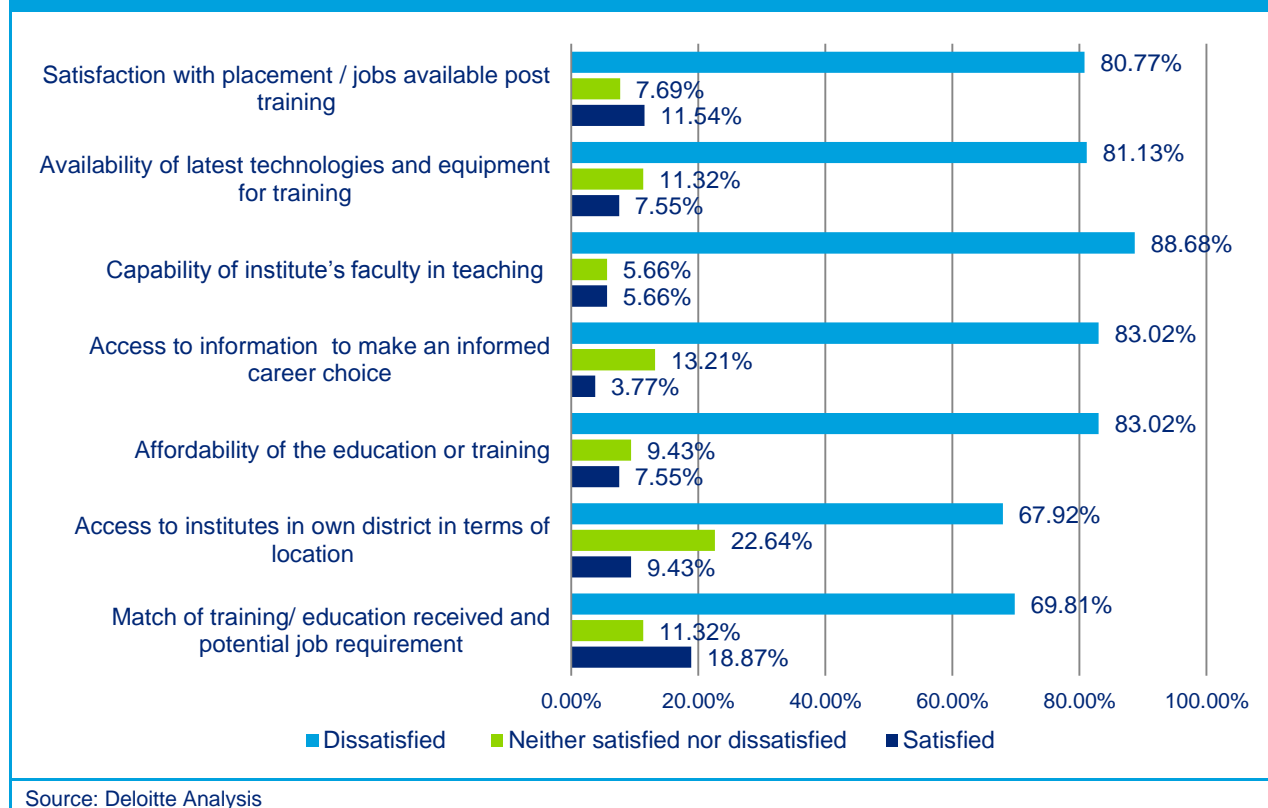
Source: Deloitte Analysis

Low satisfaction with placement / jobs available post training: Around 11.6% of the students surveyed expressed their satisfaction with the placement opportunity available in the institute or jobs available post training. While around **81% of them felt the job opportunities available to them post training were not satisfactory**. They shared their expectation of being provided with a placement opportunity by the institute or facilitate a tie-up with nearby companies to give them an experience of hands on training.

Non-availability of latest technologies and equipment for training: **81.1% of the students surveyed expressed their dissatisfaction** with the availability of latest technology & equipment for training in the institute while only 8% of them shared their satisfaction with the same. They felt the lack of equipment as a major constraint for their knowledge enhancement and appropriate level of skill development. They demanded that the institutes to be adequately equipped and upgraded with latest technology.

Dissatisfaction with capability of institute's faculty in teaching: Around 89% of the students (especially the students from Government ITI's) feel the **quality of teaching by faculty** is not satisfactory and needs significant improvement. They demanded the number of faculty to be increased as per the demand of the course and the **lack of quality faculty in the institute to be compensated by inviting visiting faculty from outside**.

Figure 182: Youth Perception Mapping, Dhamtari



Need for better access to information to make an informed career choice: Majority of the students were dissatisfied as far as access to information to make an informed career choice is concerned. Only 4% of the students vouch for accessibility to information to make an informed career choice, while 83% of them felt that they did not get proper accessibility to information to make an informed career choice. This showcases the importance of having career counseling to the potential students either at the school level or at the respective vocational institutes.

Affordability is as high a concern as quality and value for money in education or training: Majority of the students (around 83%) felt that the fees charged by the education/ training institute were a barrier for them and considered it to be unaffordable for them. They also raised their concern that the quality of the training programme offered should be commensurate with the fees charged.

No Access to institutes is an issue in rural areas: 68% of the students surveyed expressed their **dissatisfaction with the accessibility** of the educational institutes in terms of location. They felt the educational institutes to be inaccessible in terms of location and majority of them were rural youth. Around 9% students felt the educational institutes to be accessible in terms of location.

Dissatisfaction with the alignment of training/education received with job requirements: Approximately 70% of the students surveyed feel that the training/education currently provided by the educational institutes in the district is not in alignment with the potential job requirements of the employers. Thus, the survey brings out the need to make appropriate changes in the course curriculum to make the same more application based and industry relevant.

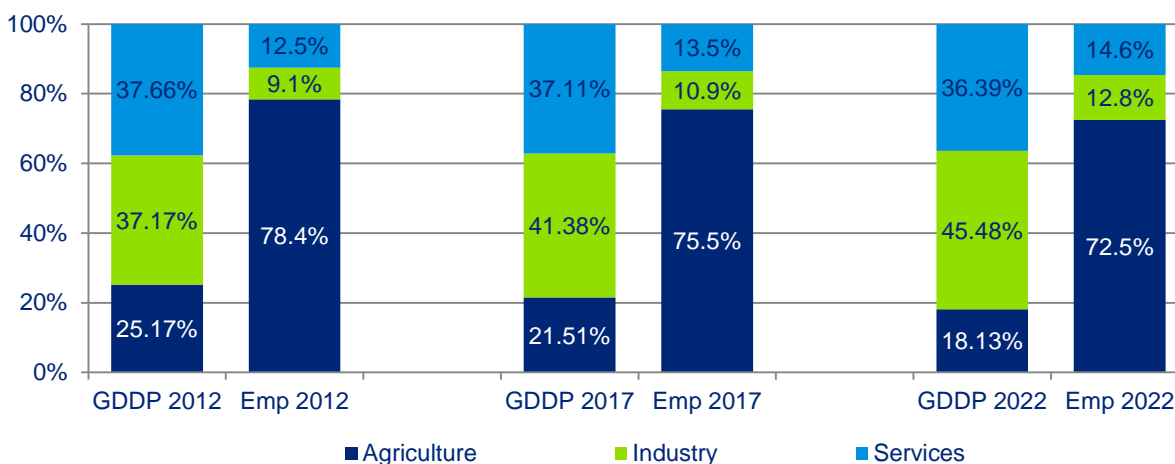
Key Observations:

- ♦ Students want to be employed in Govt. sector as well as in private sector, the expected salary ranges from Rs.8000-9000 /-.
- ♦ People want to get training in the computer software, TV repair, electrical work etc.
- ♦ Need for updating course content & creating linkages for placement was strongly expressed
- ♦ Improving institute-industry interface to ensure better apprenticeship training was emphasized
- ♦ Training for job readiness appears to be most popular among the youth.
- ♦ Need to address infrastructure gaps - particularly updating the toilet, libraries, buildings, tools and equipment was expressed
- ♦ Youth expressed the need for resourceful and better teachers in the institutes.
- ♦ Youth are not aware about the different Government initiatives on skill development.

4.9.7 Skill Gap Assessment

The working age population (15-59) constituting 61.9% of total district population in 2011, is expected to increase to 64.9% by 2022. Demand for jobs is expected to increase leading to the need for job creation. Similarly, to reap this demographic dividend, supply of labour must be adequately skilled.

Figure 183: Comparison of Sectoral share in GDDP & Employment, Dhamtari



Source: Deloitte Analysis

The above figure also depicts the significant disparity in the structures of economy and employment in the district. Based on our analysis and primary interactions, the Agriculture sector is expected to be an important sector in terms of providing employment in the district and would account for the largest share of workforce over the decade. If the trends in employment continue, in 2021-22, the share of employment across the Agriculture sector is expected to decline to 72.5% as compared to 78.4% in 2012.

The Industry and Services sector employment share are estimated to increase 12.8% and 14.6% respectively, as indicated in the table above. This trend appears to be in line with the national trend as well where people are moving out of the Agriculture sector and moving into the Industry and Services sectors respectively.

Incremental Human Resource Demand

As per the methodology, the total incremental demand for manpower in Dhamtari from 2012 to 2022 is expected to be around 0.83 lakhs. Following table provides the break-up of the incremental demand for manpower in Dhamtari as per the skill levels required.

Table 163: Estimated Incremental Human Resource Demand (in '00s) by Skill Level in Dhamtari

	2012-17	2017-22	Total
Skilled	53	62	116
Semi-Skilled	109	124	232
Minimally Skilled	240	245	485
Total	402	431	833

Source: Deloitte Analysis

Some of the key trends observed on the demand side include

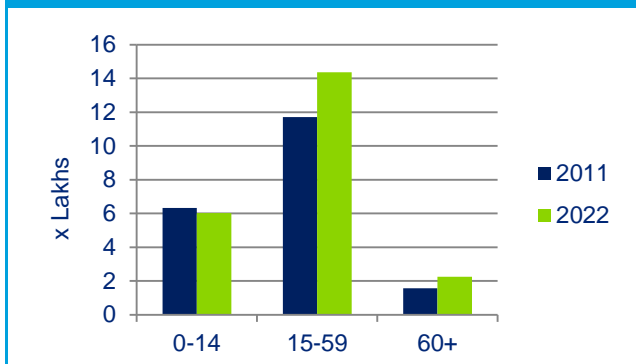
- ♦ *Agriculture will be the largest incremental demand generating sector (41.7%) with demand largely in the minimally skilled level.*
- ♦ *Within the Industries sector, the greatest incremental demand on employment is expected to come from the food processing (11.7%) followed by building and construction (6.4%).*
- ♦ *Within the Services Sector, trade (retail + wholesale) is expected to contribute about 8.3% of the total incremental demand for employment, followed by BFSI (3.4%).*
- ♦ *Analysis of formal and informal employment indicates that the incremental demand for manpower in formal sector would come mainly from BFSI, Building and Construction and Trade (retail + wholesale).*
- ♦ *Majority of demand for incremental manpower in the informal sector is projected to come from Agriculture, Food processing, Construction, Trade (retail + wholesale), and textiles and garments sectors.*

Table 164: Incremental Human Resource Demand (in '00s) by Skill Level in Dhamtari – Key Sectors

#	Sector	2012-17				2017-22			
		Skilled	Semi-skilled	Minimally Skilled	Total	Skilled	Semi-skilled	Minimally Skilled	Total
1	Agriculture	5	18	155	178	5	17	147	169
2	Food processing	5	13	27	45	5	16	32	53
3	Trade (Retail + Wholesale)	5	17	12	34	5	18	12	35
4	Building & construction	4	10	11	24	4	12	13	29
5	Textiles & garments	4	10	5	18	4	12	5	21
6	Large manufacturing	4	11	4	18	4	13	4	21
7	Banking/ Insurance/ Finance	5	5	1	11	9	8	1	17
8	Others	22	25	27	75	25	29	30	85
Overall Incremental Demand						833			
Source: Deloitte Analysis									

Incremental Human Resource Supply

Figure 184: Age wise distribution of population, Dhamtari 2011 and 2022 (projected)



Source: Census 2011 and Deloitte Analysis

The population of Dhamtari is expected to increase from 7.99 lakhs in 2011 to 9.53 lakhs in 2022. The adjacent figure provides the current and projected population across various age groups. As per the analysis, the number and proportion of children in 0-14 age group is projected to fall by about 0.02 lakh children, while the number of persons in the working age group is expected to increase by 1.23 lakh during the same period. This represents a potential demographic dividend for the district with a large increase in the employable population. On the other hand, it presents a huge challenge for the state to make available higher education and skill development facilities as well

as ensure productive employment opportunities for its population.

As per the methodology, the estimated total incremental manpower supply in Dhamtari over the decade (2012-2022) will be about 0.94 lakhs. Incremental manpower supply from various educational and vocational training institutes in the district can be further classified into skilled, semi-skilled and minimally skilled as per the educational qualifications.

Table 165: Estimated Incremental Human Resource Supply (in '00s) by Skill Level in Dhamtari

	2012-17	2017-22	Total
Skilled	89	90	179
Semi-Skilled	217	230	447
Minimally Skilled	172	142	314
Total	478	462	941

Source: Deloitte Analysis

Some of the key trends observed on the supply side include

- Proportion of incremental supply of semi-skilled manpower is 47.5%, compared to 33.4% of minimally skilled and 19% of skilled manpower (2012-22)
- Out of a total 590 colleges in the state, 20 (3.4%) are in the district of Dhamtari.
- Dhamtari has 7 out of 180 ITIs in the state and 132 VTPs accounting for a high supply of semi-skilled workforce.
- Impact of Migration is expected to be inward and accounts to around 2.2% of the supply. According to primary interactions, inward migration is both in minimally skilled and semi-skilled jobs in building & construction and manufacturing sectors
- The trend of migration is expected to be inward from other states and districts across all skill levels and would account to nearly 2.2% of the supply

Incremental Demand Supply Gap

During the period 2012-22, the incremental demand supply gap of the district (across all sectors mentioned above) is expected to be a surplus of 0.11 lakh people (refer table below). There is assessed

to be an excess demand across minimally-skilled segment with an excess supply expected in the semi-skilled and skilled segments.

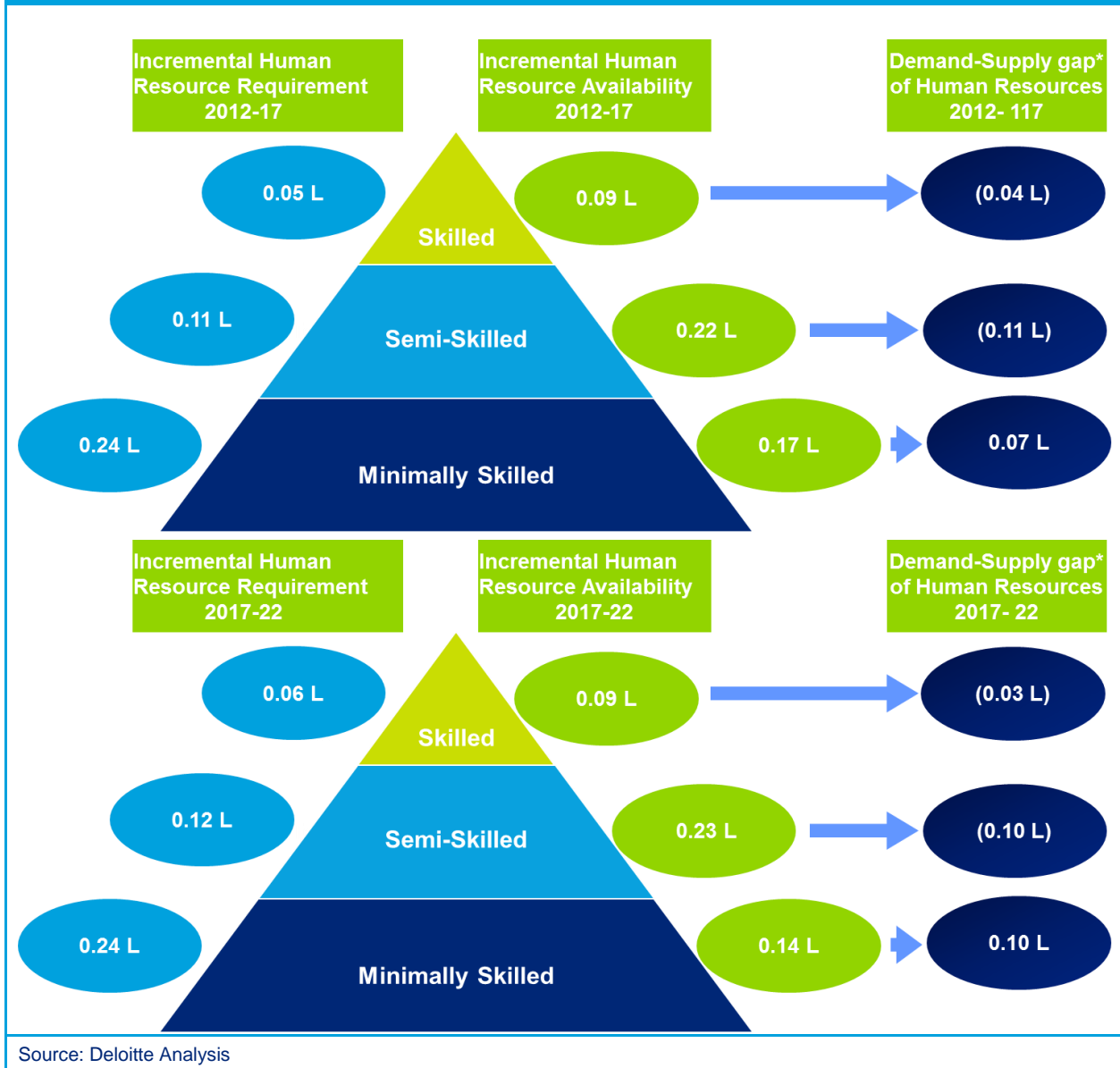
This means the rate of creation of employment in the district has to be augmented with suitable government initiatives in order to absorb the supply of workforce projected to enter the job market. Moreover, it also indicates a potential for skilling the semi-skilled and minimally skilled workforce and shift them to the more productive job roles assumed at the higher skill level respectively.

Table 166: Projected Demand Supply gap by skill levels (in '00s) in Dhamtari

#	District Skill Gap	2012-17				2017-22			
		Skilled	Semi-skilled	Min. Skilled	Total	Skilled	Semi-skilled	Min. Skilled	Total
1	Incremental HR Requirement (Demand)	53	109	240	402	62	124	245	431
2	Incremental HR Availability(Supply)	89	217	172	478	90	230	142	462
3	Demand-Supply Gap	(35)	(108)	68	(76)	(28)	(107)	103	(32)
Overall Demand-Supply Gap						(108)			
Source: Deloitte Analysis									

During the period 2012-22, the incremental manpower demand supply gap of the district (across all sectors mentioned above) is expected to be about 98,440 with the excess supply across all skill segments as shown in the adjoining figure.

Figure 185: Incremental Demand-Supply Gap (in lakhs) , Dhamtari



Some of the key trends observed on the demand-supply gap side include

- The composition of the human resource demand supply gap over the two different time periods i.e. 2012-17 and 2017-22 is anticipated to remain the same.
- The excess supply in the skilled segment is expected to continue over the decade and decrease in future. This is in line with growth of demand for skilled workers over the years. Due to the excess supply, skilled workers may need to seek job opportunities outside the district.

- The trend of excess supply is likely to continue in the semi-skilled segment across both the periods indicating greater conversion of the minimally skilled workforce into semi-skilled. Youth (especially males) in the district have indicated that they are open in seeking employment outside the district.
- Minimally skilled sector has the excess demand of labour over the years. However the skill gap is expected to increase over the period with more people moving from the minimally skilled to semi-skilled and skilled sections due to government initiatives.
- Primary interactions have raised **employability & deficit in specific jobs/ skills** as concerns despite high overall supply in skilled and semi-skilled levels. These have been given in the qualitative skill gaps section below.
- As indicated in the adjacent figures, the supply of minimally skilled human resources is estimated to reduce significantly owing to the greater focus of the state on improving school education, and providing an impetus in the skill development space.

Qualitative Skill Gaps

The qualitative skill gaps that were highlighted during our primary interactions with industry at Dhamtari are given in the table below. These will be further augmented with gaps identified for each priority sector in the final report.

Table 167: Qualitative Skill Gaps

Sector	Level	Skill Gap
Agriculture	Tractor operator and mechanics/ Electricians/ Mechanics for repair & maintenance of agricultural tools & implements	<ul style="list-style-type: none"> • Sufficient training to address tool & equipment failures like motor pump failure, gear damage, tyre puncture etc.
	Procurement Managers	<ul style="list-style-type: none"> • Ability to forecast demand and undertake procurement accordingly • Ability to locate and enter into relationships with farmers
Food Processing	Plant Associates and operators	<ul style="list-style-type: none"> • Limited basic engineering knowledge esp. on practical aspects, process knowledge e.g. distillation
	Material Handlers	<ul style="list-style-type: none"> • Limited awareness on quality, health and hygiene awareness • Limited basic computer skills including barcode reading
	Sales and marketing	<ul style="list-style-type: none"> • Limited Communication skills, ability and willingness to understand the manufacturing process
	Machine Operators	<ul style="list-style-type: none"> • Insufficient knowledge of machine operation and use • Ability to understand & follow instructions/ manuals • Limited ability to carry out basic repairs and troubleshooting
Trade (Retail + Wholesale)	Store/Department Manager	<ul style="list-style-type: none"> • Understanding of cross functional activities in the store esp. logistics, marketing and merchandising • People management skills • Vendor Management
	Billing Associate/ Accountants/ Computer operators	<ul style="list-style-type: none"> • Knowledge of transaction processing software and cash management • Knowledge of tally/accounting practice
	Sales/Customer Service personnel	<ul style="list-style-type: none"> • Product specific knowledge • Customer service and Inter personal skills
Building &	Project Managers/Engineers	<ul style="list-style-type: none"> • Knowledge of design and tools such as AutoCAD etc.

Sector	Level	Skill Gap
construction		<ul style="list-style-type: none"> ♦ Knowledge of green/eco-building design ♦ Project Management and People Management Skills ♦ Knowledge of appropriate safety practices
	Supervisors: plumbing, electrical, carpentry, masonry, drilling	<ul style="list-style-type: none"> ♦ Skills in civil- operations of ready mix m/c, earth movers, etc. ♦ Basic repair and maintenance ♦ Exposure to right methodology in construction specific skills like lining, leveling etc. ♦ Site safety concepts and procedures
	Workmen: plumbing, electrical works, carpentry, masonry, drilling	<ul style="list-style-type: none"> ♦ Basic operating skills related to relevant category ♦ Improved/ better quality in finishing ♦ Site safety concepts and procedures ♦ Ability to understand & follow instructions/ manuals

4.9.8 Recommendations

Future Growth Opportunities in Dhamtari

In the context of the current economic profile and proposed investments of the district, the demand for human resources at various skill levels has been analyzed. The observations have been augmented by primary interactions with industry & industry association representatives in the district and government officials at the state and district level. Based on our analysis and considering factors like high growth and employment potential, priority sector for the state government, investment trends, etc., the following sectors/industries have been identified with future growth opportunities for employment and subsequently, skill development in Dhamtari.

Table 168: Key Growth Sectors - Dhamtari

#	Priority Sectors	Growth opportunities in skills development and employment
1.	Agriculture	<ul style="list-style-type: none"> Agriculture currently provides employment to around 76% of the workers in the district. It is anticipated to be the residual & largest incremental employer in the district accounting for around 41.7% of the total incremental demand for manpower. Cultivation of paddy along with production of different varieties of pulses and vegetables is expected to employ a significant section of the workforce.
2.	Food processing	<ul style="list-style-type: none"> Food processing sector is expected to contribute to 11.7% of the incremental demand in the district. The micro and small enterprises in the district are the major contributors of growth in this sector. Dhamtari has 136 rice mills. As of 2010, the total investment in micro and small agro based industries was 38.85 crores The growth of employment (2012-22) in these sectors is rapid and incremental growth in demand is projected to be about 10,000 workers.
3.	Trade (Retail + Wholesale)	<ul style="list-style-type: none"> Trade (Wholesale + Retail) is one of the largest employers of the district, contributing to about 8.3% of the total employment in the district. Due to the booming manufacturing industry, specially steel and power as well as growth in building and construction activities, trade of raw materials result in increasing manpower demand in this sector.
4.	Building & construction	<ul style="list-style-type: none"> Construction is another major contributor in the district economy which is expected to grow at around 10.4% (2012-22). The total budgeted value for ongoing building and construction activities (building and roadwork) in Dhamtari for the year 2013-14 is allocated at Rs. 127 crores. Building and construction is projected to be one of the chief employers in the district with approximately 6.4% of the total incremental demand for employment estimated to come from the sector.
Source: Deloitte Analysis		

Considering the economic and skill landscape of Dhamtari, the table below indicates the priority areas of focus for key stakeholders involved. These observations have been mainly derived from the growth opportunities identified above and through primary interactions with industry and industry association representatives in the district along with inputs from the students, training institutes and government.

Table 169: Key Recommendations for Stakeholders – Dhamtari

Stakeholder	Priority Areas
NSDC	<p>NSDC can focus the efforts of its training partners in the key sectors identified in the district, viz.</p> <ul style="list-style-type: none"> Agriculture Manufacturing – Food Processing

	<ul style="list-style-type: none"> Trade (Wholesale + Retail) Building and Construction
Private training providers	<ul style="list-style-type: none"> There is a demand for more courses in Food Processing. Additionally, courses in Agriculture, Trade, Building and Construction can also be explored. Given the demand for food processing in the district, more VTPs should be encouraged to provide MES courses like Agro-products Maker (FOO104) and Cereals, Pulses & Oilseeds Processor (Milling & Baking, FOO208). Currently, very few VTPs are offering courses related to training in repairing and maintenance of agri-equipment. With increasing mechanization of agriculture, more VTPs should be encouraged to provide courses like Repair, Maintenance and Field Operation of Soil Farming Equipment (AGR106), Repair and Maintenance of Harvesting and Threshing Equipment (AGR109), Repair and Overhauling of Tractor (AGR214). There is a need to strengthen the current placement tie-ups/linkages with industry as well as employment exchange as observed in the youth survey where around 81% of the youth expressed their dissatisfaction with the placement/ jobs available post training. Institutes should assist students in placements by providing information on job opportunities from the beginning of the academic year. In order to promote self-employment in the district, entrepreneurship development courses in the high growth sectors identified may be introduced. Given the dependence of the majority of the population on Agriculture, greater number of courses like Entrepreneurship Development in Agri-business (AGR 140) may be introduced by the VTPs. There is a need to strengthen/improve the current technology and facilities/equipment in the institute as indicated by around 81% of the youth surveyed in the district.
Government	<ul style="list-style-type: none"> The Government should encourage more vocational training institutes on public private partnership mode in the district. The Directorate of Horticulture & Farm Forestry should arrange training and extension activities on areas like organic farming, soil conservation techniques; pest management etc. in the district owing to the dependence of the majority of the population on Agriculture. These training activities should be undertaken in tie-ups with the VTP's as well as NSDC partners operational in Dhamtari. Unavailability of information is one of the key concerns highlighted by youth in the district. For addressing the same, the regional DET offices and employment exchanges should collaborate together and arrange awareness campaigns in the district with focus on providing information on the VTP/Skill development institutes in the district along with the courses offered, registration process, course requirements, future job opportunities etc. It should be followed by at least one annual job fair in the district organized in collaboration with industry. Furthermore, the CSSDA can set up awareness camps and temporary training centers within villages to provide skill development trainings to the youth. Inaccessibility to the training institutes was also one of the major concerns highlighted by the rural youth in the district.
Industry	<ul style="list-style-type: none"> There is a need to collaborate with skill development institutes (SDI), ITIs and Employment Exchanges in the district to create structures/ linkages for placement and internship/ OJT opportunities. Industry players should provide inputs on the practical training component in the curriculum for ITIs and skill development institutes to improve the applied component of learning. Approximately 70% of the students surveyed in Dhamtari expressed their dissatisfaction with the alignment of the training/education currently provided by the educational institutes in the district with the potential job requirements of the employers. Industry players should participate in relevant SSCs to provide inputs on the qualification requirement, course component etc. especially in the high growth sectors identified in the district.

4.10 Durg

4.10.1 District Profile

Durg district, located in central part of Chhattisgarh is the industrial hub of the state. It is located in the southern portion of the fertile Chhattisgarh plain and is one of the most densely populated districts of Chhattisgarh. The district is part of Durg division. In 2012, the erstwhile Durg district was divided into the present day districts of Durg, Bemetara and Balod. It is surrounded by Bemetara on the north, Raipur on the east, Dhamtari on the south-east, Balod on the south and Rajnandgaon on the west. It extends over an area of 2238 sq. Km, which is 1.7% of the total state area. The district is divided into 2 divisions viz. Durg and Patan, 3 tehsils viz. Durg, Dhamdha and Patan, 388 villages, 267 gram panchayats, 9 Nagar Panchayats²²⁵. Durg is the district headquarters. The principal river of the district is Seonath River, which is a tributary of the Mahanadi River. Durg has a dry tropical type of climate.

Map 11: Durg District



Forests account for just 8.97% of the total geographical area of the district²²⁶. The forest cover of Durg is significantly lower than the state average & comprises of very dense forest (5.7%), moderately dense forest (67.9%) and open forest (26.3%)²²⁷. The district has a tropical climate.

Table 170: Durg District Profile

#	Indicator	Durg	Chhattisgarh	% Share
1.	Area, in sq.km.	2238.4 ²²⁸	135,190	1.7
2.	No. of sub-districts	3	149	2.0
3.	No. of inhabited villages	388	20126	1.9
4.	No. of households (lakhs)	3.61 ²²⁹	56.51	6.4
5.	Average Land holding size (Ha)	1.39*	1.17	-
6.	Forest area cover	9%*	41.2%	-
Source: Census 2011, Directorate of Economics and Statistics-Govt. of Chhattisgarh and State of Forest Report 2011-Forest survey of India				
*Data is for undivided Durg (including Bemetara and Balod)				

²²⁵ Census 2011

²²⁶ State of Forest Report 2011-Forest survey of India (Data is for undivided Durg which includes Bemetara and Balod)

²²⁷ ibid.

²²⁸ Durg.gov.in

²²⁹ Divided according to the population ratio of Durg, Bemetara, Balod

4.10.2 Demography

As per Census 2011, Durg has a total population of 17, 21,726 of which 35.9% of the people reside in the rural areas²³⁰. The decadal population growth in Durg during 2001-2011 was 18.98%²³¹, which is lower than the population growth of 17.2%²³² during the period 1991-2001. As of 2011, Durg ranks 3rd after Raipur and Bilaspur among all the districts of Chhattisgarh in terms of population. The population density and urban share of population is much higher than the state average. About 62.9% of the population is in the working age population class group.

Table 171: Demographic Indicators of Durg

Demography	Durg	Chhattisgarh
Population (2011)	17,21,726	2,55,40,196
Population 15-24 (2011)	3,62,429	49,89,339
Decadal Population Growth Rate (2001-11)	15.6%*	22.6%
Population density per sq. km (2011)	769 ²³³	189
Percentage of Urban Population (2011)	64.2%	23.2%
Percentage of SC population (2011)	13.7%*	12.8%
Percentage of ST population (2011)	11.9%*	30.6%
Average household size	4.77*	4.54
Sex Ratio (2011)	966	991
Working age population (15-59) as a percentage of total population, %	62.9%	62%
Per Capita Income (2009)	Rs. 60,979 ²³⁴	Rs.28,263
Source: Census of India 2011; Directorate of Economics and Statistics- Govt. of Chhattisgarh		
* Data is for undivided Durg (including Bemetara and Balod)		

Key Observations:

- ♦ Durg is the third most populous district of Chhattisgarh and its population density at 769 persons per sq. km is much higher than the state average of 189.
- ♦ The urban population in Durg is 64.2% of the total district's population.

²³⁰ Census 2011

²³¹ Data is for undivided Durg (including Bemetara and Balod)

²³² Ibid.

²³³ Deloitte Analysis

²³⁴ At 2004-05 constant prices, Data is for undivided Durg (including Bemetara and Balod)

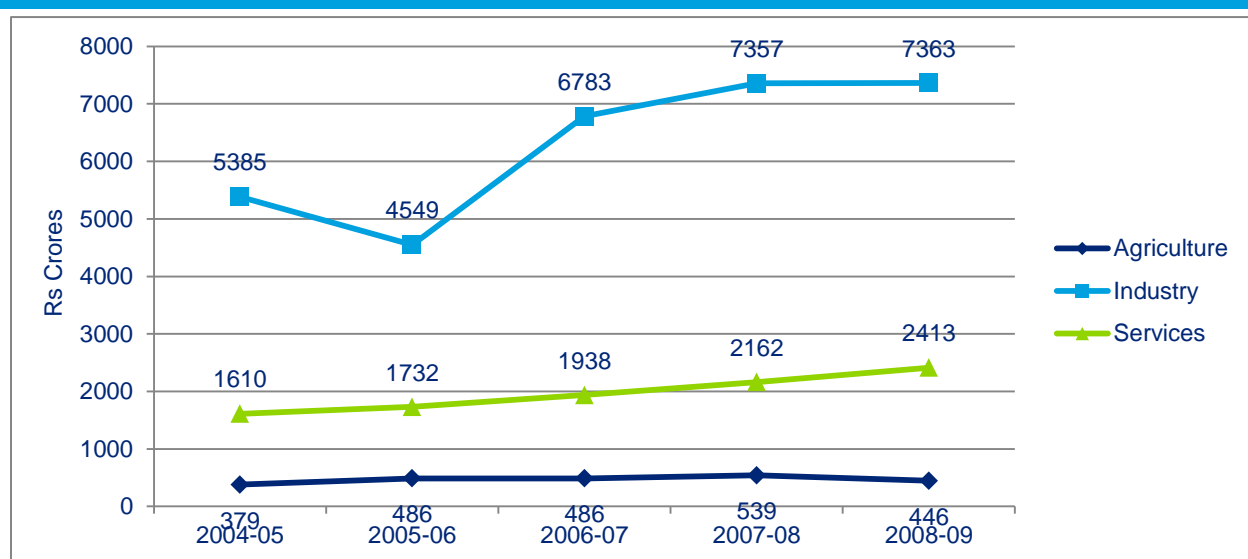
4.10.3 Economic Profile

Gross District Domestic Product (GDDP) of Durg in the period 2005-09 has grown at a CAGR of 8.5% which is less than the state growth rate of 9.6% in the corresponding period. At Rs 10221.07 crores, Durg had the highest Gross District Domestic Product in 2008-09 contributing 14.82% to the Gross State Domestic Product.

The economy of Durg district is pre-dominantly Industry sector based, **with Industry sector's share in GDDP being 72.0% in 2008-09**. This is followed by Services sector having 23.6% share in the GDDP and the Agriculture sector having a share of 4.4%. Both industry and Services sectors have grown consistently from 2006-09. The Services sector has shown the highest growth rate in the district over the period 2005-2009 with a CAGR of 10.6% followed by industry and Agriculture sectors which registered a CAGR of 8.1% and 4.2% respectively.

The sector-wise GDDP growth and distribution from 2005-09 is given in the figures below:

Figure 186: Sectoral Share of GDDP, 2004-05 to 2008-09, Durg



Source: Directorate of Economics and Statistics, Govt. of Chhattisgarh; Deloitte Analysis

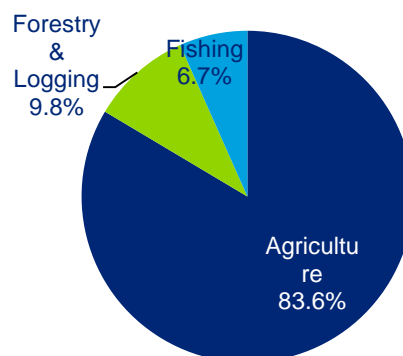
Agriculture sector

The contribution of Agriculture sector (agriculture, forestry & logging and fishing) to GDDP was 4.4% in 2008-09. Agriculture is the main contributor in the total economic output of the Agriculture sector contributing 83.6 % in the year 2008-09.

The chief reason behind the high productivity of crops in the district can be attributed to its location in the fertile Chhattisgarh plain. The Sheonath river, which is a tributary of the Mahanadi flows through the district. Besides, the tropical climate of Durg further aids in the crop production.

The main crop cultivated in the district is Paddy. Other major crops grown in the district include Gram, Peas and Soya bean. Vegetables and fruits like Mangoes, Bananas etc. are also grown in the district. Durg is a NFSM district for pulses.

Figure 187: Sub-sectoral break-up in Agriculture sector (2008-09), Durg



Source: Directorate of Economics and Statistics-Govt. of Chhattisgarh; Deloitte Analysis

Industry sector

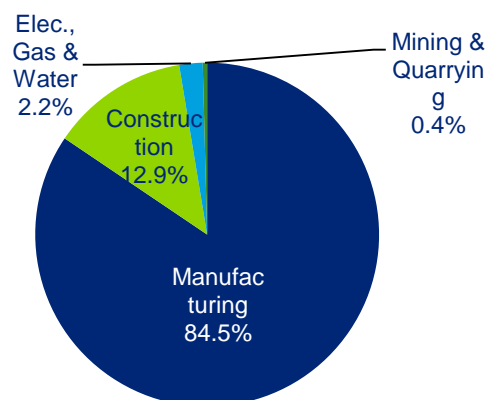
The Industry sector (mining & quarrying, manufacturing, construction and electricity, gas & water supply) contributed 72.0% to the GDDP in 2008-09. Manufacturing is the major contributor within the Industry sector, with a sectoral share of 84.5%.

The district is industrially developed. The presence of Bhilai Steel Plant has helped the growth of many micro and small ancillary units in the district. The Bhilai Steel Plant is India's first and one of the major producers of steel rails and heavy steel plates and one of the chief producers of structural steel. It is the largest and most profitable production facility of the Steel Authority of India Limited. Due to the influence of the Bhilai Steel Plant, the entire area has become a metallurgical hub comprising of mostly metallurgical industries. Bhilai also encompasses several cement industries set up by players such as ACC, JP etc.

The district is also a hub for power generation, which is an essential requirement for both construction and steel sector. Ecofren Power & Project Ltd, Chankhuri and Raipur Power & Steel PL, Borai are some of the power generation plants present in the district.

Durg has an industrial growth centre at Borai. The region has 44 industries with a fixed investment of more than Rs 136 crores and provides direct employment to about 1500 people. The Apparel Export Promotion Council has set up an Apparel Training & Designing Centre at Bhilai. Besides, a full-fledged modern testing lab is also being set up in Bhilai. Furthermore, an Engineering Park is proposed to be setup in the Bhilai Industrial Area over an area of about 120 ha of land. The park is expected to have

Figure 188: Sub-sectoral break-up in Industry sector (2008-09), Durg



Source: Directorate of Economics and Statistics-Govt. of Chhattisgarh; Deloitte Analysis

more than 150 units based on engineering products, machine tools, auto components, casting & forging etc.

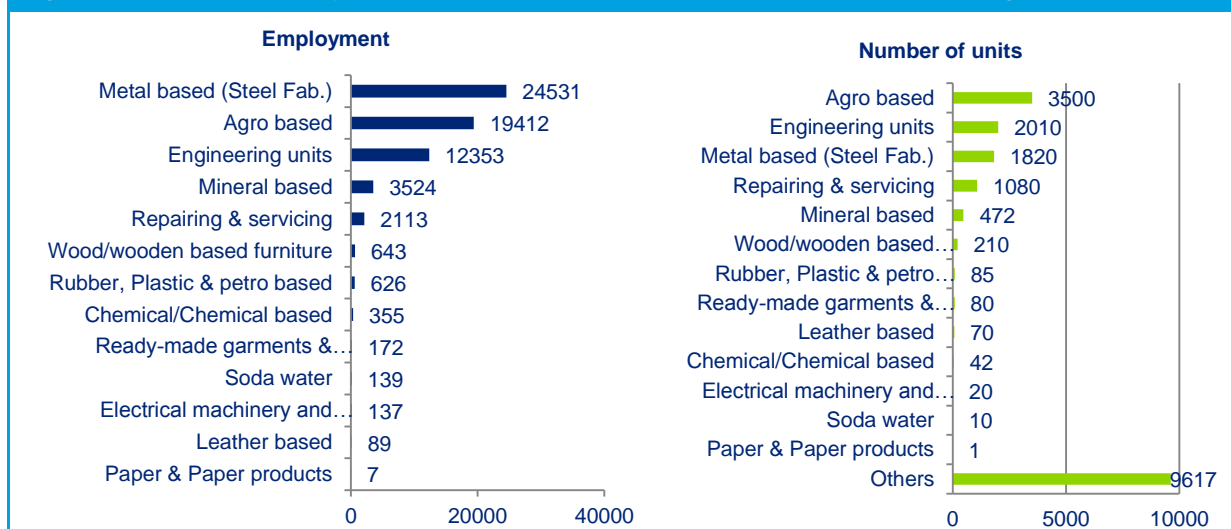
As per the list of MoU's shared by the State Investment Promotion Board (as on 31-03-2011), substantial investments have been proposed in the district for installation of sponge iron units, captive power plants, clinker and cement industries, coke oven plants etc. all of which are highly capital intensive industries. A total investment of Rs. 3189 crores is proposed for installation of sponge iron units while a total investment of Rs. 5104 crores is proposed in cement industry in the district. Furthermore, an additional investment of Rs. 4226 crores is proposed for coke oven plants. It indicates the significant potential for growth of the Industry sector in the district. The sops announced by the state government in FY 2014 budget (VAT on TMT steel bars reduced from 5% to 3%, entry tax on iron ore pellet, pig iron and steel scrap cut from 1% to 0.5% & entry tax on furnace oil purchased from outside the state reduced from 10% to 5%) would help in further strengthening the steel sector.

Durg also has a flourishing handloom & handicraft industry. The artisans of the region are famous for their Terracotta, Bamboo, Traditional jewellery & Embroidery work. There are 30 existing handicraft clusters in the district²³⁵.

Construction is also a major contributor within the Industry sector, with a sectoral share of about 12.9% in 2008-09. The total budgeted value for ongoing building and construction activities (building and roadwork) in Durg for the year 2013-14 estimated at Rs. 213 crores shows the current focus of the district on the sector²³⁶.

The key micro and small enterprises in the district in terms of employment and the number of units established are captured in the figure below. As evident from the figure, the key industries in the MSME sector mainly include agro based industries, engineering units and metal based fabrication units.

Figure 189: Estimated Employment and number of units in micro and small enterprises*, Durg



Source: Ministry of Micro, Small and Medium Enterprises, Government of India, 2011-12 and Deloitte Analysis

*Data is for undivided Durg

²³⁵ Chhattisgarh Handicrafts Sector Profile, Chhattisgarh Handicrafts Sector Meet-2012

²³⁶ Chhattisgarh Public Works Department

Mining & Quarrying contributed to 0.4% of the total sectoral output in 2008-09. The district has deposits of high quality limestone found at places like Nandini, Semariya, Khundani, Pithaura, Sahgaon, Deurjhaal, Ahiwara, Achcholi, Matragota, Ghotwani and Medesara. The limestone is utilized mainly for cement production and steel production.

Table 172: Mineral Revenue Receipt (Rs. Lakhs) in 2012-13, Durg

Major Minerals	Minor Minerals	Others	Total
1143.93	880.07	6.05	2030.05

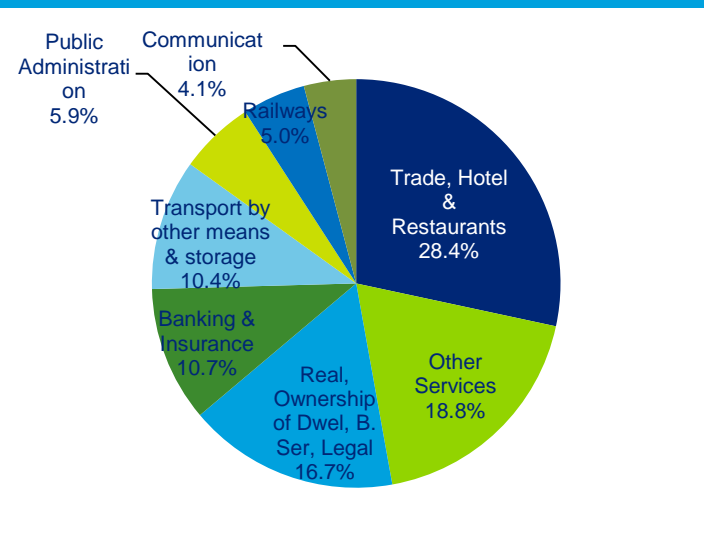
Source: Directorate of Geology & Mining, Chhattisgarh

Services sector

The Services sector contributes to about 23.6% of the GDDP in the year 2008-09. The key contributor to the sector is trade, hotel and restaurants contributing approximately 28.4% in the Services sector GDP. Shri Uwassaggaharam Parshwa Tirth, Nagpura and Maitri Bagh are popular tourist attractions in Durg. The district is well connected to the rest of the state by rail as well as road networks. It lies on the Mumbai-Howrah main line. Furthermore, NH 6, which runs through 6 states from Hajira in Gujarat to Kolkata in West Bengal, passes through the district.

With a CAGR of about 16.9% and 19.8% over the period from 2004-2009, Communication and Banking & Insurance sectors respectively were among of the fastest growing sectors in the district, though their absolute sizes are small.

Figure 190: Percentage contribution to the Services sector (2008-09), Durg



Source: Directorate of Economics and Statistics- Govt. of Chhattisgarh, Deloitte Analysis

Key Observations:

- The economy of Durg district is pre-dominantly Industry sector based, **with Industry sector's share in GDDP being 72.0% in 2008-09**. This is followed by Services sector having 23.6% share in the GDDP and the Agriculture sector having a share of 4.4%.
- Both industry and Services sectors have grown consistently from 2006-09. The Services sector has shown the highest growth rate in the district over the period 2005-2009 with a CAGR of 10.6% followed by industry and Agriculture sectors which registered a CAGR of 8.1% and 4.2% respectively.
- Major industries in the manufacturing sector in the district include metal based fabrication units. The Bhilai Steel Plant in the district is the largest and most profitable production facility of the Steel Authority of India Limited.

4.10.4 Employment Profile

Durg was the 3rd most populous district of Chhattisgarh in the year 2011, accounting for nearly 6.74% of the state's population.

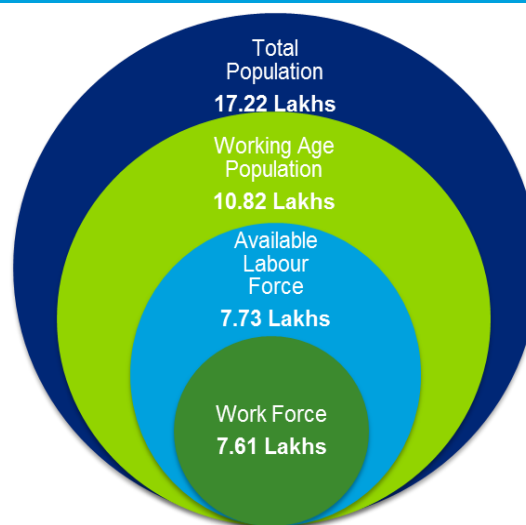
The adjacent figure summarizes the estimated workforce in Durg in the context of the total population of the district.

Out of the total population of 17.22 Lakhs, the working age population (between 15-59 age group) constitutes nearly 62.9%.

Based on the labor force participation rate and the worker participation rate estimates for the state, the available labour force is estimated to be 7.73 lakhs, and the workforce is estimated at 7.61 lakhs or nearly 70% of the working age population.

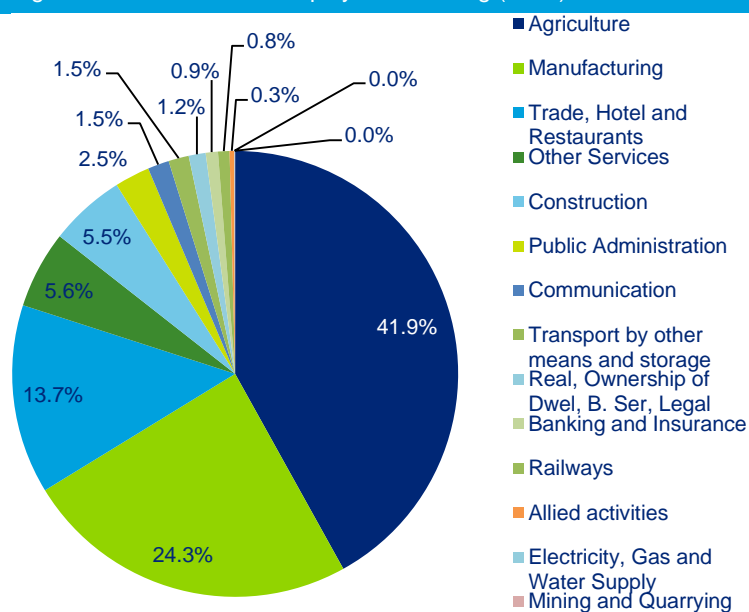
About 42.3% of the workforce in the district is engaged in Agriculture sector in 2011, even though the sector contributes merely 8% to the GDDP. The Industry sector which contributed about 53.3% of the GDDP in the year 2011 is the second highest employer in the district employing around

Figure 191: Total Workforce in Durg (2011)



Source: Census 2011 and Deloitte Analysis

Figure 192: Sector wise employment in Durg (2011)



Source: Census 2011 and Deloitte Analysis

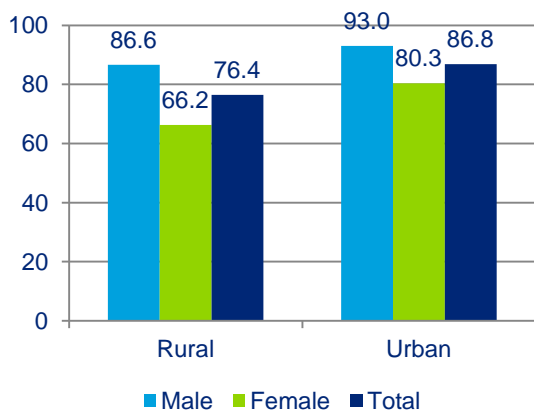
29.9% of the work force in the district. The Services sector employed around 27.8% of the workforce in the district.

The sector-wise employment of Durg for the year 2011 has been shown in the adjoining figure. Agriculture contributed to 41.9% of the total employment in the district. Manufacturing (24.3%) was the second highest employer in the district followed by trade, hotels and restaurants (13.7%), other services (5.6%) and construction (5.5%). The top five sectors in the district in terms of employment account for around 91% of the total employment of the available workforce in Durg in 2011.

4.10.5 Education Infrastructure

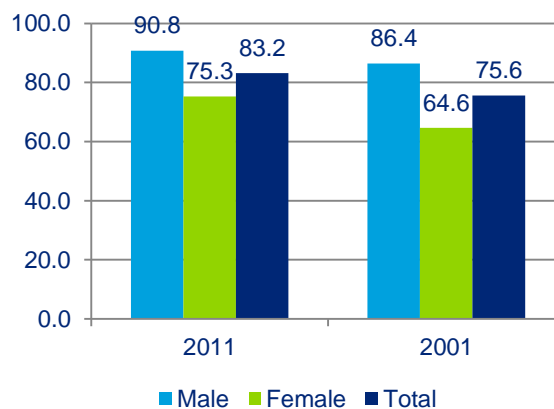
The literacy rate in Durg has improved from 75.6%²³⁷ in 2001 to 83.2% (Deloitte Analysis) in 2011. It is significantly higher compared to the state's literacy rate of 71% in 2011 as well as the all-India literacy rate of 73%. In 2011, male and female literacy rates stood at 90.8% and 75.3% respectively²³⁸. However, both figures show an improvement compared to the 2001²³⁹ figures of 86.4% and 64.6% respectively.

Figure 193: Literacy rate 2011 (by residence), Durg



Source: Census of India 2011, Deloitte Analysis

Figure 194: Literacy rate (by Gender), Durg



Source: Census of India-2001 and 2011, Deloitte Analysis

School Education

Durg has a total of 802 primary schools, 574 upper primary schools, 72 secondary schools and 272 higher secondary schools. Net enrolment ratio (NER) in the district at the upper primary level (66.3%) is comparable to the state NER of 67.8%.

Table 173: Status of school education infrastructure in Durg, 2013

#	Educational Statistics	Units in Durg	Units in Chhattisgarh	% Share of District in State
1	Primary School	802	35588	2.3%
2	Upper Primary School	574	16442	3.5%
3	Secondary School	72	2632	2.7%
4	Higher Secondary School	272	3548	7.7%
5	NER (Primary) (2010-11)	86.8% ²⁴⁰	98.0% ²⁴¹	-
6	NER (Upper Primary) (2010-11)	66.3% ²⁴²	67.8%	-

Source: DISE 2012-13

²³⁷ Data is for undivided Durg (including Bemetara and Balod)

²³⁸ Deloitte Analysis

²³⁹ Data is for undivided Durg (including Bemetara and Balod)

²⁴⁰ Ibid.

²⁴¹ Data is for 2008-09

²⁴² Data is for undivided Durg (including Bemetara and Balod)

Vocational Education

For vocational training, Durg has a total of **19 Industrial Training Institutes in the district**, out of which 6 are Government Industrial Training Institutes and 13 are Private Industrial Training Institutes. Out of the 19 ITI's in the district, 2 are women ITI's- one in the town of Durg and the other in Bhilai. The total capacity of the ITI's in the district is 4404. The capacity of the government ITI's is 2300 while that of the private ITI's is 2104. Electrician and Fitter courses have the maximum units affiliated amongst the ITIs present in the district.

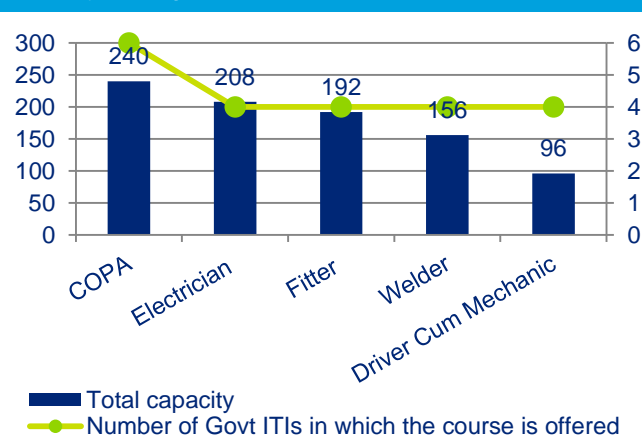
The total numbers of courses available in ITIs along with their capacity are listed in the table below:

Table 174: ITIs in Durg and their capacity

Name of ITI	Number of courses offered	Total Units affiliated	Total Capacity
Government Industrial Training Institute, Durg	14	32	512
Government Industrial Training Institute for Women, Durg	5	8	140
Government Industrial Training Institute, Bhilai	25	67	1016
Government Industrial Training Institute for Women, Bhilai	9	21	344
Government Industrial Training Institute, Dhamdha	5	9	144
Government Industrial Training Institute, Patan	5	9	144
Agrasen Industrial Training Centre, Kohka, Bhilai	3	18	288
Arunodaya Industrial Training Centre	2	8	128
Puri Technical Training Institute, Kohka, Bhilai	4	18	296
Happy Industrial Training Institute, Bhilai	4	16	248
R.P. Industrial Training Centre, Risali, Bhilai	3	14	232
Naveen Adarsh Industrial Training Centre, Dhanora	2	11	176
Mansa Industrial Training Centre, Bhilai	2	8	128
Apollo Industrial Training Centre, Anjora	1	2	32
Agarsen Industrial Training Institute, Dognia, Gunderdehi	1	8	128
Agrasen Industrial Training Centre, Dhanora	3	16	264
Unnati Industrial Training Centre, Dhamdha	1	4	64
Puri Industrial Training Centre, Bhilai	1	4	80
Sandipani Academy Private ITI, Durg	1	2	40
Total	38*	275	4404
Source: Department of Higher and Technical Education- Chhattisgarh; Deloitte Analysis			
*Total number of different courses offered by ITI's in Durg			

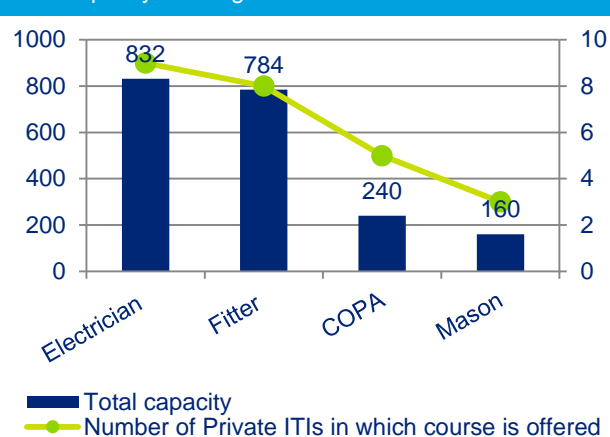
The major courses offered in the ITIs and their capacity in Durg is given in the figure below:

Figure 195: Major courses offered in Govt. ITIs and their capacity in Durg



Source: Department of Higher and Technical Education, Chhattisgarh; Deloitte Analysis

Figure 196: Major courses offered in Private ITIs and their capacity in Durg



Source: Department of Higher and Technical Education, Chhattisgarh; Deloitte Analysis

According to Chhattisgarh State Skill Development Mission Website, as of 12th March, 2014, Durg has 130 **Vocational Training Providers (VTPs)** under which there are 5106 registered beneficiaries. The following table highlights the courses offered by vocational training institutes in the district which currently meets the requirements of around 18 sectors.

Table 175: Courses offered in vocational education, Durg

Sector	ITI trades and Units affiliated	Courses Offered by VTPs
Auto and auto components Electronics and IT hardware Chemicals and pharmaceuticals	Draughtsman(Mechanical)(6), Electrician(65), Electronics Mechanic(2), Fabrication (12), Fitter(61), Process Plant Maintenance(12), Mechanic and machinist (16), Turner(4), Welder(15),	Electrical, Electronics, Fabrication, Automobile, Automotive Repairs, Production and manufacturing
IT and ITES Tourism, hospitality and travel Organized retail Media and entertainment Banking, financial services and insurance	Computer Operator and Programming Assistant(24), Information Technology (12), Stenography(9), Secretarial practice(1), Driver cum mechanic (6)	ICT, Soft skill, Banking & Accounting, Business & Commerce, Insurance, Hospitality, Fashion design, Retail
Textiles and clothing Leather and leather goods Food processing	Cutting and Tailoring(1), Dress Making(1), Preservation of fruit & Vegetables(1), Rice Mill Operator(1)	Textile sector, Garment making, Sericulture, Food processing and preservation
Building, construction and real estate Transportation, logistics, warehousing and packaging Construction material and building hardware Furniture and furnishing	Carpenter(1), Draughtsman(Civil)(3), Mason(Building constructor) (10), Moulder(1)	Construction, Carpenter

Healthcare Services Education and skill development Un organized sector (particular reference to agriculture, security, plumbing, domestic worker, foundry, etc.)	Hospital housekeeping (2), Physiotherapy Technician (2), Library & Information Science (1), Interior Decoration and designing (2), Mechanic (Refrigeration, air conditioning, radio, television etc.) (2), Wireman(2),	Medical & Nursing, Refrigeration & Air conditioning, Wood Work, Fisheries & Allied Sector, Security
Source: CSSDA Website		

The following table highlights the NSDC partners present in Durg as of January 2014 and the courses offered by them.

Table 176: NSDC partners present in Durg

Name of Partner	Sectors in which course is offered	Courses offered
AISECT	IT/Software	<ul style="list-style-type: none"> Diploma in Computer Applications (DCA) Post Graduate Diploma in Computer Applications (PGDCA) Diploma in Computer Programming and Applications (DCPA) Certificate in Word Processing / Typewriting (Hindi/English) (CWP) Certificate in Data Entry Operator (CDEO)
	ITES-BPO	<ul style="list-style-type: none"> Diploma in Computer Applications (DCA) Post Graduate Diploma in Computer Applications (PGDCA) Diploma in Computer Programming and Applications (DCPA)
Rooman Technologies	IT/Software	<ul style="list-style-type: none"> MCSA MCSE Network Admin System Admin CCNA Diploma in Hardware RHCE MCITP
Source: NSDC		

Higher Education

Durg can be considered as one of the **key districts in Chhattisgarh in terms of provision of higher education**. Out of a total 590 colleges in the state, 108 (18.3%) are in Durg which is much higher in comparison to the share of district's population in state (6.7%). However, around **38% of the colleges in the district offer only general degree courses** (Arts, Science and Commerce). Following 3 universities are present in the district out of which 2 are state universities and 1 is private university:

- Chhattisgarh Kamdhenu Viswavidyalaya (State)
- Chhattisgarh Swami Vivekananda Technical University (State)
- ICFAI University (Private)

In terms of presence of technical colleges, Durg has a total of 16 technical colleges, which is second highest in the state after Raipur. There are two dental colleges in Durg, viz. Maitri College of Dentistry and Research Centre, Anjora and Rungta College of Dental Science and Research, Kohka, Bhilai. Durg

also has 2 polytechnic institutes one of which is a Govt. institute while the other is a private institute. The break-up of the number and capacity of higher education institutes in Durg is provided below.

Table 177: Number and capacity of Higher Education infrastructure in Durg

#	Colleges	Number	Estimated Capacity*
1	Arts, Science and Commerce	41	-
2	Teacher Education	21	-
3	Technical	16	7920
4	Nursing	15	1063
5	Agriculture	5	302
6	Management	3	-
7	Dental	2	218
8	Other medical	2	110
9	Law	2	-
10	Medical**	1	89
	TOTAL	108	-
*Source: University/College websites			
** Includes BPT colleges			

Key Observations:

- ♦ Durg can be considered as one of the major education hubs in the state with the share of the district in the higher education space of the state at an impressive 18.3%.
- ♦ There are 19 ITIs and 130 VTPs active in the district.

4.10.6 Youth Aspirations

In the process of capturing the aspirations of the youth population in Durg, focused group discussions were held with youth from educational institutions as well as residing in rural areas to understand their concerns, areas of interest and future dreams and goals. The youth surveys in Durg were conducted at the P.G. College of Nursing, Bhilai; Ashrafia Institute of Education; Government Industrial Training Institute for Women, Khursipar and Government Industrial Training Institute, Bhilai. The FGD was conducted at Anjora, Durg. 38% of the respondents were in the age group 15-20 while 52% of them were between 21-25 years. Remaining 10% of the respondents were 26 years and above. In terms of gender representation, around 79% of the participants were females and 21% were males. The educational qualification of about 46% of the participants was high-school level or below. Around 45% of them were graduate and above with the remaining participants being diploma/certificate holder.

The key observations about aspirations of the youth of the district are highlighted below:

Table 178: Youth Aspiration – Key Responses - Durg

Parameters	Responses
Job Preference	Most of the youth preferred Government jobs over private jobs due to the job security offered in a Government job. However, women are more interested in self-employment activities like tailoring and sewing.
Factors influencing selection of training institution	Institutions are selected on the basis of quality of the educational institutes and future placement/job opportunities post education/training.
Preferred Course	<ul style="list-style-type: none"> • Training for job readiness appears to be most popular among the youth in the district. • Courses in spoken English, basic communication skills, personality development, soft skills etc. are very popular amongst the youth. • Boys also expressed interest in trades of Electrician, Fitter and Welder. • Girls indicated their preference for self-employment activities related training like tailoring and sewing, beautician etc.
Migrating for job	<ul style="list-style-type: none"> • The rural youth are forced to migrate to cities like the district headquarter of Durg or developing cities like Raipur, Bilaspur etc. owing to low job prospects within the vicinity.
Areas of concern/ aspirations- Infrastructure	<p>Following views were expressed regarding infrastructure in educational institutions:</p> <ul style="list-style-type: none"> • Youth reported poor quality of infrastructure in the institutes in terms of drinking water facility, proper toilets etc. • The inadequacy of training equipment and computer & internet facility in institutes was also highlighted.
Areas of concern/ aspirations-Course Curriculum	<ul style="list-style-type: none"> • Youth feel that curriculum should also be focused on improving upon the soft skills and personality of the trainees besides technical know-how, and it is critical for getting a good job. • Youth expect tie-ups with industry for apprenticeship/ internship to improve job prospects.
Other concern	<ul style="list-style-type: none"> • It was also learnt that youth are not aware about the newly introduced Govt. initiatives on skill development such as VTPs (MES/ SDI scheme) and NSDC training partners.
Suggestions given by youth	<ul style="list-style-type: none"> • The youth expect Govt. to take up initiatives to improve college infrastructure. • Youth expressed that Govt. should take suitable measures to improve upon the awareness of the various schemes/initiatives being introduced. • There should be more courses, practical classes, resourceful, efficient and regular teachers available in the institutes. • There should be better equipment and latest technologies for proper training.

A sample survey was conducted with youth at gram panchayat level & those coming out from various educational institutions (Government & private) to understand & capture their aspirations. The findings are presented below:

Job preference by youth

The majority of the youth surveyed (35%) **prefer to get a job outside India** as is shown in the adjacent figure. Approximately 33% of them preferred job within their district. The survey highlights the fact that around **51% of the youth surveyed prefer to get a job within Chhattisgarh** if suitable employment opportunities are available in the state.

Parameter for Institute Selection

A majority of the students surveyed (71%) at the gram panchayat level quoted the **quality of education offered by the educational institution** as their prime parameter while selection of an institute for higher education. Around 29% of the students look at the placement opportunities offered by the institute for making a choice.

Youth Perception Mapping

Youth perception mapping was undertaken to understand their level of satisfaction with either their current institute or their experience and feedback on the available educational infrastructure. The results are summarized below:

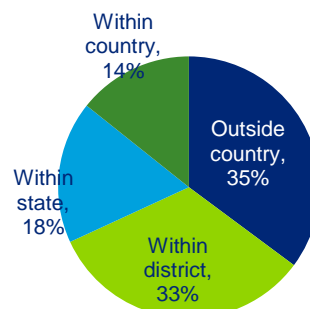
Low satisfaction with placement / jobs available post training:

Around 47% of the students surveyed expressed their dissatisfaction with the placement opportunity available in the institute or jobs available post training. Approximately **37% of the respondents feel the job opportunities available to them post training are satisfactory**. Majority of the youth shared their expectation of being provided with a placement opportunity by the institute or facilitate a tie-up with nearby companies to give them an experience of hands on training.

Non-availability of latest technologies and equipment for training: 46% of the students surveyed expressed their dissatisfaction with the availability of latest technology & equipment for training in the institute while around 32% of them shared their satisfaction with the same. They felt the lack of equipment as a major constraint for their knowledge enhancement and appropriate level of skill development. They demanded that the institutes to be adequately equipped and upgraded with latest technology.

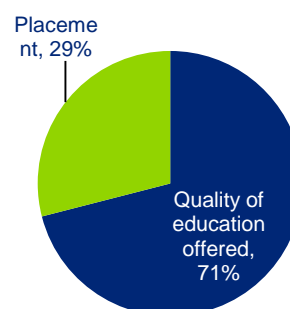
Dissatisfaction with capability of institute's faculty in teaching: Around 54% of the students (especially the students from Government ITI's) feel the **quality of teaching by faculty** is not satisfactory and needs significant improvement. They also highlighted their concern regarding shortage of faculty in the institutes as per the course requirement.

Figure 197: Job Preference by Youth



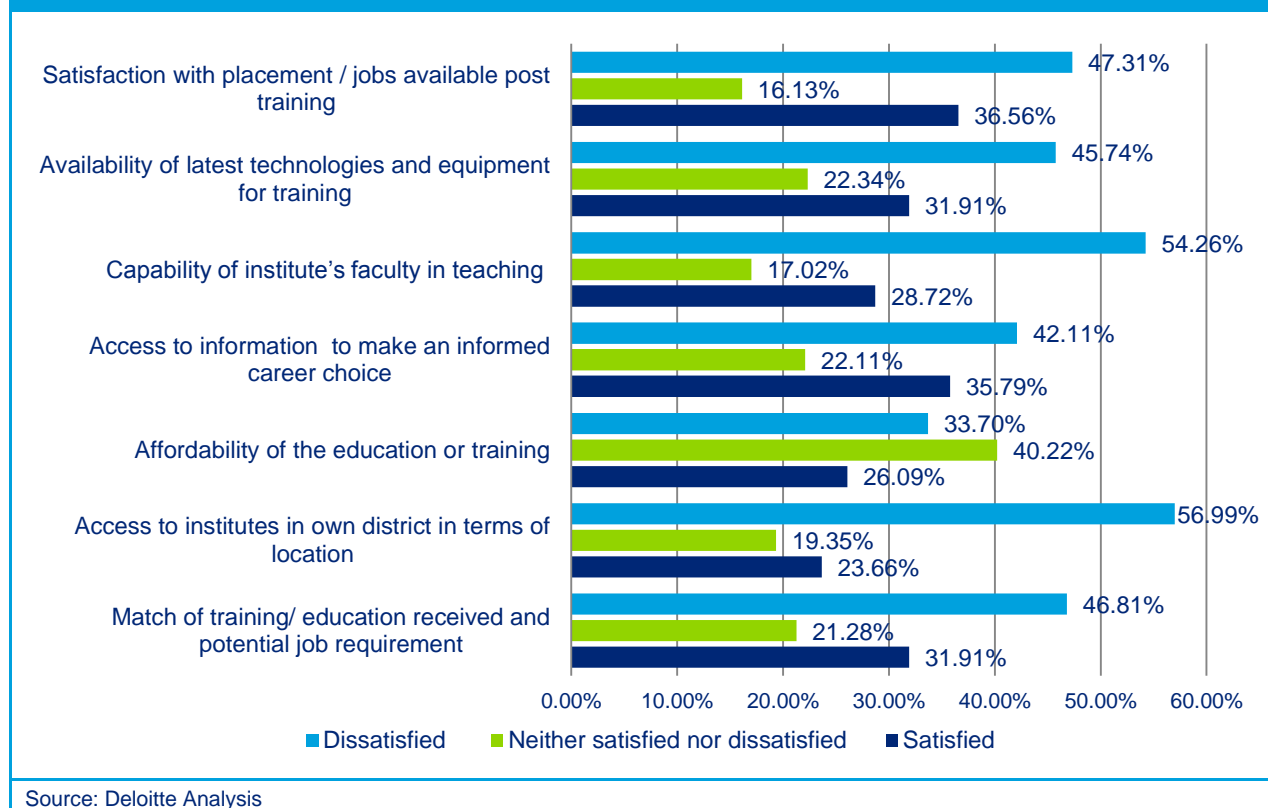
Source: Deloitte Analysis

Figure 198: Parameter for Choice of Institute



Source: Deloitte Analysis

Figure 199: Youth Perception Mapping, Durg



Need for better access to information to make an informed career choice: The majority of the students surveyed expressed their dissatisfaction with the access to information in the district to make an informed career choice. While 36% of the students vouch for accessibility to information to make an informed career choice, around 42% of them felt that they did not get proper accessibility to information to make an informed career choice. The concern was raised more by the rural youth who reported the **absence of appropriate guidance/counseling facility in their vicinity**. This highlights the significance of arranging career counseling for the potential students either at the school level or at the respective vocational institutes.

Affordability not as high a concern as quality and value for money in education or training: Majority of the students surveyed (around 40%) were neutral regarding the affordability of the courses offered by educational institutes in the district indicating thus that affordability of the programs offered is not a high concern amongst the youth. However, they raised their concern regarding the quality of training programme offered.

Access to institutes is an issue in rural areas: Around 57% students surveyed feel the educational institutes to be inaccessible in terms of location and majority of them were rural youth. 24% of the students surveyed expressed their satisfaction with the accessibility of the educational institutes in the district in terms of location. They found the institute to be located in an accessible area and safe in terms of the duration of classes. The rural youth voiced the government to support them by arranging suitable transport facility.

Dissatisfaction with the alignment of training/education received with job requirements: Approximately 47% of the students surveyed feel that the training/education currently provided by the educational institutes in the district is not in alignment with the potential job requirements of the

employers. Thus, the survey brings out the need to make appropriate changes in the course curriculum to make the same more application based and industry relevant.

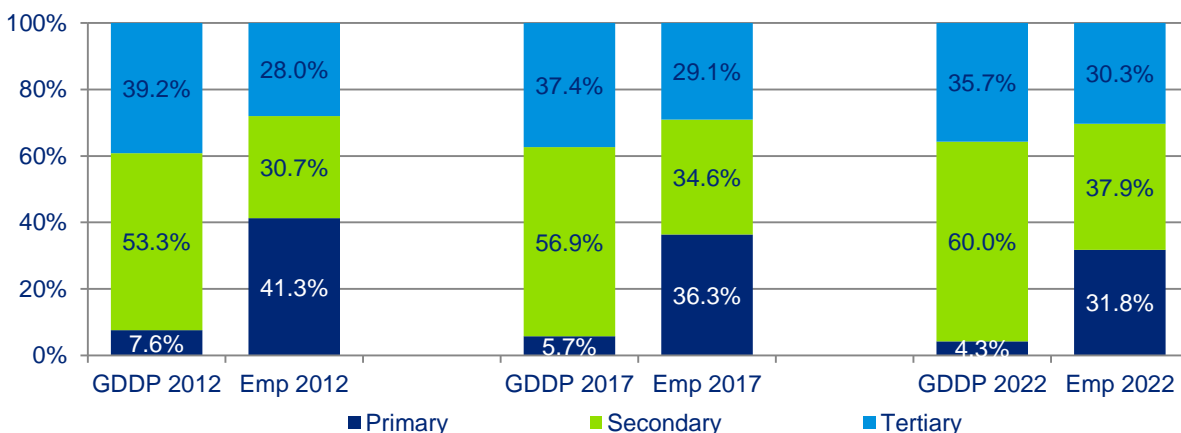
Key Observations:

- ♦ Most of the youth preferred Government jobs over private jobs due to the job security offered in a Government job. However, women are more interested in self-employment activities like tailoring and sewing.
- ♦ Students select the institutes on the basis of the quality of educational institutes and future placement/job opportunities post education/training.
- ♦ Courses in spoken English, basic communication skills, personality development, soft skills etc. are very popular amongst the youth.
- ♦ The inadequacy of training equipment and computer & internet facility in institutes was also highlighted by the youth.
- ♦ Need for creating linkages for placement and apprenticeship/internship was strongly expressed.
- ♦ Youth are not aware about the different Government initiatives on skill development. As per them, the Govt. should take suitable measures to improve upon the awareness of the various schemes/initiatives being introduced.
- ♦ Youth expressed the need for more courses, practical classes, efficient and regular teachers available in the institutes.

4.10.7 Skill Gap Assessment

The working age population (15-59) constitutes 62.9% of the total district population in 2011 and is expected to increase to 65.8% by 2022.

Figure 200: Comparison of Sectoral share in GDDP & Employment, Durg



Source: Deloitte Analysis

Based on our analysis and primary interactions, the Industry sector is expected to play a significant role and will be an important sector in terms of providing employment in the district by 2022. The relative contribution of Industry sector to the economic output is expected to increase over the decade and in terms of employment as well it is anticipated to be the major employer in the district by 2022. If the trends in employment continue, in 2021-22, the share of employment across the Industry sector is expected to increase to 37.9% as compared to 30.7% in 2012. The rate of increase of employment share of the Industry sector is comparable to the rate of increase of its economic contribution.

The Agriculture sector despite having the lowest contribution in the district economic profile accounts for the largest share of workforce in 2012. However, its relative contribution to the employment profile of Durg is expected to diminish over the decade. The Agriculture sector employment share is estimated to decrease to 31.8% while the Services sector employment share is estimated to increase to 30.3%, as indicated in the table above. This trend appears to be in line with the national trend as well where people are moving out of the Agriculture sector and moving into the industry and Services sectors respectively.

Incremental Human Resource Demand

As per the methodology, the total incremental demand for manpower in Durg by 2022 is expected to be around 2.89 lakhs. Following table provides the break-up of the incremental demand for manpower in Durg as per the skill levels required.

Table 179: Estimated Incremental Human Resource Demand ('00) by Skill Level in Durg

	2012-17	2017-22	Total
Skilled	275	357	632
Semi-Skilled	575	706	1,282
Minimally Skilled	459	522	981
Total	1,310	1,585	2,895

Source: Deloitte Analysis

Some of the key trends observed on the demand side include

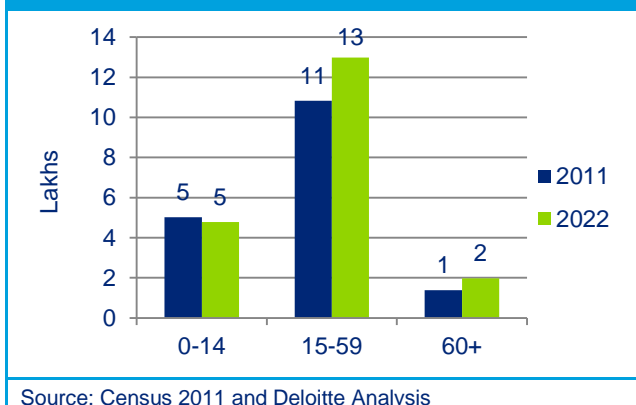
- ♦ *Manufacturing (primarily mineral/ metal based) will be the largest incremental demand generating sector (31.6%) in the district with demand largely for the semi-skilled workers (60%).*
- ♦ *Within the Industry sector, Building and Construction (14.7%) is another key sector in terms of the incremental demand for manpower.*
- ♦ *In the Services sector, the sectors expected to employ maximum incremental demand for workforce include trade (10.0%), BFSI (8.8%) and Communication (5.2%).*
- ♦ *Agriculture sector is expected to employ around 9.1% of the total demand for incremental workforce in the district with demand largely in the minimally skilled workers (87%).*
- ♦ *Analysis of formal and informal employment indicates that the incremental demand for manpower in formal sector would come mainly from Manufacturing (primarily mineral/metal based units), BFSI, Building & Construction, Trade (Retail + Wholesale) and Public Administration*
- ♦ *Majority of demand for incremental manpower in the informal sector is projected to come from Manufacturing (primarily mineral/metal based units), Agriculture, Building & Construction and Trade (Retail + Wholesale).*

Table 180: Projected Incremental Human Resource Demand ('00) by Skill Level in Durg - Key Sectors

#	Key Sectors	2012-17				2017-22			
		Skilled	Semi-skilled	Minimally Skilled	Total	Skilled	Semi-skilled	Minimally Skilled	Total
1	Manufacturing (mineral/metal based)	84	253	84	421	99	297	99	495
2	Building and Construction	28	74	83	184	36	96	108	240
3	Trade (Wholesale + Retail)	21	71	50	142	22	75	52	149
4	Agriculture	4	14	118	136	4	13	112	128
5	BFSI	43	39	4	86	84	76	8	168
6	Others	95	126	120	342	111	150	142	404
	Total	275	575	459	1310	357	706	522	1585
	Overall Incremental Demand				2895				
Source: Deloitte Analysis									

Incremental Human Resource Supply

Figure 201: Age wise distribution of population, Durg 2011 and 2022 (projected)



The population of Durg is expected to increase from 17.2 lakhs in 2011 to 19.7 lakhs in 2022. The adjacent figure provides the current as well as projected population across various age groups in the district. As per the analysis, the number and proportion of children in the 0-14 age group is projected to fall by about 23,000 children, amounting to a fall of around 5% between 2011 and 2022. The number of persons in the working age group is expected to increase by around 2 lakhs during the same period registering an increase of 20%.

This represents a potential demographic dividend for the district with a large increase in the

employable population. On the other hand, it presents a huge challenge for the state to make available higher education and skill development facilities as well as ensure productive employment opportunities for working age population.

As per the methodology, the estimated incremental manpower supply over a period of 10 years (2012-22) will be around 2.30 lakh. Incremental manpower supply can be further classified into skilled, semi-skilled and minimally skilled as per the education qualifications and estimated output of educational and vocational training institutes in the district.

Table 181: Estimated Incremental Human Resource Supply ('00) by Skill Level in Durg

	2012-17	2017-22	Total (2012-22)
Skilled	479	485	964
Semi-Skilled	328	332	661
Minimally Skilled	336	335	671
Total	1,144	1,152	2,295

Source: Deloitte Analysis

Some of the key trends observed on the supply side include

- ♦ Proportion of incremental supply of skilled manpower in the district is 42%, compared to 29% of minimally skilled and 29% of semi-skilled workforce (2012-22).
- ♦ Durg has significant share of universities (3/19) and higher educational institutes (18.3%) in the state which contributes to higher supply of skilled manpower in the district.
- ♦ Durg has 19 out of 180 ITIs in the state having 10.6% of the total capacity of all ITIs in the state, and also has growing presence of VTPs who are contributing to the increased output of semi-skilled manpower in the district. This is also in-line with the current focus of government in improving the skill development space of the state.
- ♦ Impact of Migration is expected to be inward from other states & districts primarily across minimally skilled category & accounts for around 2.1% of the total supply of workforce in Durg.

Incremental Demand Supply Gap

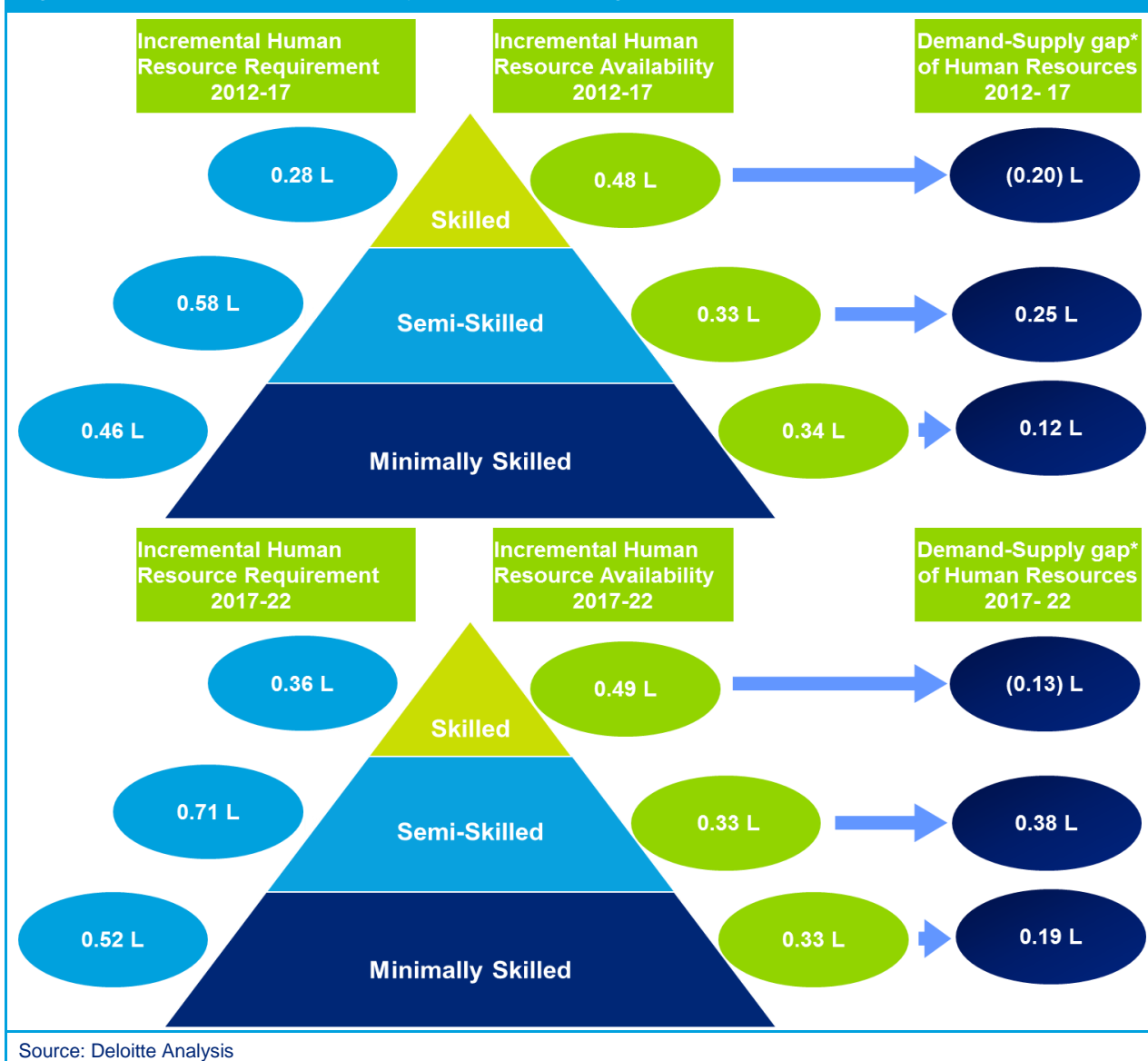
During the period 2012-22, the incremental human resource demand in Durg across all skill levels is estimated to be 2.89 lakh while the supply is projected to be 2.30 lakhs indicating thus a deficit of 0.60 lakh people (refer table below). There is estimated to be an excess demand across semi-skilled and minimally skilled segments while there is a surplus supply over the skilled segment.

Table 182: Projected Demand Supply gap ('00) by skill levels in Durg

#	District Skill Gap	2012-17				2017-22			
		Skilled	Semi-skilled	Min. Skilled	Total	Skilled	Semi-skilled	Min. Skilled	Total
1	Incremental HR Requirement (Demand)	275	575	459	1,310	357	706	522	1,585
2	Incremental HR Availability(Supply)	479	328	336	1,144	485	332	335	1,152
3	Demand-Supply Gap	(204)	247	124	166	(128)	374	187	433
	Overall Demand-Supply Gap				599				
Source: Deloitte Analysis									

During the period 2012-22, the incremental manpower demand supply gap of the district (across all sectors mentioned above) is expected to be a deficit of about 0.60 lakh people with the shortfall of manpower anticipated across semi- skilled & minimally skilled segments as shown in the following figure.

Figure 202: Incremental Demand-Supply Gap (in lakhs) , Durg



Some of the key trends observed on the demand-supply gap side include

- ✦ The composition of the human resource demand supply gap in the district over the two different time periods i.e. 2012-17 and 2017-22 is anticipated to remain the same.
- ✦ The excess supply in the skilled segment is expected to continue over the decade. This is in line with presence of better education facilities in the district. However, even in cases of excess supply, it is pertinent to note that it does not imply industry demand for skills is being sufficiently met. Employability linked skills have emerged as a key area of concern among industry. The changing trends of the sector including use of new technology and practices imply a need for reskilling and up skilling of existing workers.

- While overall supply is in excess of demand in skilled segment, there seems to be mismatch between outputs from higher educational institutions in the district (54% in general degree courses) to skills needed by sectors having high demand for skilled labor (e.g. BFSI). Due to the excess supply, skilled workers may need to seek employment opportunities outside the district.
- The trend of excess demand is likely to continue in the semi-skilled and minimally skilled segments across both the periods indicating greater requirement of the workforce in semi-skilled and minimally skilled category within the district. Moreover, primary interactions have raised employability & deficit in specific jobs/ skills amongst the current workers as major concerns. These have been captured in the qualitative skill gaps section below. In terms of educational qualification, approximately 62% of the total semi-skilled workforce is estimated to be class 12 pass outs having undergone no job specific training.

Qualitative Skill Gaps

The qualitative skill gaps that were highlighted during our primary interactions with industry at Durg are provided in the table below.

Table 183: Qualitative Skill Gaps

Sector	Level	Skill Gap
Manufacturing (mineral/metal based)	Manager/Engineer	<ul style="list-style-type: none"> • Project Management and People Management Skills • Knowledge of appropriate safety practices • Communication skills (Writing Skills)
	Supervisors	<ul style="list-style-type: none"> • Interpersonal and communication skills • Understanding of quality concepts • Understanding of product specifications • Knowledge and implementation of safety practices • Improve efficiency by avoiding wastage of resources
	Workmen/operators	<ul style="list-style-type: none"> • Understanding of discipline, industrial rules, work related procedures etc. • Ability to carry out basic troubleshoot in case of machine breakdown • Understanding of wastage or resources, to improve efficiency in working • Practicing safety measures in the workplace • Multi skilling
Building & Construction	Project Managers/Engineers	<ul style="list-style-type: none"> • Knowledge of design and tools such as AutoCAD etc. • Knowledge of green/eco-building design • Project Management and People Management Skills • Knowledge of appropriate safety practices • Client Management skills (e.g. government officials for approvals, flat owners etc.)
	Supervisors: plumbing, electrical, carpentry, masonry, drilling	<ul style="list-style-type: none"> • Skills in civil- operations of ready mix m/c, earth movers, etc. • Basic repair and maintenance • Exposure to right methodology in construction specific skills like lining, leveling etc. • Site safety concepts and procedures • Lack of finishing skills
	Workmen: plumbing, electrical works, carpentry, masonry, drilling	<ul style="list-style-type: none"> • Basic operating skills related to relevant category • Improved/ better quality in finishing • Site safety concepts and procedures • Ability to understand & follow instructions/ manuals
Trade (Retail and Wholesale)	Store/Department Manager	<ul style="list-style-type: none"> • Understanding of cross functional activities in the store esp. logistics, marketing and merchandising • People management skills • Vendor Management

Sector	Level	Skill Gap
	Billing Associate/ Accountants/ Computer operators	<ul style="list-style-type: none"> ♦ Lack of IT skills ♦ Knowledge of transaction processing software and cash management ♦ Knowledge of tally/accounting practice
	Sales/Customer Service personnel	<ul style="list-style-type: none"> ♦ Product specific knowledge ♦ Customer service and Inter personal skills ♦ Communication skills
Agriculture	Tractor operator and mechanics/ Electricians/ Mechanics for repair & maintenance of agricultural tools & implements	<ul style="list-style-type: none"> ♦ Sufficient training to address tool & equipment failures like motor pump failure, gear damage, tyre puncture etc.
BFSI	Middle level managers	<ul style="list-style-type: none"> ♦ Limited knowledge Banking operations ♦ Poor Client and team management skills ♦ Lack of Interpersonal and communication skills
	Business Facilitator / Correspondent/ Direct Selling Agents/Financial Advisors	<ul style="list-style-type: none"> ♦ Correct knowledge of products; ♦ Customer need assessment and Advisory Skills ♦ Communication and Selling Skills ♦ Customer service and Inter personal skills
	Officer and Trainee	<ul style="list-style-type: none"> ♦ Lack of in-depth Product Knowledge ♦ Poor Written and verbal communication Skills ♦ Inadequate Inter-personal skills
	Customer Service Executives	<ul style="list-style-type: none"> ♦ Limited Computer skills ♦ Limited Accounting knowledge ♦ Inadequate Communication Skills

4.10.8 Recommendations

Future Growth Opportunities in Durg

In the context of the current economic profile and proposed investments of the district, the demand for human resources at various skill levels has been analyzed. The observations have been augmented by primary interactions with industry & industry association representatives in the district and government officials at the state and district level. Based on our analysis and considering factors like high growth and employment potential, priority sector for the state government, investment trends, etc., the following sectors/industries have been identified with future growth opportunities for employment and subsequently, skill development in Durg.

Table 184: Key Growth Sectors - Durg

#	Priority Sectors	Growth opportunities in skills development and employment
1	Manufacturing (mineral/metal based units)	<ul style="list-style-type: none"> Manufacturing sector is currently the largest sub-sector contributing around 45% of the district economic output and is expected to grow at approximately 10.5% over the period 2012-22. Manufacturing units of mineral/metal based entities is projected to be the largest employer in the district with approximately 31.6% of the total incremental demand for employment estimated to come from this sector over the period 2012-22. In terms of absolute employment, this sector is likely to employ around 91,568 incremental human resources over the decade. The presence of Bhilai Steel Plant has helped the growth of many micro and small ancillary units in the district. The establishment of Industrial Growth Centre at Borai along with the proposed Engineering Park planned to be setup in Industrial Area, Bhilai and substantial investments proposed in the district for installation of sponge iron units, captive power plants, clinker and cement industries; coke oven plants etc. would aid the strong growth of the sector in future.
2	Building and Construction	<ul style="list-style-type: none"> Construction is another major contributor in the district economy which has share of around 14% to the Industry sector contribution in 2013 and is expected to grow at 12.6% (2012-22). The total budgeted value for ongoing building and construction activities (building and roadwork) in Durg for the year 2013-14 is allocated at Rs. 213 crores²⁴³. Building and construction is projected to be the 2nd largest employer in the district with approximately 15.5% of the total incremental demand for employment estimated to come from the sector. The sector is likely to have an estimated incremental demand for around 42,460 workers over the decade.
3	Trade (Wholesale + Retail)	<ul style="list-style-type: none"> Trade (Wholesale+ Retail) is estimated to grow at around 9% in the period 2012-22. The booming manufacturing industry in the district, especially steel, cement & power and the presence of a number of micro and small ancillary units along with the growth in building and construction activities has enabled the trade of raw materials as well as finished products in the district resulting in increasing manpower demand in the sector. It is anticipated to be one of the largest employers of the district, providing incremental employment to more than 29,000 workers contributing to about 10.0% of the total incremental employment in Durg over the period 2012-22.
4	Agriculture	<ul style="list-style-type: none"> Agriculture is currently providing employment to around 40% of the workers in

²⁴³ Chhattisgarh Public Works Department

#	Priority Sectors	Growth opportunities in skills development and employment
		<p>the district & is expected to grow at around 3.5% over the decade (2012-22).</p> <ul style="list-style-type: none"> Agriculture is anticipated to be the 4th largest incremental employer in the district accounting for around 9% of the total incremental demand for manpower. It is expected to provide incremental employment to around 26,420 persons over the decade.
5	BFSI	<ul style="list-style-type: none"> BFSI is another major contributor in the district economy which has share of around 9% to the total incremental demand for manpower and is expected to grow at 12% (2012-22). The sector is likely to have an estimated incremental demand for around 25,399 workers over the decade esp. for the job roles like financial intermediaries and business correspondents.
Source: Deloitte Analysis		

Considering the economic and skill landscape of Durg, the table below indicates the priority areas of focus for key stakeholders involved. These observations have been mainly derived from the growth opportunities identified above and through primary interactions with industry and industry association representatives in the district along with inputs from the students, training institutes and government.

Table 185: Key Recommendations for Stakeholders - Durg

Stakeholder	Priority Areas
NSDC	<p>NSDC can focus the efforts of its training partners in the key sectors identified in the district, viz.</p> <ul style="list-style-type: none"> Manufacturing – Mineral & metal based Building and Construction Trade (Wholesale + Retail) Agriculture BFSI
Private training providers	<ul style="list-style-type: none"> There is a need for more courses in manufacturing (mineral & metal based) owing to the demand for more trained workers in the sector. Additionally, courses in building and construction, agriculture, trade (wholesale + retail) and BFSI can also be explored. The training institutes should introduce/ substantiate multi-disciplinary courses in sectors such as BFSI, building & construction etc. There is a need for design and delivery of bridge courses with a focus on communication, language, basic IT and soft skills to make students job ready as highlighted in youth survey as well. There is a need to strengthen/improve the current technology and facilities/equipment in the institute as indicated by around 46% of the youth surveyed in the district.
Government	<ul style="list-style-type: none"> The Government should promote and endorse vocational education as a practical alternative to formal education with emphasis on providing job ready courses. The Government should incentivize vocational education and subsequent certification for the workforce in the district in terms of wage revision. The Government should encourage more vocational training institutes on public private partnership mode in the district. The government should facilitate programs to encourage self-employment in the district. For this purpose, the MSME-DI, Raipur can arrange multiple product-cum-process oriented programs in the district like Entrepreneurship Skill Development programmes (ESDPs), Entrepreneurship Development Programmes (EDPs), Industrial Motivation Camps (IMCs), BSDPs etc. with an objective of developing entrepreneurial qualities and preparing new entrepreneurs to setup their own small enterprises. Unavailability of information is one of the key concerns highlighted by youth in the district. For addressing the same, the regional DET offices and employment exchanges should collaborate together and arrange awareness campaigns in the district with focus on providing information on the VTP/Skill development institutes in the district along with the courses offered, registration process, course requirements, future job opportunities etc. It should be followed by at least one annual job fair in the district

organized in collaboration with industry.	
Industry	<ul style="list-style-type: none"> There is a need to collaborate with skill development institutes (SDI), ITIs and Employment Exchanges in the district to create structures/ linkages for placement and internship/ OJT opportunities. Industry players should provide inputs in curriculum for ITIs and skill development institutes to improve the practical component of learning. Approximately 47% of the students surveyed in Durg expressed their dissatisfaction with the alignment of the training/education currently provided by the educational institutes in the district with the potential job requirements of the employers. Industry players should participate in relevant SSCs to provide relevant inputs especially in the high growth sectors identified in the district. The large industries in the district like Bhilai Steel Plant should undertake and encourage vocational training in manufacturing (mineral & metal based) sectors as a part of their CSR activities and partner with relevant Skill Development Institutes in terms of infrastructural support, guest/visiting faculty & On The Job training (OJT) etc.

4.11 Gariaband

4.11.1 District Profile

Gariaband district, located in the western part of Chhattisgarh was carved out of Raipur district on 1st Jan, 2012.

The district is a part of Raipur division in the north and falls under the fertile Chhattisgarh Plains agro climatic zone. It is bordered by Raipur & Mahasamund districts in North, Gariaband district in West and Orissa in East & South.

The district is divided into 5 tehsils for its administrative functioning viz. Chhura, Deobhog, Rajim (Phingeshwar), Gariaband (Bindranavagarh) and Mainpurkalan²⁴⁴. Gariaband is the administrative headquarter of the district. Chhura and Mainpurkalan are the newly formed tehsils in Census 2011. Gariaband, Chhura, Phingeshwar, and Rajim are the Nagar Panchayats. The district has a total of 4 statutory towns, 706 Villages (habitant and unhabitant), and 4 Nagar Panchayats²⁴⁵. Hindi and Chhattisgarhi are the local languages used in Gariaband.

Map 12: Gariaband District

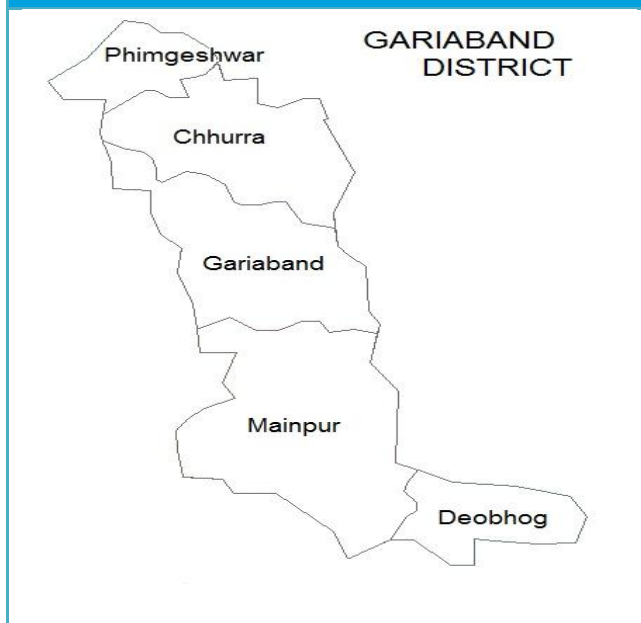


Table 186: Gariaband District Profile

#	Indicator	Gariaband	Chhattisgarh	% Share
1.	No. of sub-districts	5	149	3.4
2.	No. of villages	706	20126	3.5
3.	No. of households (lakhs)	1.28 ²⁴⁶	56.50	2.3
4.	Average Land holding size (Ha)	1.40*	1.17	-
5.	Forest area cover	33.16% ²⁴⁷	41.18%	-

Source: Census 2011; Directorate of Economics and Statistics- Government of Chhattisgarh; State of Forest Report 2011-Forest survey of India; Deloitte Analysis

* Data is for undivided Gariaband (including Baloda Bazar & Raipur)

²⁴⁴ Census 2011

²⁴⁵ Census 2011

²⁴⁶ Deloitte Analysis (Divided according to the population ratio of Raipur, Baloda Bazar & Gariaband)

²⁴⁷ Data is for Dhamtari & undivided Raipur (including Baloda Bazaar & Gariaband)

4.11.2 Demography

As per Census 2011, Gariaband has a total population of 5, 97,399 registering a decadal population growth of 37.8%²⁴⁸ over the decade 2001-2011. It is much higher than the population growth of 19.29%²⁴⁹ during the period 1991-2001. Gariaband is one amongst the least populated districts of Chhattisgarh. As of 2011, Gariaband ranks 22nd amongst all the districts of Chhattisgarh in terms of population. The district shares approximately 2.3% of the state's population. Kamar and Bhunjia are the chief tribes in the district.

About 93.2% of the total population resides in rural areas with just 6.8% of them being urban residents. Rajim tehsil in Gariaband is one of the lowest rural population (percentage) growth tehsils in the state registering a 1.2% population decrease over the decade.

Nearly 60.6% of the district's population is in the working age population group. The sex ratio of the district at 1018 females per 1000 males was better than the state figure of 991 females per 1000 males. The district has a lower per capita income than the state average. It ranks 15th among the 27 districts in terms of per capita income

Table 187: Demographic Indicators of Gariaband

Demography	Gariaband	Chhattisgarh
Population (2011)	5, 97,399	2,55,40,196
Population 15-24 (2011)	1,25,063	49,89,339
Decadal Population Growth Rate (2001-11)	37.8%	22.6%
Population density per sq. km (2011)	328*	189
Percentage of Urban Population (2011)	6.77%	23.2%
Percentage of SC population (2011)	17.8%*	12.8%
Percentage of ST population (2011)	11.7%*	30.6%
Average household size	4.66*	4.54
Sex Ratio (2011)	1018	991
Working age population (15-59) as a percentage of total population, %	60.6%	60.1%
Per Capita Income (2009)	Rs.19,162 ²⁵⁰	Rs.28,263
Source: Census of India 2011, Directorate of Economics and Statistics- Government of Chhattisgarh & Chhattisgarh, Deloitte Analysis		
* Data is for undivided Gariaband (including Baloda Bazar & Raipur)		

Key Observations:

- ♦ Gariaband is one amongst the least populated districts of Chhattisgarh. As of 2011, Gariaband ranks 22nd amongst all the districts of Chhattisgarh in terms of population. Kamar and Bhunjia are the chief tribes in the district.
- ♦ Rajim tehsil in Gariaband is one of the lowest rural population (percentage) growth tehsils in the state registering a 1.19% population decrease over the decade.

²⁴⁸ Census 2011, Deloitte Analysis

²⁴⁹ Data is for undivided Gariaband (including Baloda Bazar & Raipur)

²⁵⁰ Deloitte Analysis (At 2004-05 constant prices)

4.11.3 Economic Profile

The economy of Gariaband has registered a CAGR of 9.7% (estimated at constant price, 2004-05) between 2004-05 and 2008-09 and grown from Rs. 746.7 cr to Rs. 1082.0 cr²⁵¹. The district recorded a slightly higher economic growth rate compared to state average (9.6%) over the period 2005-09.

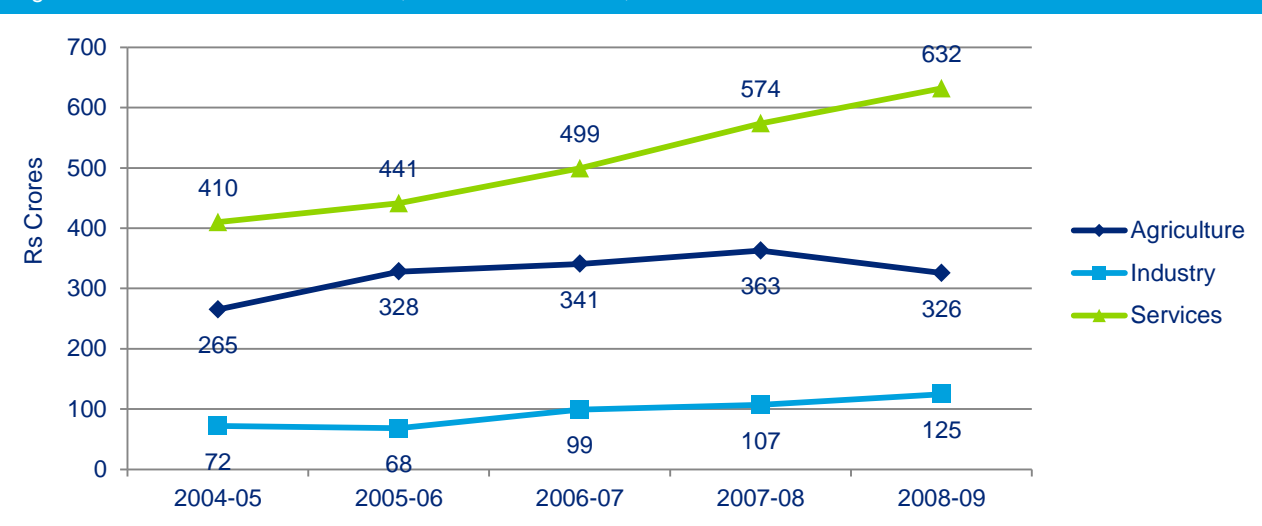
As per the analysis, in 2008-09, Gariaband district contributed 1.6% in the state economic activity. At Rs. 1082.0 cr., it ranked 21st in the state in terms of economic contribution amongst all the districts of Chhattisgarh.

The economy of Gariaband district is pre-dominantly Services sector based with its share in GDDP being 58.4% in 2008-09. This is followed by Agriculture sector which contributes around 30.1% in the district economic profile and Industry sector contributing 11.5%.

In terms of sector level contribution to GDDP, the Agriculture sector's contribution has declined from 35.5% in 2004-05 to 30.1% in 2008-09. The Industry sector's contribution over the same period increased from 9.6% to 11.5%. The contribution of Services sector in the district also increased over the same time periods from 54.9% to 58.4%.

The sector-wise GDDP growth and distribution from 2005-09 is provided below:

Figure 203: Sectoral Share of GDDP, 2004-05 to 2008-09, Gariaband



Source: Directorate of Economics and Statistics- Government of Chhattisgarh (2004-05 base price); Deloitte Analysis

²⁵¹ Directorate of Economics and Statistics-Chhattisgarh; Deloitte Analysis

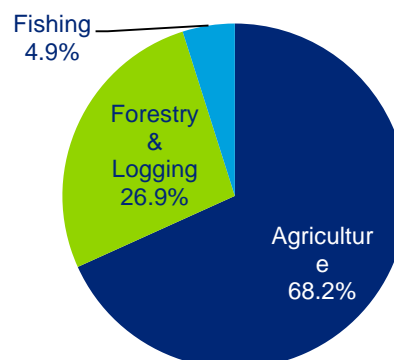
Agriculture Sector

The contribution of Agriculture sector (agriculture, forestry & logging and fishing) to the GDDP was 30.1% in 2008-09. The sector grew at a CAGR of 5.3% between 2004-05 & 2008-09. The overall contribution of the sector in the district economic profile decreased from 35.5% in 2004-05 to 30.1% in 2008-09.

Agriculture is the chief contributor in the total output of the Agriculture sector in the district contributing around 68.2 % in the year 2008-09 followed by forestry & logging (26.9%) and fishing (4.9%).

Forestry and logging activities also play an important role in the district economy providing a significant source of livelihood to the inhabitants. Gariaband falls under the Raipur forest circle and the important non nationalized species available in the district are Kusum (Lac), Palash, Imli, Mahulpatta, Mahua, Karanj, Chironjee, Kusum (Oil Seed), Bachandi, Shahad, Bageda, Aonla, Kalijeeri, Bel, Baibiding, Kalmegh and Nagarmotha.

Figure 204: Sub-sectoral break-up of Agriculture sector (2008-09), Gariaband



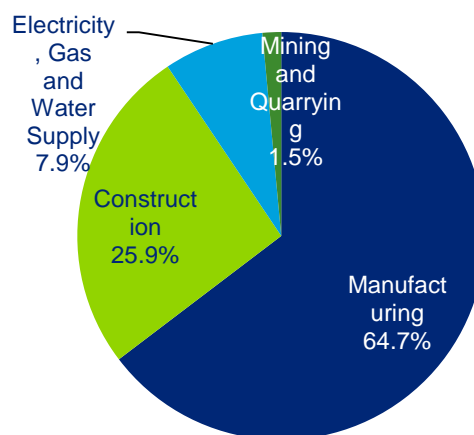
Source: Directorate of Economics and Statistics- Government of Chhattisgarh; Deloitte Analysis

Industry Sector

The Industry sector (mining & quarrying, manufacturing, construction and electricity, gas & water supply) contributed 11.5% to the GDDP in 2008-09. The sector grew at a CAGR of 14.8% between 2004-05 & 2008-09. The overall contribution of the sector in the district economic profile increased from 9.6% in 2004-05 to 11.5% in 2008-09.

Manufacturing sector is the major contributor within the Industry sector accounting for a sectoral share of 64.7% followed by construction (25.9%), electricity, gas & water supply (7.9%) and mining & quarrying (1.5%). The total budgeted value for ongoing building and construction activities (building and roadwork) in Gariaband for the year 2013-14 allocated at Rs. 47 crores shows the current focus of the district on the sector²⁵².

Figure 205: Sub-sectoral break-up of Industry sector (2008-09), Gariaband



Source: Directorate of Economics and Statistics- Government of Chhattisgarh; Deloitte Analysis

Gariaband is famous for its diamond resources with incidences of diamond being reported in the district. Discovery of diamondiferous kimberlite in Mainpur area of the district have attracted global attention. So

²⁵² Chhattisgarh Public Works Department

far six kimberlites in Mainpur area have been discovered²⁵³. The Mainpur Kimberlite Field (MKF) is one of the 3 established diamond bearing Kimberlite field in peninsular India²⁵⁴. Occurrence of Flag Stone (minor mineral) is also stated in the district.

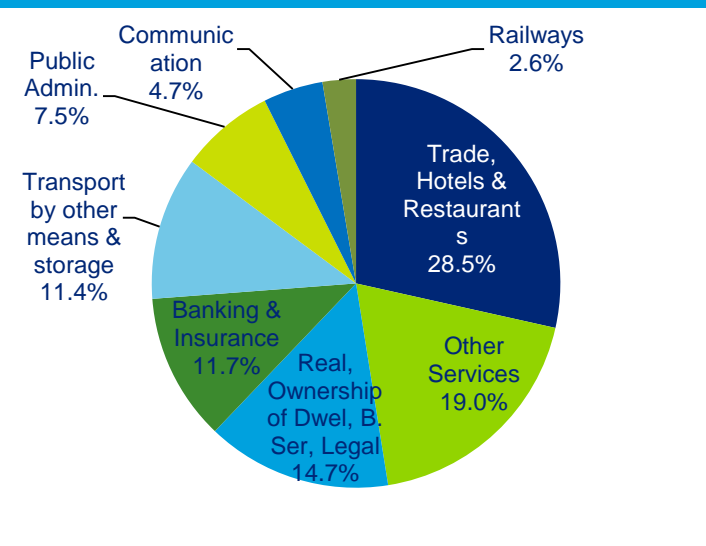
Services Sector

The Services sector was the major contributor to the district economy in 2008-09 with a share of around 58.4% to the GDDP. The sector grew at a CAGR of 11.4% between the period 2004-05 & 2008-09.

Trade, Hotels & Restaurants were the chief contributor of the Services sector in Gariaband contributing approximately 28.5% to the district Services sector. Other Services (19.0%), Real Estate (14.7%), Banking and Insurance (11.7%) and Transport by other means & storage (11.4%) are the other major contributors in the Services sector profile of the district in 2009.

The district headquarter is located at a distance of 93 kms towards south from Raipur. Roads are the major mode for commuting within the district. The nearest airport for Gariaband is the Raipur airport and the nearest major railway station is the Raipur Junction railway station situated at a distance of 91 kms.

Figure 206: Sub-sectoral break-up of Services sector (2008-09), Gariaband



Source: Directorate of Economics and Statistics- Government of Chhattisgarh; Deloitte Analysis

Key Observations:

- ♦ The economy of Gariaband district is pre-dominantly Services sector based with its share in GDDP being 58.4% in 2008-09. This is followed by Agriculture sector which contributes around 30.1% in the district economic profile and Industry sector contributing 11.5%.
- ♦ In terms of sector level contribution to GDDP, the Agriculture sector's contribution has declined from 35.5% in 2004-05 to 30.1% in 2008-09. The Industry sector's contribution over the same period increased from 9.6% to 11.5%. The contribution of Services sector in the district also increased over the same time periods from 54.9% to 58.4%.

²⁵³ Directorate of Geology and Mining, Chhattisgarh

²⁵⁴ Mineral Resources of India, Geological Survey of India (GSI)

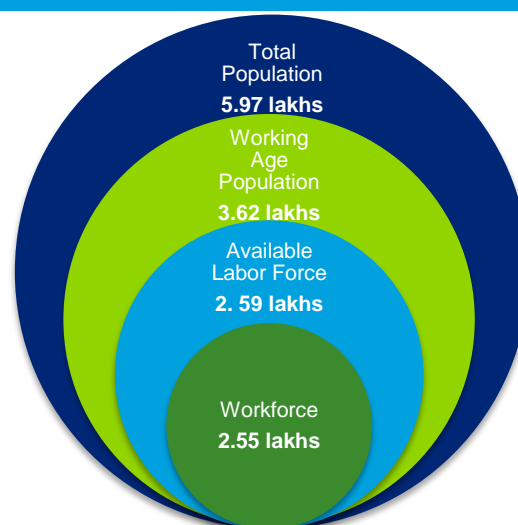
4.11.4 Employment Profile

With a total population of 5.97 lakhs in the year 2011, Gariaband accounts for nearly 2.3% of the state's population.

The adjacent figure depicts the estimated workforce in Gariaband in the context of total population of the district. Out of the total population of 5.97 lakhs in the district, the working age population (between 15-59 age group) is estimated at around 3.62 lakhs or nearly 60.6%.

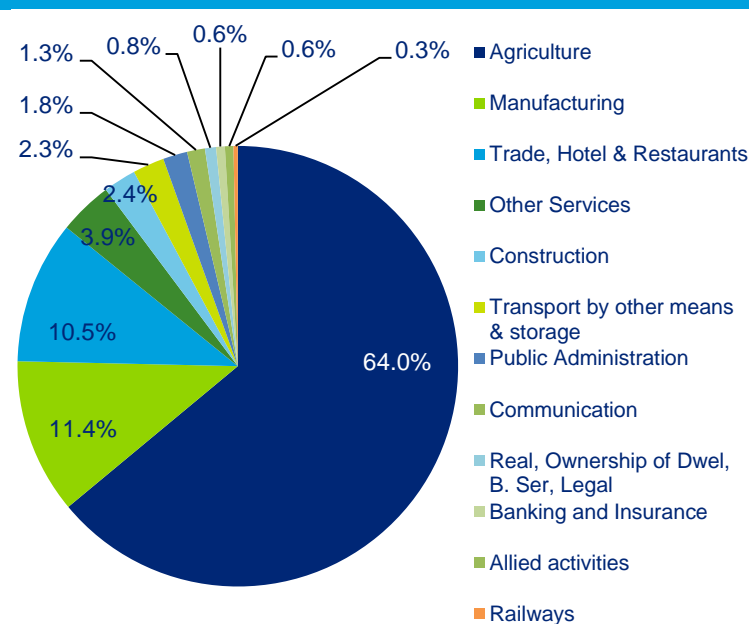
Based on the labor force participation rate and the worker participation rate estimates for the state, the available labor force is estimated to be 2.59 lakhs, and the workforce is estimated at 2.55 lakhs or nearly 70% of the working age population. Almost four-fifth of the workforce in the district is engaged in Agriculture sector in 2011, followed by the Services sector which employs around 16% of the total workforce with the remaining being employed by the Industry sector.

Figure 207: Total Workforce in Gariaband (2011)



Source: Census 2011 and Deloitte Analysis

Figure 208: Sector wise employment in Gariaband (2011)



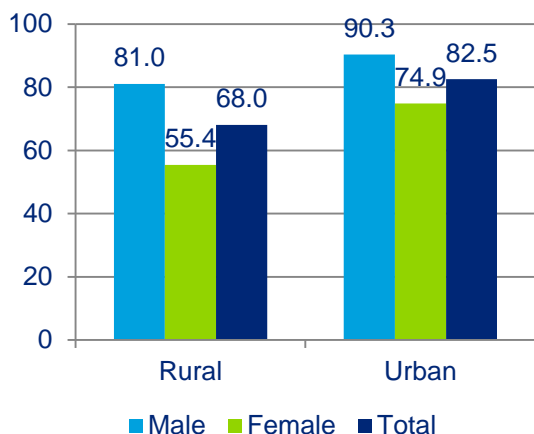
Source: Census 2011 and Deloitte Analysis

The sector-wise employment of Gariaband for the year 2011 is shown in the adjoining figure. Agriculture contributed to around 64% of the total employment in the district. Manufacturing was the second highest employer in the district (11.4%) followed by trade, hotels and restaurants (10.5%), other services (3.9%) and construction (2.4%). There exists disparity between the sector contribution to GDDP and the proportion of people employed for the sectors. Sectors like trade, hotels and restaurants and other services show very little proportion of employment when compared to the GDDP contribution as opposed to Agriculture which employs the bulk of people while contributing much less to the GDDP.

4.11.5 Education Infrastructure

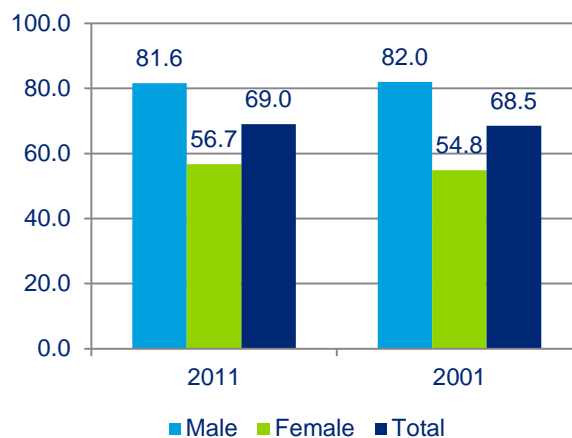
The literacy rate in Gariaband has improved from 68.5%²⁵⁵ in 2001 to 69.0%²⁵⁶ in 2011. The literacy rate of the district is lesser than the state's literacy rate of 70.3% in 2011 as well as the all-India literacy rate of 73%. In 2011²⁵⁷, male and female literacy rates stood at 81.6% and 56.7% respectively with the female literacy rate registering an improvement compared to the 2001²⁵⁸ figure of 54.8% respectively. However, there still exists a significant disparity between the male-female and urban-rural literacy rates.

Figure 209: Literacy rate 2011 (by residence), Gariaband



Source: Census of India 2011

Figure 210: Literacy rate (by Gender), Gariaband



Source: Census of India, 2001 and 2011

*2001 data is for undivided Raipur

School Education

Gariaband has 1137 primary schools, 498 upper primary schools, 80 secondary schools & 69 higher secondary schools.

Table 188: Status of school education infrastructure in Gariaband, 2013

#	Educational Statistics	Units in Gariaband	Units in Chhattisgarh	% Share in State
1	Primary School	1137	35588	3.2%
2	Upper Primary School	498	16442	3.0%
3	Secondary School	80	2632	3.0%
4	Higher Secondary School	69	3548	1.9%
5	NER (Primary) (2010-11)	100%	98.0% ²⁵⁹	-
6	NER (Upper Primary) (2010-11)	74.1% ²⁶⁰	67.8%	-

Source: DISE 2012-13

²⁵⁵ Data is for undivided Gariaband (including Raipur and Baloda Bazar)

²⁵⁶ Census 2011; Deloitte Analysis

²⁵⁷ ibid.

²⁵⁸ Data is for undivided Gariaband (including Raipur and Baloda Bazar)

²⁵⁹ Data is for 2008-09

²⁶⁰ Data is for undivided Gariaband (including Raipur and Baloda Bazar)

Vocational Education

For vocational training, Gariaband has a total of 4 ITIs in the district, of which 3 are Government Industrial Training Institutes while one is a Private Industrial Training Institute. Gariaband does not have any woman ITI. The total capacity of the ITIs in the district is 392. The capacity of Government ITIs is 288 and that of Private ITIs is 104. Electrician and Fitter courses have the maximum units affiliated among ITIs.

The number of courses available in ITIs and their capacity are listed in the table below:

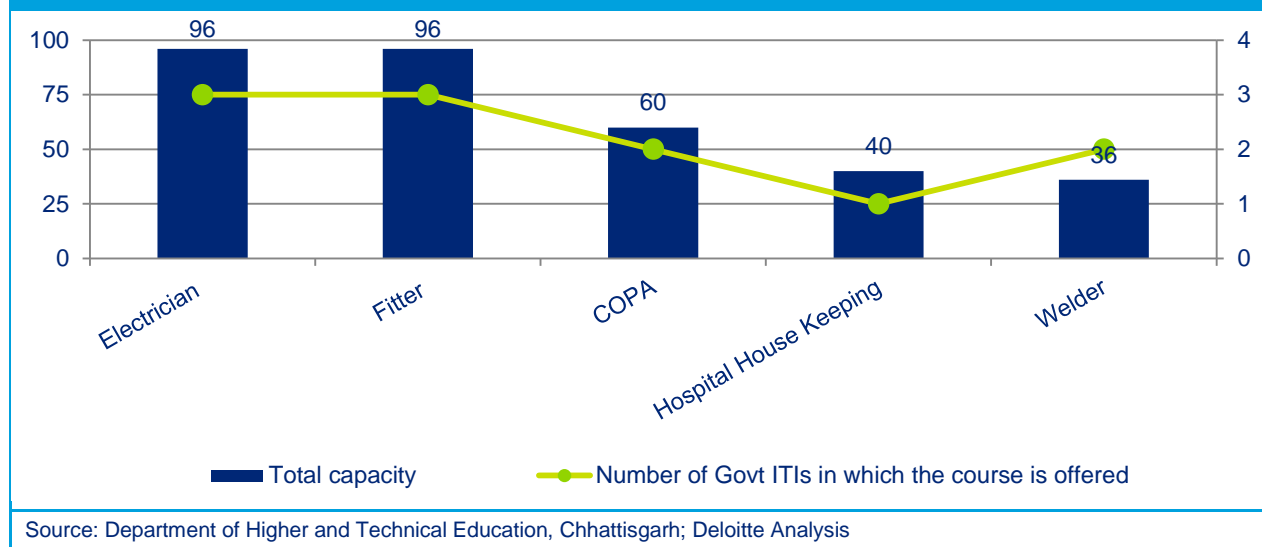
Table 189: ITIs in Gariaband and their capacity

Name of ITI	Number of courses offered	Total Units affiliated	Total Capacity
Government Industrial Training Institute, Gariaband	6	12	192
Government Industrial Training Institute, Mainpur	3	5	76
Government Industrial Training Institute, Deobhog	1	1	20
Institute of Technology & Science Private ITI,	3	6	104
Total	7*	24	392

Source: Department of Higher and Technical Education, Chhattisgarh; Deloitte Analysis
 *Total number of different courses offered by ITI's in Gariaband

The major courses offered in the ITIs and their capacity in Gariaband is given in the figure below:

Figure 211: Major courses offered in Government ITIs and their capacity in Gariaband



According to Chhattisgarh State Skill Development Mission Website, as of 12th March 2014, Gariaband has 57 Vocational Training Providers (VTPs) under which there are 1528 registered beneficiaries.

The following table highlights the courses offered in vocational education, which currently meet requirements of about 9 sectors.

Table 190: Courses offered in vocational education, Gariaband

Sector	ITI trades and Units affiliated	Courses Offered by VTPs
Auto and auto components Electronics and IT hardware	Electrician(6), Fitter(6), Welder(3)	Electrical, Fabrication, Electronics, Automotive Repairs
IT and ITES Tourism, hospitality and travel Organized retail Media and entertainment Banking, financial services and insurance	Computer Operator and Programming Assistant(3), Stenography (2)	ICT, Soft skill, Banking, Retail, Insurance, Business & Commerce, Media
Textiles and clothing Leather and leather goods Food processing		Garment making,
Building, construction and real estate Transportation, logistics, warehousing and packaging Construction material and building hardware Furniture and furnishing	Draughtsman(Civil) (2)	Rain Water Harvesting, Renewable Energy, Construction
Healthcare Services Education and skill development Unorganized sector (particular reference to agriculture, security, plumbing, domestic worker, foundry, etc.)	Hospital House Keeping (2)	Toy Making, Agriculture
Source: CSSDA Website		

Higher Education

The status of higher education in Gariaband is not very promising. Out of a total 590 colleges in the state, only 10 colleges are in the district of Gariaband indicating the district's share in the higher education space of the state at just 1.7%. This is lower in comparison to the share of population of Gariaband to the state (2.3%). Out of these 10 colleges, 9 offer general degree courses. There is no technical, management or medical college in the district.

Table 191: Number and Capacity of Higher Education infrastructure in Gariaband

#	Colleges	Number	Estimated Capacity*
1	Arts, Science and Commerce	9	-
2	Teacher Education	1	-
	TOTAL	10	-
*Source: University/College websites			

Key Observations:

- ♦ There are 4 ITIs and 14 VTPs active in the district.
- ♦ Gariaband has only 10 colleges of which 9 offer general degree courses.

4.11.6 Youth Aspirations

Youth population constitutes the most important demographic section for a district from a skills development perspective. In the process of capturing the aspirations of the youth population in Gariaband, focused group discussions were held with youth from educational institutions as well as residing in rural areas to understand their concerns, areas of interest and future dreams and goals. The FGD in Gariaband was conducted at the Gram Panchayat, Mazarkatta village. 37% of the respondents were in the age group 15-20 while 58% of them were between 21-25 years. Remaining 5% of the respondents were 26 years and above. The educational qualification of about 20% of the participants was ITI or diploma, 66% were from high school and below while the remaining participants were graduates and above. The key observations about aspirations of the youth of the district are highlighted below:

Table 192: Youth Aspiration – Key Responses – Gariaband

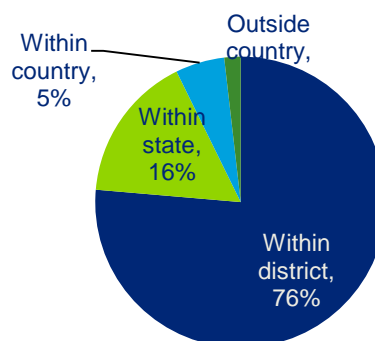
Parameters	Responses
Job Preference	<ul style="list-style-type: none"> Students want to be employed in Government sector as well as in private sector. However, most of the youth preferred Government jobs over private jobs due to the job security offered in a Government job
Preferred Course	<ul style="list-style-type: none"> Training for job readiness appears to be most popular among the youth in the district. People want to get training in the computer training, TV repair and soft skill programs. Women are interested in tailoring & sewing, beautician etc.
Migrating for job	<ul style="list-style-type: none"> Most of the youth prefer jobs within the state. Women want to work within district. Males are willing to go outside district for jobs.
Salary Expectations	<ul style="list-style-type: none"> Average monthly salary expectation of youth ranges between Rs 5,000-22,000/- depending on qualification.
Areas of concern/ aspirations- Infrastructure	<ul style="list-style-type: none"> Youth reported poor quality of infrastructure in the institutes in terms of building, playgrounds, washrooms, etc.
Areas of concern/ aspirations-Course Curriculum	<ul style="list-style-type: none"> Youths expressed the need for resourceful and good teachers. Youths expressed that admission process should be modified, need for counseling before admission was emphasized. Youth highlighted the inclusion of soft skills and other developmental programmes in the current course structure. Rural youth expect free computer training, free coaching for competitive examination and training camps within the district. Youth feel that institutes should have more tie-ups between industries and institution
Suggestions given by youth	<ul style="list-style-type: none"> The youth expect Government to take up initiatives to improve college infrastructure. There should be more courses, practical classes, resourceful, efficient and regular teachers available in the institutes. The Government should open new institutes with more trades. There should be more tie-ups between industries and institutions. Youth expressed that Govt. should take measures to improve education at primary level so as to make students more competent in higher classes.

A sample survey was conducted with youth at gram panchayat level & those coming out from various educational institutions (Government & private) to understand & capture their aspirations. The findings are presented below:

Job preference by youth

The majority of the youth we surveyed (76%) **prefer to get a job within the district** as is evident from the adjacent figure. Approximately 16% of them preferred for job within their state, while 5 % preferred jobs inside country and 2% outside the nation. The survey highlights the fact that around **92% of the youth surveyed wanted to get a job within Chhattisgarh** thus demanding and necessitating the creation of suitable positions and absorption capacity for them in the employment market. The survey reveals that not many youth are interested to migrate out of state in search of jobs.

Figure 212: Job Preference by Youth

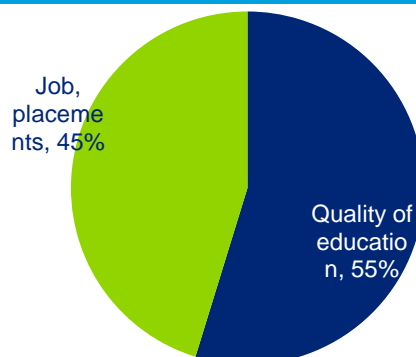


Source: Deloitte Analysis

Parameter for Institute Selection

A majority of the students surveyed (55%) at the gram panchayat level quoted the **quality of education** as their prime parameter while selection of an institute for higher education. 45% of them mentioned the **job placement facility available in the institute as the primary criteria for admission**

Figure 213: Parameter for Choice of Institute



Source: Deloitte Analysis

Youth Perception Mapping

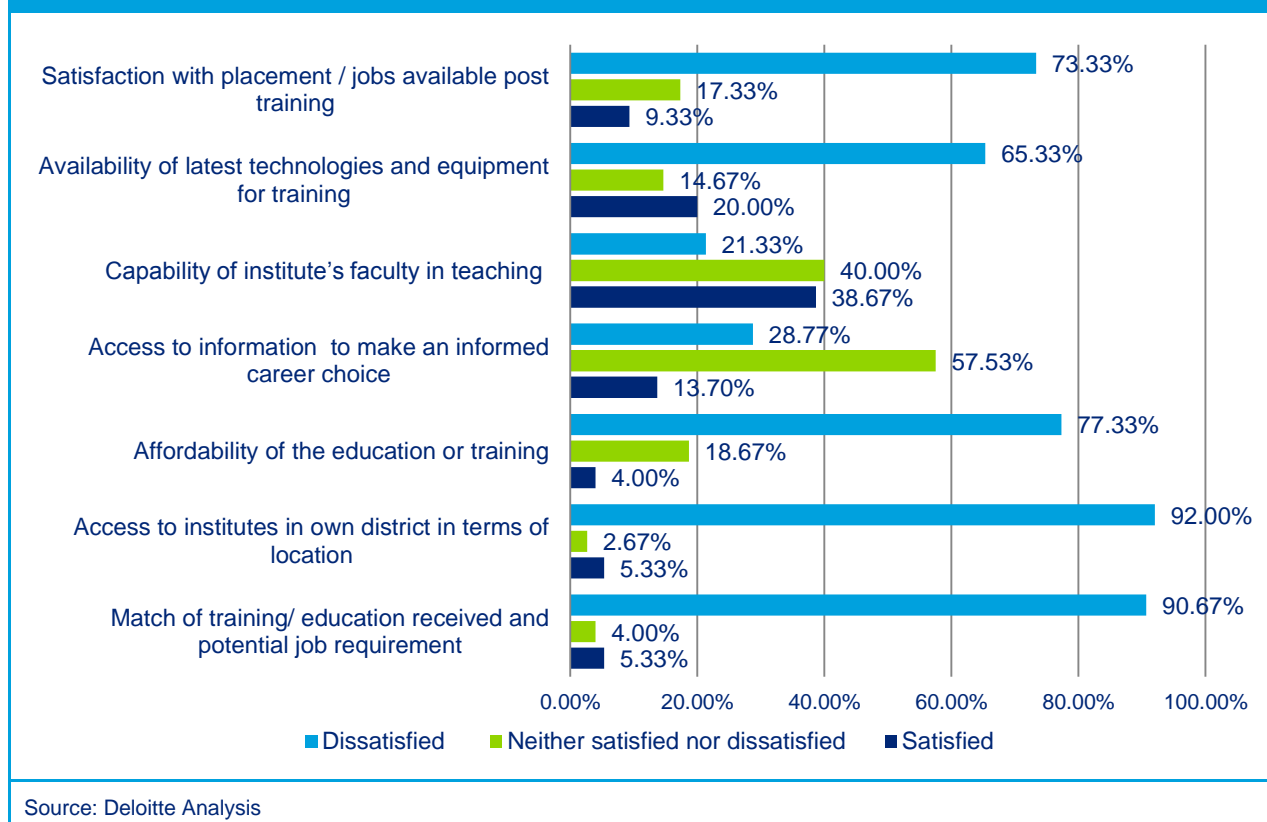
Youth perception mapping was undertaken to understand their level of satisfaction with either their current institute or their experience and feedback on the available educational infrastructure. The results are summarized below:

Dissatisfaction with placement / jobs available post training: Around 73% of the students surveyed expressed their dissatisfaction with the placement opportunity available in the institute or jobs available post training. 9% of them felt the job opportunities available to them post training were satisfactory. They shared their expectation of being provided with a placement opportunity by the institute or facilitate a tie-up with nearby companies to give them an experience of hands on training.

Availability of latest technologies and equipment for training: 65% of the students surveyed expressed their dissatisfaction with the availability of latest technology & equipment for training in the institute while only 20% of them shared their satisfaction with the same. They felt the lack of equipment as a major constraint for their knowledge enhancement and appropriate level of skill development. They demanded that the institutes to be adequately equipped and upgraded with latest technology.

Dissatisfaction with capability of institute's faculty in teaching: 39% expressed their satisfaction on the quality of teachers in the institutes. On the other hand, around 21% of the students (especially the students from Government ITI's) feel the quality of teaching by faculty is not satisfactory and needs significant improvement. They demanded the number of faculty to be increased as per the demand of the course and the lack of quality faculty in the institute to be compensated by inviting visiting faculty from outside.

Figure 214: Youth Perception Mapping, Gariaband



Need for better access to information to make an informed career choice: While 29% of the students vouch for accessibility to information to make an informed career choice, around 14% of them felt that they did not get proper accessibility to information to make an informed career choice. The majority (58%) were neutral in their opinion.

Affordability is as high a concern as quality and value for money in education or training: Majority of the students (around 77%) felt that the fees charged by the education/ training institute was a barrier for them and considered it to be unaffordable for them. They raised their concern that the quality of the training programme offered should be commensurate with the fees charged.

Access to institutes is a major concern: 92% of the students surveyed expressed their dissatisfaction with the accessibility of the educational institutes in terms of location. They found the institute to be located in inaccessible area. Around 5% students felt the educational institutes to be accessible in terms of location.

Dissatisfaction with the alignment of training/education received with job requirements:

Approximately 91% of the students surveyed feel that the training/education currently provided by the educational institutes in the district is not in alignment with the job requirements of the business. This highlights the very important fact that the students believe the education or training received is not beneficial for them during their job.

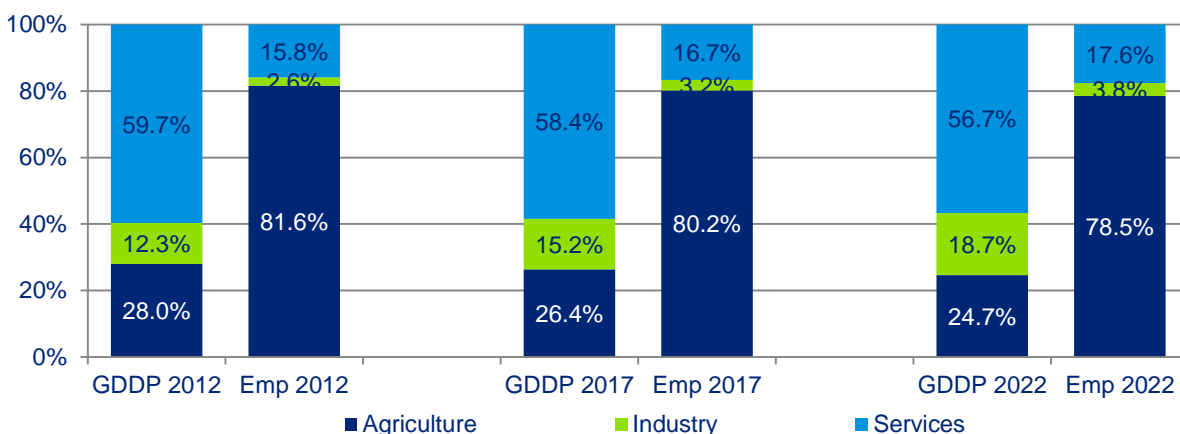
Key Observations:

- ◆ Students want to be employed in Govt. sector as well as in private sector, the expected salary ranges from Rs.8,000-22,000 depending on qualification.
- ◆ People want to get training in the computer software, soft skills etc. Women prefer training in sewing, tailoring, etc.
- ◆ Need for updating course content & creating linkages for placement was strongly expressed
- ◆ Improving institute-industry interface to ensure better apprenticeship training was emphasized
- ◆ Training for job readiness appears to be most popular among the youth.
- ◆ Need to address infrastructure gaps - particularly updating the toilet, libraries, buildings, tools and equipment was expressed
- ◆ Youth expressed the need for resourceful and better teachers in the institutes.
- ◆ Youth are not aware about the different Government initiatives on skill development.

4.11.7 Skill Gap Assessment

The working age population (15-59) constituting 60.6% of total district population in 2011, is expected to increase to 64.3% by 2022. Demand for jobs is expected to increase leading to the need for job creation. Similarly, to reap this demographic dividend, supply of labour must be adequately skilled.

Figure 215: Comparison of Sectoral share in GDDP & Employment, Gariaband



Source: Deloitte Analysis

The above figure also depicts the significant disparity in the structures of economy and employment in the district. Based on our analysis and primary interactions, the Agriculture sector is expected to be an important sector in terms of providing employment in the district and would account for the largest share of workforce over the decade. If the trends in employment continue, in 2021-22, the share of employment across the Agriculture sector is expected to decline to 78.5% as compared to 81.6% in 2012.

The Industry and Services sector employment share are estimated to increase to 3.8% and 17.6% respectively, as indicated in the table above. This trend appears to be in line with the national trend as well where people are moving out of the Agriculture sector and moving into the Industry and Services sectors respectively.

Incremental Human Resource Demand

As per the methodology, the total incremental demand for manpower in Raipur from 2012 to 2022 is expected to be around 0.57 lakh. Following table provides the break-up of the incremental demand for manpower in Gariaband as per skill level required.

Table 193: Estimated Incremental Human Resource Demand ('00s) by Skill Level in Gariaband

	2012-17	2017-22	Total
Skilled	32	38	70
Semi-Skilled	57	64	121
Minimally Skilled	186	190	376
Total	275	291	566

Source: Deloitte Analysis

Some of the key trends observed on the demand side include

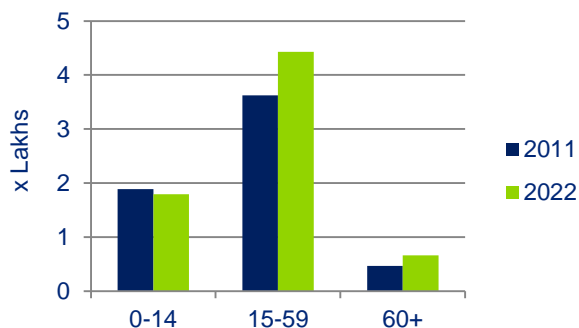
- ♦ *Agriculture will be the largest incremental demand generating sector (62.7%) with demand largely in the minimally skilled level.*
- ♦ *Within the Industries sector, the greatest incremental demand on employment is expected to come from the building and construction (2.9%) sector.*
- ♦ *Within the Services Sector, trade (retail + wholesale) is expected to contribute about 6.6% of the total incremental demand for employment, followed by BFSI and communication each at 3.3%.*
- ♦ *Analysis of formal and informal employment indicates that the incremental demand for manpower in formal sector would come mainly from BFSI, Trade (retail + wholesale), Public Administration and Building and Construction.*
- ♦ *Majority of demand for incremental manpower in the informal sector is projected to come from Agriculture, Trade (retail + wholesale), Food processing and Transport and logistics.*

Table 194: Incremental Human Resource Demand ('00) by Skill Level in Gariaband - Key Sectors

Table 154: Incremental Human Resource Demand (00's) by Skill Level in Canada - Key Sectors									
#	Sector	2012-17				2017-22			
		Skilled	Semi-skilled	Minimally Skilled	Total	Skilled	Semi-skilled	Minimally Skilled	Total
1	Agriculture	5	18	155	178	5	18	154	177
2	Trade (Retail + Wholesale)	3	9	7	19	3	9	7	19
3	Banking/ Insurance/ Finance	4	3	0	8	6	5	1	11
4	Communication	2	3	3	8	2	4	4	10
5	Building & construction	1	3	3	7	1	4	4	10
6	Public Administration	4	2	1	7	5	2	1	8
7	Transportation & logistics/ warehousing/ packaging	1	2	4	7	1	2	5	8
8	Others	12	16	12	41	15	19	14	49
	Total	32	57	186	275	38	64	190	291
Overall Incremental Demand							566		
Source: Deloitte Analysis									

Incremental Human Resource Supply

Figure 216: Age wise distribution of population, Gariaband 2011 and 2022 (projected)



Source: Census 2011 and Deloitte Analysis

The population of Gariaband is expected to increase from 5.97 lakhs in 2011 to 6.88 lakhs in 2022. The adjacent figure provides the current and projected population across various age groups. As per the analysis, the number and proportion of children in 0-14 age group is projected to fall by about 0.10 lakh children, while the number of persons in the working age group is expected to increase by 0.8 lakh during the same period. This represents a potential demographic dividend for the district with a large increase in the employable population. On the other hand, it presents a huge challenge for the state to make available higher education and skill development facilities as well

as ensure productive employment opportunities.

The number of persons in the working age group is expected to increase by 2.65 lakh during the same period. This represents a potential demographic dividend for the district with a large increase in the employable population. On the other hand, it presents a huge challenge for the state to make available higher education and skill development facilities as well as ensure productive employment opportunities for its population.

As per the methodology, the estimated total incremental manpower supply in Gariaband over the decade (2012-2022) will be about 0.8 lakhs. Incremental manpower supply from various educational and vocational training institutes in the district can be further classified into skilled, semi-skilled and minimally skilled as per the educational qualifications.

Table 195: Estimated Incremental Human Resource Supply (in '00s) by Skill Level in Gariaband

	2012-17	2017-22	Total
Skilled	70	74	144
Semi-Skilled	88	95	183
Minimally Skilled	245	242	487
Total	403	411	814

Source: Deloitte Analysis

Some of the key trends observed on the supply side include

- Proportion of incremental supply of minimally skilled manpower is 60%, compared to 18% of skilled and 22% of semi-skilled manpower (2012-22)
- Out of a total 590 colleges in the state, 10 (1.7%) are in the district of Gariaband, which is lower in comparison to the share of population.
- Gariaband has 4 out of 180 ITIs in the state and 57 VTPs which is lower in comparison to the population share.
- Impact of Migration is expected to be inward and accounts to around 1.6% of the supply. According to primary interactions, inward migration is both in minimally skilled and semi-skilled jobs in building & construction and manufacturing sectors

- ♦ *The trend of migration is expected to be inward from other states and districts across all skill levels and would account to nearly 1.6% of the supply.*

Incremental Demand Supply Gap

During the period 2012-22, the incremental demand supply gap of the district (across all sectors mentioned above) is expected to be a surplus of 0.25 lakh people. There is assessed to be excess supply across all the skill segments.

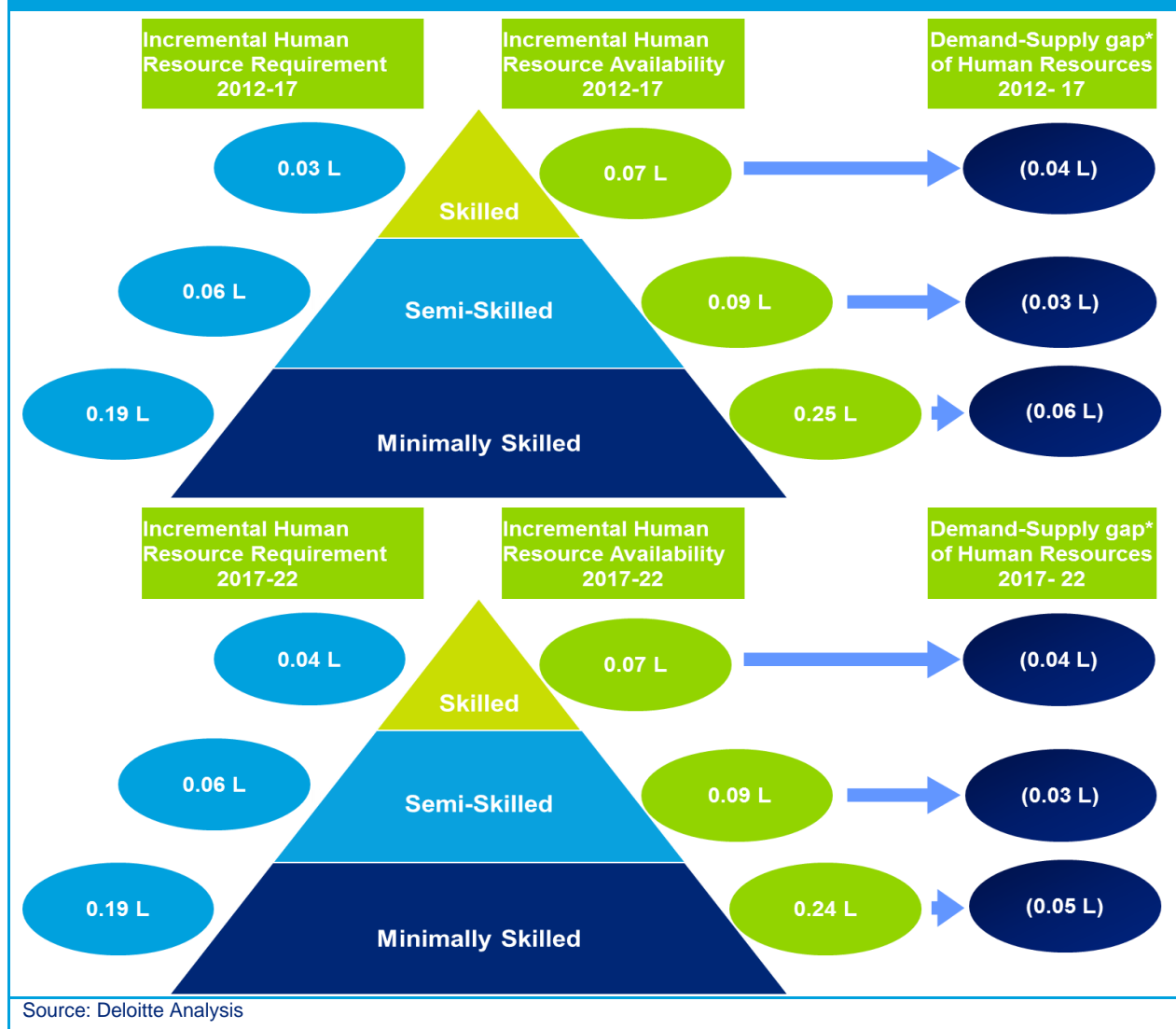
This means the rate of creation of employment in the district has to be augmented with suitable government initiatives in order to absorb the supply of workforce projected to enter the job market. This means the rate of creation of employment in the district has to be further increased with suitable government initiatives in order to absorb the huge supply of workforce expected to enter the job market.

Table 196: Projected Demand Supply gap ('00s) by skill levels in Gariaband

		2012-17				2017-22			
#	District Skill Gap	Skilled	Semi-skilled	Min. Skilled	Total	Skilled	Semi-skilled	Min. Skilled	Total
1	Incremental HR Requirement (Demand)	32	57	186	275	38	64	190	291
2	Incremental HR Availability(Supply)	70	88	245	403	74	95	242	411
3	Demand-Supply Gap	(37)	(31)	(59)	(128)	(36)	(31)	(52)	(120)
Overall Demand-Supply Gap				(248)					
Source: Deloitte Analysis									

During the period 2012-22, the incremental manpower demand supply gap of the district (across all sectors mentioned above) is expected to be surplus of 0.25 lakhs with the excess supply across all skill segments as shown in the following figure.

Figure 217: Incremental Demand-Supply Gap (in lakhs), Gariaband



Some of the key trends observed on the demand-supply gap include

- ♦ The composition of the human resource demand supply gap over the two different time periods i.e. 2012-17 and 2017-22 is anticipated to remain the same.
- ♦ The excess supply in the skilled segment is expected to continue over the decade. This is in line with low demand of skilled labour in the district. Due to the excess supply, skilled workers may need to seek job opportunities outside the district.
- ♦ The trend of excess supply is likely to continue in the semi-skilled segment across both the periods.
- ♦ However the excess supply of minimally skilled workers is decreasing indicating more conversion into semi-skilled category.

- ♦ *Primary interactions have raised employability & deficit in specific jobs/ skills as concerns despite high overall supply in skilled and semi-skilled levels. These have been given in the qualitative skill gaps section below.*

Qualitative Skill Gaps

The qualitative skill gaps that were highlighted during our primary interactions with industry at Gariaband are given in the table below.

Table 197: Qualitative Skill Gaps

Sector	Level	Skill Gap
Agriculture	Tractor operator and mechanics/ Electricians/ Mechanics for repair & maintenance of agricultural tools & implements	<ul style="list-style-type: none"> ♦ Sufficient training to address tool & equipment failures like motor pump failure, gear damage, tyre puncture etc.
Trade (Retail + Wholesale)	Store/Department Manager	<ul style="list-style-type: none"> ♦ Understanding of cross functional activities in the store esp. logistics, marketing and merchandising ♦ People management skills ♦ Vendor Management
	Billing Associate/ Accountants/ Computer operators	<ul style="list-style-type: none"> ♦ Knowledge of transaction processing software and cash management ♦ Knowledge of tally/accounting practice
	Sales/Customer Service personnel	<ul style="list-style-type: none"> ♦ Product specific knowledge ♦ Customer service and Inter personal skills
BFSI	Business Facilitator / Correspondent Direct Selling Agents	<ul style="list-style-type: none"> ♦ Correct knowledge of products; ♦ Customer need assessment and Advisory Skills
	Financial Advisors	<ul style="list-style-type: none"> ♦ Communication and Selling Skills ♦ Customer service and Inter personal skills
Communication	Amplifier equipment repair Co-axial cable related lineman Fibre optical line technician	<ul style="list-style-type: none"> ♦ Domain/ Subject Knowledge and correct application ♦ Product specific knowledge ♦ Customer service and Interpersonal skills
	Network maintenance Tower Repair & Maintenance Sales personnel (in both handsets and service companies)	<ul style="list-style-type: none"> ♦ Knowledge of technology and equipment being used ♦ Ability to understand & follow instructions/ manuals ♦ Understanding customer requirement; Product knowledge ♦ Negotiation, communication and selling skills ♦ Customer service and Inter personal skills

4.11.8 Recommendations

Future Growth Opportunities in Gariaband

In the context of the current economic profile and proposed investments of the district, the demand for human resources at various skill levels has been analyzed. The observations have been augmented by primary interactions with industry & industry association representatives in the district and government officials at the state and district level. Based on our analysis and considering factors like high growth and employment potential, priority sector for the state government, investment trends, etc., the following sectors/industries have been identified with future growth opportunities for employment and subsequently, skill development in Gariaband.

Table 198: Key Growth Sectors - Gariaband

#	Priority Sectors	Growth opportunities in skills development and employment
1.	Agriculture	<ul style="list-style-type: none"> Agriculture currently provides employment to around 81% of the workers in the district. It is anticipated to be the residual & largest incremental employer in the district accounting for around 67.2% of the total incremental demand for manpower. Cultivation of paddy along with the collection of minor forest produce from the forests is expected to employ a significant section of the workforce.
2.	Trade (Retail + Wholesale)	<ul style="list-style-type: none"> Trade (Wholesale + Retail) is estimated to grow at around 12% in the period 2012-22. It is one of the largest employers of the district, contributing to about 10.5% of the total employment in the district. It is expected to provide incremental employment to more than 0.04 lakh people. Due to the booming manufacturing industry, especially steel and power as well as growth in building and construction activities along with greater trade of raw materials would result in increasing manpower demand in this sector.
3.	Banking/ Insurance/ Finance	<ul style="list-style-type: none"> BFSI was one of the fastest growing sectors growing at a CAGR of 20% (2005-09). It is estimated to employ 3.3% of the incremental demand in the district.
4.	Communication	<ul style="list-style-type: none"> Communication was one of the fastest growing sectors growing at a CAGR of 17% (2005-09). It is estimated to employ 3.3% of the incremental demand in the district.

Considering the economic and skill landscape of Gariaband, the table below indicates the priority areas of focus for key stakeholders involved. These observations have been mainly derived from the growth opportunities identified above and through primary interactions with industry and industry association representatives in the district along with inputs from the students, training institutes and government.

Table 199: Key Recommendations for Stakeholders - Gariaband

Stakeholder	Priority Areas
NSDC	<p>NSDC can focus the efforts of its training partners and prioritize its funding in the following key sectors identified in the district, viz.</p> <ul style="list-style-type: none"> Agriculture Trade (Wholesale + Retail) BFSI Communication
Private training providers	<ul style="list-style-type: none"> There is a need for courses in Agriculture sector owing to the greater demand for more workers in the sector. Additionally, courses in Trade (wholesale + retail), BFSI and Communication can also be explored. The training institutes should introduce/ substantiate multi-disciplinary courses in sectors such as BFSI, trade etc. instead of focusing on single specialization.

Stakeholder	Priority Areas
	<ul style="list-style-type: none"> • The skill development institutes in the district should collaborate with the Directorate of Agriculture, Directorate of Horticulture, Directorate of Animal Husbandry and Directorate of Fisheries for providing training in Agriculture and Allied sectors. • For providing training in the BFSI sector, possible collaboration with the Directorate of Institutional Finance may be explored. Additionally, eminent members of the State Level Banker's Committee and Lead Bank, Gariaband may be invited as guest lecturers. • Moreover, the skill development institutes should also concentrate on the design and delivery of bridge courses with a focus on communication, language, basic IT and soft skills to make students job ready as highlighted in youth survey as well. • In order to promote self-employment in the district, entrepreneurship development courses in the high growth sectors identified may be introduced.
Government	<ul style="list-style-type: none"> • The Government should promote and endorse vocational education as a practical alternative to formal education with emphasis on providing job ready courses. • The Government should incentivize vocational education and subsequent certification for the workforce in the district in terms of wage revision. • The Government should encourage more vocational training institutes on public private partnership mode in the district. • Youth interactions indicated need for better working conditions and compensation for employees in the district. • Soft Skills may be provided at high school level in government schools. • Focus on training or providing extension support services in agricultural products processing, forestry and animal husbandry (including dairy & poultry) as the majority of for the workers are dependent on Agriculture.
Industry	<ul style="list-style-type: none"> • More industry interactions could be initiated in the Agriculture, Trade (Wholesale + Retail) and BFSI sectors in the district. • Industry players should participate in relevant SSCs to provide inputs on the qualification requirement, course component etc. especially in the high growth sectors identified in the district. • Industry players should also participate in improving upon the current course curriculum as observed in the youth survey where around 91% of the respondents quoted that the current education/training received by them is not in alignment with the potential job requirements. • The major private players as well as public sector enterprises in the state should undertake and encourage vocational training as part of their CSR activities either by partnering with the Skill Development Institutes for training or providing funds/resources for the same.

4.12 Janjgir-Champa

4.12.1 District Profile

Janjgir-Champa district, located in the central part of Chhattisgarh came into existence on 25th May, 1998.

The district is a part of Bilaspur division in the north and falls under the fertile Chhattisgarh Plains agro climatic zone. It is surrounded by Korba in north, Raigarh in the east, Baloda Bazar on the south and Bilaspur in the west. It extends over an area of 3853 sq. Km, which is 2.9% of the total state area. The district is divided into 10 tehsils for its administrative functioning viz. Janjgir, Akaltara, Baloda, Nawagarh, Champa, Sakti, Pamgarh, Dabhra, Malkharoda and Jaijaipur. Akaltara and Baloda are the new tehsils created after Census 2001. Janjgir–Champa district is divided into five subdivisions: Champa, Dabhra, Janjgir, Pamgarh, and Sakti. Janjgir is the administrative headquarter of the district. The district has a total of 15 statutory towns, 892 Villages (881 inhabitant villages and 11 un-inhabitant villages), 4 Municipality & 11 Nagar Panchayats²⁶¹. The district does not have any Census Town & Municipal Corporation.

Map 13: Janjgir-Champa District



Forests account for just 4.02% of the total geographical area of the district. The forest cover of Janjgir-Champa is significantly lower than the state average & comprises of very dense forest (2.6%), moderately dense forest (16.8%) and open forest (80.6%)²⁶². The entire district falls under Mahanadi Basin where Mahanadi forms the southern boundary of the district. Hasdeo the branch of Mahanadi bisects the district into eastern & western parts. The normal rainfall is 1478 mm in the district²⁶³. The Hasdeobango project in the district is proposed to cover 3/4th area of the district for irrigation and is considered as life supporting canal for the district Janjgir-Champa²⁶⁴.

Table 200: Janjgir-Champa District Profile

#	Indicator	Janjgir-Champa	Chhattisgarh	% Share
1.	Area, in sq.km.	3,853	135,190	2.9
2.	No. of sub-districts	10	149	6.7
3.	No. of inhabited villages	881	20126	4.4
4.	No. of households (lakhs)	3.65	56.51	6.5
5.	Average Land holding size (Ha)	0.92	1.17	-
6.	Forest area cover	4.02%	41.18%	-

Source: Census 2011; Directorate of Economics and Statistics- Govt. of Chhattisgarh; State of Forest Report 2011-Forest survey of India

²⁶¹ Census 2011

²⁶² State of Forest Report 2011-Forest survey of India

²⁶³ janjgir-champa.nic.in

²⁶⁴ ibid.

4.12.2 Demography

As per Census 2011, Janjgir-Champa has a total population of 16, 19,707 with the district sharing approximately 6.3% of the state's population. Janjgir-Champa is one of the most highly populated districts of Chhattisgarh. As of 2011, Janjgir-Champa ranks 4th amongst all the districts of Chhattisgarh in terms of population. About 86.1% of the total population resides in rural areas with just 13.9% of them being urban residents. The district rural population constitutes around 7% of the total rural population of the state.

Tehsils like Nawagarh (119.97%) and Pamgarh (90.08%) are amongst the select tehsils in Chhattisgarh registering one of the highest urban population growth rates. On the other hand, Akaltara tehsil in Janjgir-Champa (11.53%) is amongst the lowest urban population (percentage) growth tehsils in the state.

The decadal population growth in Janjgir-Champa during 2001-2011 was 22.94%, which is slightly higher than the population growth of 18.67% during the period 1991-2001. The population of Janjgir-Champa has recorded one of the highest population growths in Census 2011 and ranks 4th in Chhattisgarh.

About 58.6% of the district's population is in the working age population group. The population density of the district has improved over the decade with around 420 persons present per sq. km. in Census 2011 compared to 342 persons per sq. km. in 2001. The population density of the district is considerably higher than the state average (189). The district registered decrease in sex ratio over the decade with around 986 females present per 1000 male compared to the 2001 census figure of 998. The per capita income in the district is lower than the state average.

Table 201: Demographic Indicators of Janjgir-Champa

Demography	Janjgir-Champa	Chhattisgarh
Population (2011)	16,19,707	2,55,40,196
Population 15-24 (2011)	3,34,852	49,89,339
Decadal Population Growth Rate (2001-11)	22.94%	22.6%
Population density per sq. km (2011)	420	189
Percentage of Urban Population (2011)	13.90%	23.2%
Percentage of SC population (2011)	24.6%	12.8%
Percentage of ST population (2011)	11.6%	30.6%
Average household size	4.44	4.54
Sex Ratio (2011)	986	991
Working age population (15-59) as a percentage of total population, %	58.6%	62%
Per Capita Income (2009)	Rs. 16,653 ²⁶⁵	Rs.28,263

Source: Census of India 2011; Directorate of Economics and Statistics- Govt. of Chhattisgarh; Deloitte Analysis

Key Observations:

- Janjgir-Champa is one of the highly populated districts of Chhattisgarh. As of 2011, Janjgir-Champa ranks 4 amongst all 27 districts of Chhattisgarh in terms of population.
- The district has predominantly a rural based demographic constitution with about 86.1% of the total population residing in rural areas and 13.9% of them being urban residents.

²⁶⁵ At 2004-05 constant prices, Deloitte Analysis

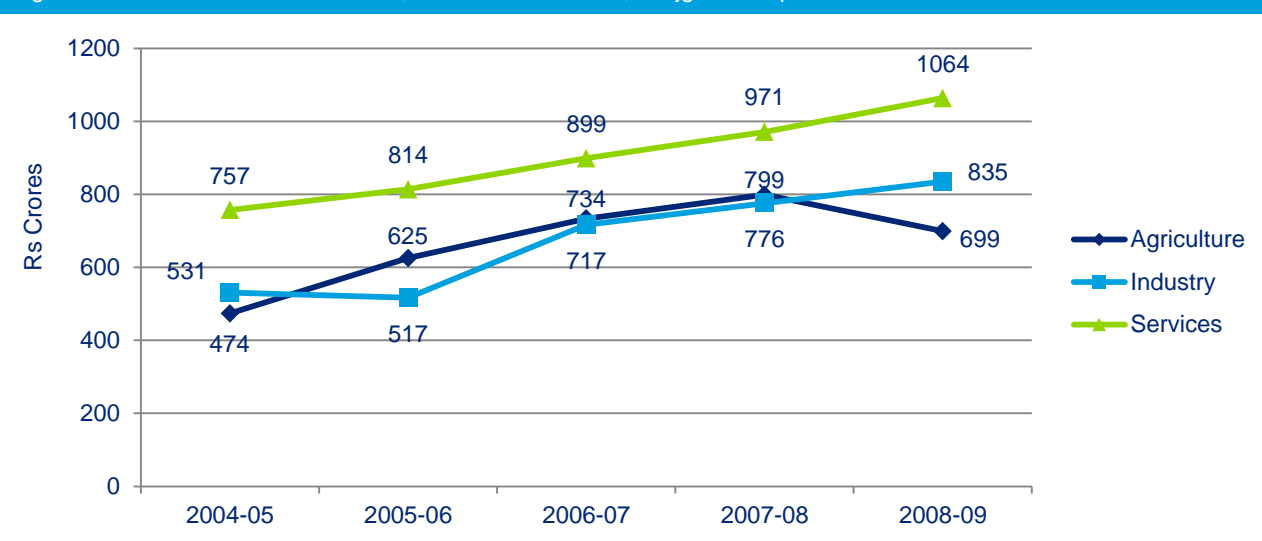
4.12.3 Economic Profile

The economy of Janjgir-Champa has registered a CAGR of about 10.2% (estimated at constant price, 2004-05) between 2004-05 and 2008-09 and grown from Rs. 1,761.20 cr to Rs. 2597.81 cr. The district recorded a higher economic growth rate compared to state average (9.6%) over the period 2005-09. In 2008-09, Janjgir-Champa district contributed 3.8% in the state economic activity. At Rs 2597.81 cr., Janjgir-Champa ranked 8th in Chhattisgarh in terms of economic contribution amongst all the districts of Chhattisgarh.

The economy of Janjgir-Champa district is pre-dominantly Services sector based with its share in GDDP at 40.9% in 2008-09. This is followed by Industry sector which contributes 32.1% in the district economic profile and Agriculture sector contributing 26.9%.

In terms of sector level contribution to GDDP, the Services sector's contribution has declined from 43.0% in 2004-05 to 40.9% in 2008-09, as indicated in the figure below. However, the absolute contribution of Services sector in the district's economic profile increased consistently. The Agriculture sector contribution remained almost constant during the period. The Industry sector in the district also registered a marginal improvement between the same time periods and increased from 30.1% to 32.1%. The sector-wise GDDP growth and distribution from 2005-09 is provided below.

Figure 218: Sectoral Share of GDDP, 2004-05 to 2008-09, Janjgir-Champa



Source: Directorate of Economics and Statistics, Govt. of Chhattisgarh, 2004-05 base prices

Agriculture Sector

The contribution of Agriculture sector (agriculture, forestry & logging and fishing) to the GDDP was 26.9% in 2008-09. The sector grew at a CAGR of 10.2% between 2004-05 & 2008-09 with the overall contribution of the sector remaining the same in the district. Agriculture is the chief contributor in the total output of the agriculture sector in the district contributing around 82% in the year 2008-09 followed by forestry & logging (9.8%), and fishing (7.6%).

Janjgir–Champa is one of the leading producers of food grains in the state. As of 2011, the gross cropped area in Janjgir-Champa is 2.97 lakh ha while the net area sown of crops in the district is 2.59 lakh ha²⁶⁶. Around 72% of the Gross cropped area in Janjgir-Champa is irrigated. Moreover, under the Hasdeobango project approximately 3/4th area of the district is proposed to be covered for irrigation. Paddy, Kodo, Arhar, Wheat and Lakh (Tiwra) are the chief crops grown in the district. Paddy is the chief crop in the state with approximately 2.55 lakh ha sown under it in 2011²⁶⁷. In terms of horticultural produce, Mango, Guava, Banana and Papaya etc. are grown in the district. Tomato, Lady Finger and Potato are the chief vegetables grown in the district. In terms of availability of livestock, the district has a total of 7.49 lakh livestock with a livestock density of 167 per sq. km²⁶⁸. The total water spread area under fisheries is around 0.1 lakh hectares registering an increment of around 3 hectares over last year. The district registered the total fish production of around 0.3 tonnes in 2010-11²⁶⁹. The total production of milk, eggs & meat in the district in 2010-11 is summarized below:

Table 202: Total Milk, Eggs & Meat Production in Janjgir-Champa (2010-11)

Particulars	Production	Value (Rs. Lakh)
Milk Production (Hybrid Cow), '000 MT	4.4	1015.0
Milk Production (Indigenous Cow), '000 MT	33.8	7784.4
Milk Production (Buffalo-Indigenous), '000 MT	18.6	4374.0
Egg Production, Lakh	117.7	425.1
Meat Production (Goats), '000 Kg	205.35	471.43
Meat Production (Sheep), '000 Kg	52.91	87.94
Meat Production (Pigs), '000 Kg	7.46	7.09
Meat Production (Poultry), '000 Kg	299.10	269.19

Source: Statistical Pocket Book of Chhattisgarh-2010-11, Directorate of Economics & Statistics

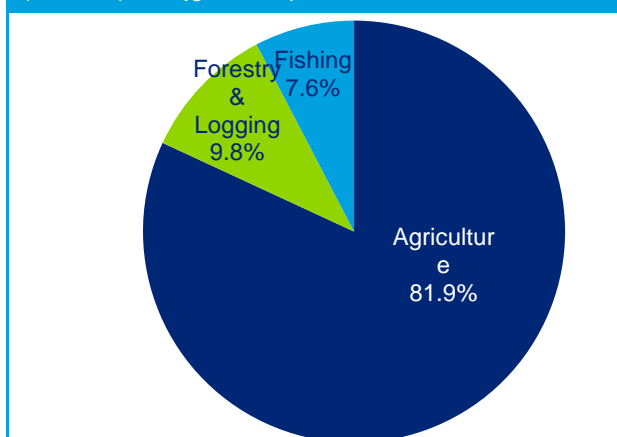
²⁶⁶ Statistical Pocket Book of Chhattisgarh-2010-11, Directorate of Economics & Statistics

²⁶⁷ ibid.

²⁶⁸ Statistical Pocket Book of Chhattisgarh-2010-11, Directorate of Economics & Statistics

²⁶⁹ ibid.

Figure 219: Sub-sectoral break-up of Agriculture sector (2008-09), Janjgir-Champa



Source: Directorate of Economics and Statistics, Govt of Chhattisgarh

Forestry and logging activities also play an important role in the district economy. Janjgir-Champa falls under Bilaspur forest circle and the important non nationalized species available in the district are Palash, Imli and Chironjee. The important forest produce available in the district are Tendu Patta, Sal seed, Harra, Mahua & Sagon.

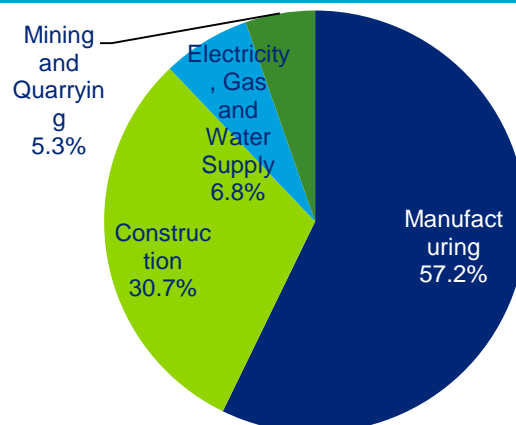
Industry Sector

The Industry sector (mining & quarrying, manufacturing, construction, electricity, gas and water supply) contributed 32.1% to the GDDP in 2008-09. The overall contribution of the sector in the district economic profile increased from 30.1% in 2004-05 to 32.1% in 2008-09.

Manufacturing sector is the major contributor within the industry sector accounting for a sectoral share of 57.2% followed by construction (30.7%), electricity, gas & water supply (6.8%) and mining & quarrying (5.3%). Manufacturing sector contributed 57.2% to the industry sector in 2009. In terms of industrial presence, Janjgir-Champa has a few Iron, Cement and Paper industries. Handloom is also one of the economic activities undertaken in Janjgir-Champa with the district being a hub for Kosa cloth production in Chhattisgarh along with Raigarh. It is also becoming as a major hub for power with a total 52 power plants being opened in the district. Wardha Power Plant (6 x 600 MW) at Akaltara is one of the major thermal power plants of the district

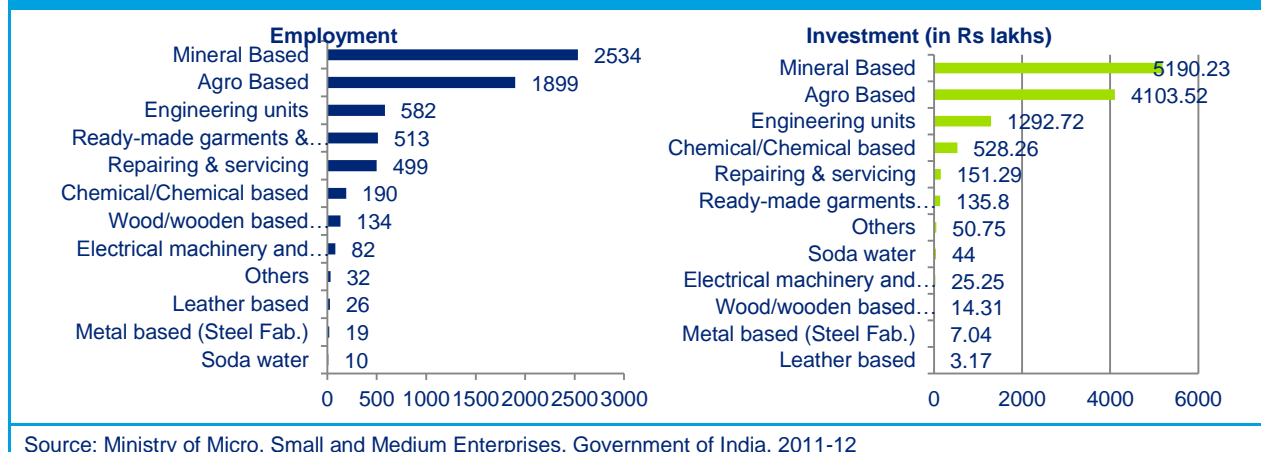
As per the Industrial profile of Janjgir-Champa district by MSME-DI, Raipur, there are a total of 1296 registered industrial units in the district. The key micro and small industries in the sector in terms of manpower employed are mineral based units, agro based units, engineering units, ready-made garments & embroidery units and repairing and servicing entities. The investment in micro and small enterprises in the district is summarized as well in the figure provided below. As evident from the figure, the key micro and small industries in the district in terms of investment (Rs. Lakhs) include mineral based units, agro based units, engineering units, chemical/chemical based units and repairing and servicing entities.

Figure 220: Sub-sectoral break-up of Industry sector (2008-09), Janjgir-Champa



Source: Directorate of Economics and Statistics, Govt. of Chhattisgarh

Figure 221: Employment and Investment (Rs. Lakhs) in units of micro and small enterprises, Janjgir-Champa



Source: Ministry of Micro, Small and Medium Enterprises, Government of India, 2011-12

Janjgir-Champa has an Industrial Area at Champa and Kapan. Champa Industrial Area is developed over an area of 4.721 ha of land with 21 plots established²⁷⁰. 19 units are already in production in the Industrial Area. In an effort to boost the industrial profile of the district, CSIDC is developing an Integrated Infrastructure Development Centre (IIDC) for Small Scale Industries at Kapan (Janjgir-Champa - 200 kms. from Raipur).

The total budgeted value for ongoing building and construction activities (building and roadwork) in Janjgir-Champa for the year 2013-14 is allocated at Rs. 481 crores²⁷¹. In terms of availability of minerals, Dolomite and Limestone are available in the district with incidences of Stone & Murram also reported. The total mineral revenue receipt of the district in 2012-13 was around Rs. 3902 lakhs (major minerals: Rs. 1505.58 lakhs, minor minerals: Rs. 2370.98 lakhs & others Rs. 25.43 lakhs).

Table 203: Mineral Revenue Receipt of Key Minerals in Janjgir-Champa (2012-13)

S#	Mineral	Revenue Receipt (Rs. Lakhs)
1	Limestone	Major: 1171.11 Minor: 2310.95
2	Dolomite (Major)	333.82
3	Other Major Minerals	0.65
4	Murram (Minor)	13.79

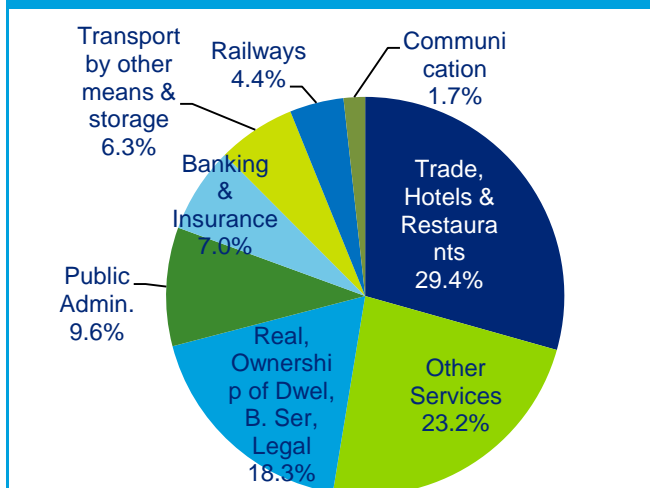
Source: Directorate of Geology & Mining, Chhattisgarh

Services Sector

The Services sector contributed about 40.9% to the district economic profile in the year 2008-09. The sector grew at a CAGR of around 8.9% between the period 2004-05 & 2008-09. The key contributor to the sector was Trade, Hotels & Restaurants contributing approximately 29.4% to the district Services sector. Other Services (23.2%), Real Estate (18.3%), Public Administration (9.6%) and Banking and Insurance (7.0%) are the other major contributors to the services profile of the district in 2009.

The major site seeing places of Janjgir-Champa includes Vishnu Mandir (Janjgir), Adbhar - Devi Temple (Malkharoda), Madanpurgarh - Devi Mandir (Janjgir), Pithampur - Shiv Mandir (Janjgir), Shivarinarayan Temple (Nawagarh), Chandrahasini Temple (Dabhra), Laxmaneshwar Temple (Pamgarh), Damudhara (Sakti), Dewar Ghat (Pamgarh), Kanhar (Janjgir), Turridham -

Figure 222: Sub-sectoral break-up of Services sector (2008-09), Janjgir-Champa



Source: Directorate of Economics and Statistics- Govt. of Chhattisgarh

²⁷⁰ Brief Industrial Profile of Janjgir-Champa District, MSME-DI, Raipur

²⁷¹ Chhattisgarh Public Works Department

Shiv Temple (Janjgir) And Ghatadai (Janjgir)²⁷². The district is a major hub for agricultural trade.

The district headquarter Janjgir is situated on the Howrah—Mumbai main line and is connected with Rail Line of South-Eastern Railway. It is 152 kms from the state capital Raipur. Champa, Naila and Akaltara are the main railway stations of the district. In terms of road connectivity, the district had 981.2 kms of main district highway, 333.0 kms of other district & rural roads and around 1468 kms of kachha road in 2010-11²⁷³.

Key Observations:

- ♦ The economy of Janjgir-Champa district is pre-dominantly Services sector based with the sectoral share in GDDP being 40.9% in 2008-09. This is followed by Industry sector which contributes 32.1% in the district economic profile and Agriculture sector contributing 26.9%.
- ♦ In 2009, agriculture occupied the highest share in district economy at 22.0% followed by manufacturing (18.4%) and trade, hotels and restaurants (12.0%). These sectors together accounted for more than 50% of the total economic activity of Janjgir-Champa in 2009.

²⁷² <http://janjgir-champa.nic.in/files/touristplace.htm>

²⁷³ Brief Industrial Profile of Janjgir-Champa district, MSME-DI, Raipur

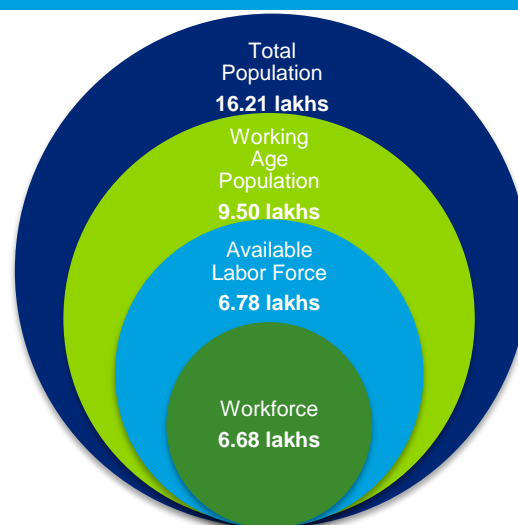
4.12.4 Employment Profile

With a total population of 16.21 lakhs in the year 2011, Janjgir-Champa accounts for nearly 6.3% of the state's population.

The adjacent figure depicts the estimated workforce in Janjgir-Champa in the context of total population of the district. Out of the total population of 16.21 lakhs, the working age population (between 15-59 age group) is estimated at around 9.50 lakhs or nearly 58.63%.

Based on the labor force participation rate and the worker participation rate estimates for the state, the available labor force is estimated to be 6.78 lakhs, and the workforce is estimated at 6.68 lakhs or nearly 70% of the working age population.

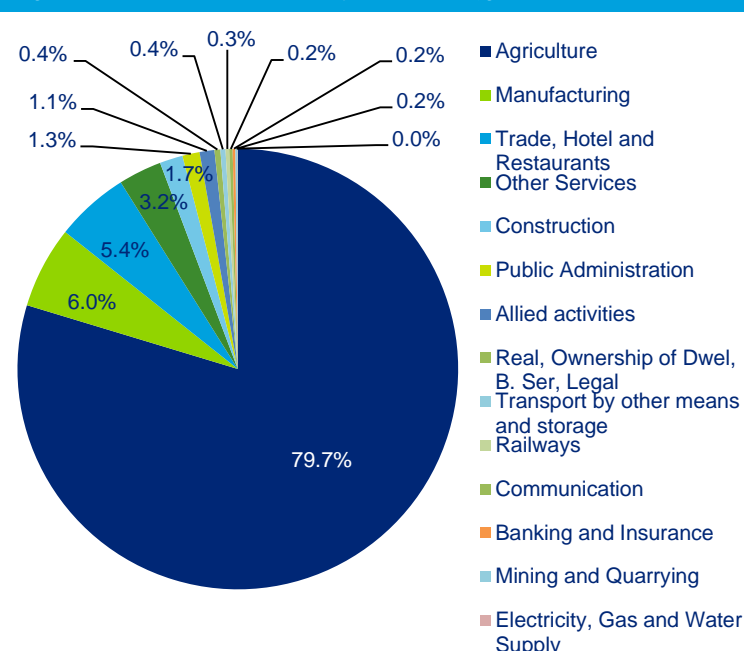
Figure 223: Total Workforce in Janjgir-Champa (2011)



Source: Census 2011 and Deloitte Analysis

Agriculture sector was the highest employer in the district in 2011 employing around 80.8% of the total available workforce though the sectoral contribution in the district economic profile during the same period was least at around 28.4% of the Gross District Domestic Product.

Figure 224: Sector wise employment in Janjgir-Champa (2011)



Source: Census 2011 and Deloitte Analysis

district followed by manufacturing (6.0%), trade, hotels and restaurants (5.4%), other services (3.2%) and construction (1.7%). The top five sectors in the district in terms of employment account for more than 96% of the total employment of the available workforce in Janjgir-Champa in 2011.

While the Services sector contributed around 36.2% to the GDDP in the year 2011, it employed 11.4% of the total available workforce. Services sector was the 2nd highest employer in the district in 2011 while in terms of economic activity it was the chief contributor to the GDDP.

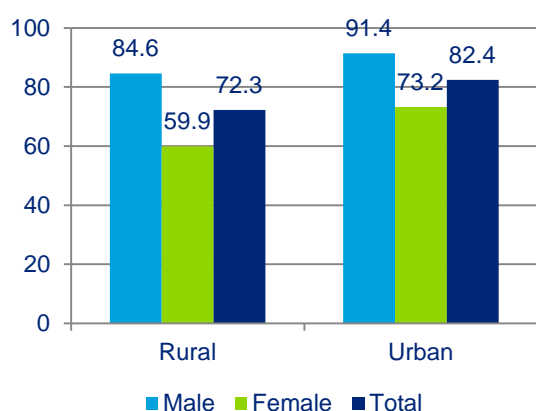
The Industry sector contributed around 35.4% to the GDDP in 2011 and employed approximately 7.9% of the total available workforce thereby assuming 3rd position in Janjgir-Champa in terms of employment share.

The adjoining figure summarizes the sector-wise employment share in Janjgir-Champa for the year 2011. Agriculture accounted for around 79.7% of the total employment in the

4.12.5 Education Infrastructure

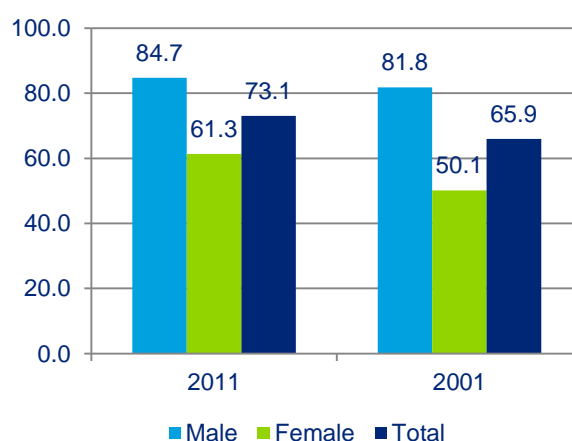
The literacy rate in Janjgir-Champa has improved over the decade from 65.94% in 2001 to 73.07% in 2011. The literacy rate of the district is higher than the state's literacy rate of 70.3% in 2011 and is comparable to the all-India literacy rate of 73%. In 2011, male and female literacy rates stood at 84.72% and 61.31% respectively, both figures showing improvement compared to the 2001 figures of 81.82% and 50.14% respectively. Janjgir-Champa is one amongst the districts in Chhattisgarh registering highest rural literacy rate and ranks 4th in the state in terms of rural literacy rate. However, there still exists a significant disparity between the male-female and urban-rural literacy rates. The male-female gap in rural literacy rate decreased from 32.59% in Census 2001 to 24.76% in Census 2011. Similarly, the male-female gap in urban literacy rate decreased from 23.63% in Census 2001 to 18.26% in Census 2011.

Figure 225: Literacy rate 2011 (by residence), Janjgir-Champa



Source: Census of India 2011

Figure 226: Literacy rate (by Gender), Janjgir-Champa



Source: Census of India, 2001 and 2011

School Education

Janjgir-Champa has 1727 primary schools, 921 upper primary schools, 180 secondary schools and 322 higher secondary schools. Net enrolment ratio (NER) at the upper primary level (80.8%) is much higher compared to the state NER of 67.8%.

Table 204: Status of school education infrastructure in Janjgir-Champa, 2013

#	Educational Statistics	Units in Janjgir-Champa	Units in Chhattisgarh	% Share of District in State
1	Primary School	1727	35588	4.9%
2	Upper Primary School	921	16442	5.6%
3	Secondary School	180	2632	6.8%
4	Higher Secondary School	322	3548	9.1%
5	NER (Primary) (2010-11)	100%	98.0% ²⁷⁴	-
6	NER (Upper Primary) (2010-11)	80.8 %	67.8%	-

Source: DISE 2012-13

²⁷⁴ Data is for 2008-09

Vocational Education

For vocational training, Janjgir-Champa has a total of 16 ITIs in the district, of which 9 are Government Industrial Training Institutes and 7 are Private Industrial Training Institutes. The total capacity of the ITIs in the district is 1552. The capacity of Govt. ITIs is 828 and that of Private ITIs is 724. Electrician and Computer Operator and Programming Assistant courses have the maximum units affiliated among ITIs.

The number of courses available in ITIs and their capacity are listed in the table below.

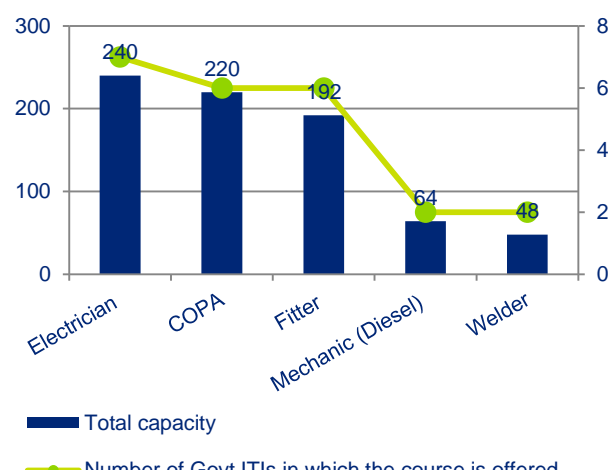
Table 205: ITIs in Janjgir-Champa and their capacity

Name of ITI	Number of courses offered	Total Units affiliated	Total Capacity
Government Industrial Training Institute, Saragaon, Dist.-Janjgir	3	5	80
Government Industrial Training Institute, Shakti, Dist.-Janjgir	3	6	104
Government Industrial Training Institute, Malkharoda, Dist.-Janjgir	3	6	104
Government Industrial Training Institute, Dabhra , Dist.-Janjgir	3	5	80
Government ITI, Kharod	2	3	48
Government ITI, Pamgarh	1	1	20
Government ITI Akaltara	3	6	104
Government ITI Hasaud	5	9	144
Government ITI Janjgir	5	9	144
Leprosy Mission Chhattisgarh V. Trg. ITC	3	4	68
Jagrani Devi ITC, Darrabhata	1	4	64
Yash ITC	3	8	144
Jagrani Devi ITC, Janjgir	2	6	104
D.B. M. Private ITI	1	2	40
Jagrani Devi ITC, Baradwar Sakti	3	10	176
Agarsen Industrial Training Centre, Champa	1	8	128
Total	8*	92	1552
Source: Department of Higher and Technical Education, Chhattisgarh; Deloitte Analysis			
*Total number of different courses offered by ITI's in Janjgir-Champa			

The capacity of the ITI's & Private ITI's combined in Janjgir-Champa is highest in the trade of Electrician (656) followed by Computer Operator and Programming Assistant (440), Fitter (224), Diesel Mechanic (80), Welder – Gas & Electric (48), Health Sanitary Inspector (40), Cutting and Tailoring renamed as Cutting and Sewing (32) and Driver Cum Mechanic - Light Motor Vehicle (32).

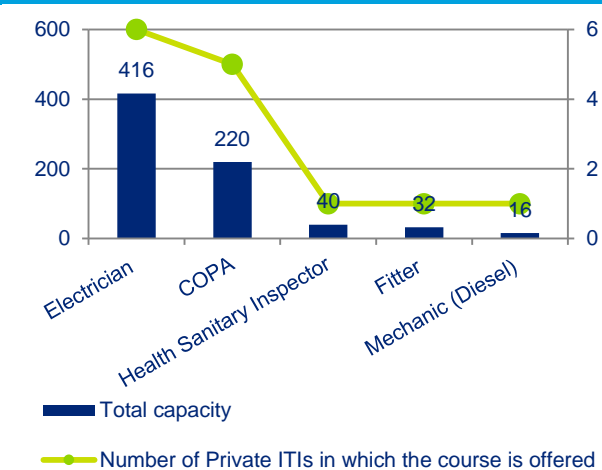
Further break-up of the major courses offered across Government ITI & Private ITI along with their capacity in Janjgir-Champa is given in the figure below:

Figure 227: Major courses offered in Govt. ITIs and their capacity in Janjgir-Champa



Source: Department of Higher and Technical Education, Chhattisgarh; Deloitte Analysis

Figure 228: Courses offered in Private ITIs and their capacity in Janjgir-Champa



Source: Department of Higher and Technical Education, Chhattisgarh; Deloitte Analysis

According to Chhattisgarh State Skill Development Mission Website, as of 12th March 2014, Janjgir-Champa has 82 enumerated **Vocational Training Providers (VTPs)** under which there are 2548 registered beneficiaries. The following table highlights the courses offered in vocational education, which currently meet requirements of about 11 sectors.

Table 206: Courses offered in vocational education, Janjgir-Champa

Sector	ITI trades & Units affiliated	Courses Offered by VTPs
Auto and auto components Electronics and IT hardware	Electrician(41), Fitter(14), Mechanic(5), Welder(4),	Electrical, Fitter, Electronics, Fabrication, Automotive Repairs, Diesel Mechanic, Industrial electrical
IT and ITES Tourism, hospitality and travel Organized retail Banking, financial services and insurance	Computer Operator and Programming Assistant(22), Driver cum Mechanic(2)	ICT, Soft skill, Banking & Accounting
Textiles and clothing	Cutting and Tailoring (2)	Textile sector, Garment making, Toy making, Sericulture, Textile silk
Building, construction and real estate Construction material and building hardware		Construction
Healthcare Services Education and skill development Unorganized sector (particular reference to agriculture, security, plumbing, domestic worker, foundry, etc.)	Health Sanitary Inspector (2)	Beauty culture and hair dressing, Home decoration-Art Jewellery, Beauty Parlor, Wood Work

Source: CSSDA

The following table highlights the NSDC partners present in Janjgir-Champa as of January 2014 and the courses offered by them.

Table 207: NSDC partners present in Janjgir-Champa

Name of Partner	Sectors in which course is offered	Courses offered
AISECT	IT/Software	<ul style="list-style-type: none"> ♦ Diploma in Computer Applications (DCA) ♦ Post Graduate Diploma in Computer Applications (PGDCA) ♦ Diploma in Computer Programming and Applications (DCPA)
	ITES-BPO	<ul style="list-style-type: none"> ♦ Diploma in Computer Applications (DCA) ♦ Post Graduate Diploma in Computer Applications (PGDCA) ♦ Diploma in Computer Programming and Applications (DCPA)
	Electronics & IT Hardware	<ul style="list-style-type: none"> ♦ Advanced Diploma In Computer Hardware and Networking
Source: NSDC		

Higher Education

Janjgir-Champa has 39 colleges in the district out of the total 590 colleges in the state indicating the district's share in the higher education space of the state at 6.6%. This is comparable to the district's share of population to the state (6.4%). However, the district does not have any technical, management or medical college for its students. Moreover, out of the 39 colleges present in the district, 27 offer general degree courses. It also has a Government Polytechnic Institute. The district also has an Indian Institute of Handloom Technology (IIHT) functioning w.e.f. 1st July, 2006 under State Sector with an objective to provide technically qualified manpower, primarily to meet the requirement of the Handloom Sector. It offers 3 year course of Diploma in Handloom & Textile Technology.

Table 208: Number and Capacity of Higher Education infrastructure in Janjgir-Champa

#	Colleges	Number	Estimated Capacity*
1	Arts, Science and Commerce	27	-
2	Teacher Education	10	-
3	Agriculture	1	48
4	Nursing	1	30
	TOTAL	39	-
*Source: University/College websites			

Key Observations:

- ♦ There are a total 16 ITIs and 82 VTPs present in the district.
- ♦ With 39 colleges in the district, the share of Janjgir-Champa in the higher education space of the state is 6.6%.

4.12.6 Youth Aspirations

In the process of capturing the aspirations of the youth population in Janjgir-Champa, Focused Group Discussions (FGD's) were held with youth of different age groups from educational institutions as well as residing in rural areas to understand their chief concerns, areas of interest and future dreams and goals. The youth survey in Janjgir-Champa was conducted at the Learning Computer Centre, Kera Road; Bhagwati Devi Shikshan Samiti, NAC-MIT, Computer Zone link road; DBM Industrial Training Center and Govt. I.T.I. The FGD in Janjgir-Champa was conducted at the Anganwadi centre- 3, Sarkhogram Panchayat. In terms of the profile of the candidates, around 55% of the respondents were in the age group 15-20 while 34% of them were between 21-25 years. Remaining 11% of the respondents were 26 years and above. In terms of gender representation, around 33% of the participants were females and 67% were males. The educational qualification of about 61% of the participants was high-school level or below. Around 32% of them were graduate and above with the remaining participants being diploma/certificate holder.

The key observations about aspirations of the youth of the district are highlighted below:

Table 209: Youth Aspiration – Key Responses – Janjgir-Champa

Parameters	Responses
Job Preference	<ul style="list-style-type: none"> Most of the youth preferred Government jobs over private sector jobs. A very small proportion of the youth expressed an interest in self-employment with the majority being inclined towards regular/ salaried employment.
Preferred Course	<ul style="list-style-type: none"> Training for job readiness appears to be most popular among the youth in the district. Computer related courses like COPA (Computer Operator and Programming Assistant), BCA (Bachelor of Computer Application), DCA (Diploma in Computer Application) & PGDCA (Post Graduate Diploma in Computer Application) are the most preferred courses amongst the youth. 60% of the youth surveyed prefer computer related courses. Courses like Tally, Electrician are also illustrious amongst the youth.
Migrating for job	<ul style="list-style-type: none"> Most of the youth (68%) particularly females prefer jobs within the district.
Salary Expectations	<ul style="list-style-type: none"> Average monthly salary expectation of youth ranges between Rs 10,000 –35,000/-
Areas of concern/ aspirations- Infrastructure	<ul style="list-style-type: none"> Rural youth expressed a need for good transport system in order to facilitate better access to the institutes.
Areas of concern/ aspirations-Course Curriculum	<ul style="list-style-type: none"> Youth expressed a need for industry tie-ups for employment. They suggested that the local industries should train people on apprenticeship/ internship model to improve job prospects. Youth feel that institutes should focus more on soft skill/personality development courses and language training.
Suggestions given by youth	<ul style="list-style-type: none"> The youth expect Govt. to take up initiatives to improve college infrastructure. There should be more courses, practical classes, resourceful, efficient and regular teachers available in the institutes. The Government should open new institutes with more trades. The examination results of the programs should be declared timely so that they can take up higher education or job after completing their training. English, Hindi or both must be used as the medium of teaching.

A sample survey was conducted with youth at gram panchayat level & those coming out from various educational institutions (Government & private) to understand & capture their aspirations. The findings are presented below:

Job preference by youth

The majority of the youth surveyed (68%) **prefer to get a job within their home district** as provided in the adjacent figure. Approximately 10% of the respondents preferred job within their state of residence. The survey highlights the fact that not many youth are interested to migrate out of state in search of jobs. Around **78% of the youth surveyed wanted to get a job within Chhattisgarh** thus demanding and necessitating the creation of suitable positions and absorption capacity for them in the employment market.

Parameter for Institute Selection

A majority of the students surveyed (71%) selected an institute for higher education based on the quality of education offered by the institute and its reputation. Around 29% of the respondents quoted the **proximity of the educational institution** as their prime parameter while selection of an institute for higher education.

Youth Perception Mapping

Youth perception mapping was undertaken to understand their level of satisfaction with either their current institute or their experience and feedback on the available educational infrastructure. The results are summarized below:

Low satisfaction with placement / jobs available post training:

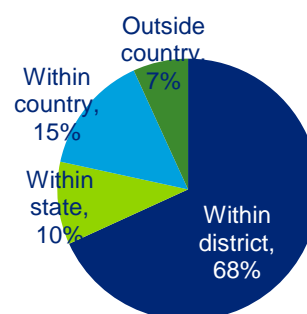
Around 82% of the students surveyed expressed their dissatisfaction with the placement opportunity available in the institute or jobs available in the district and shared that **the employment opportunities available to them post training were not satisfactory**.

Non-availability of latest technologies and equipment for training: 57% of the students surveyed expressed their dissatisfaction with the availability of latest technology & equipment for training in the institute while only 21% of them shared their satisfaction with the same. They demanded the institutes to be adequately equipped and upgraded with latest technology.

Dissatisfaction with capability of institute's faculty in teaching: Around 72% of the students highlighted the lack of good quality teachers in their institutes. Around 16% of the students surveyed expressed satisfaction with their faculty. The youth also highlighted the lack of sufficient number of faculty in the institute and emphasized on facilitating industry tie-ups for inviting visiting faculty.

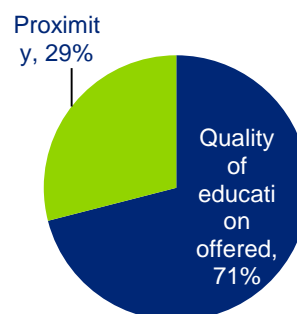
Need for better access to information to make an informed career choice: Around 79% of the students shared that they did not get proper accessibility to information in order to make an informed career choice. The concern was raised more by the rural youth. They emphasized the importance of career counseling while making a choice for higher education.

Figure 229: Job Preference by Youth



Source: Deloitte Analysis

Figure 230: Parameter for Choice of Institute



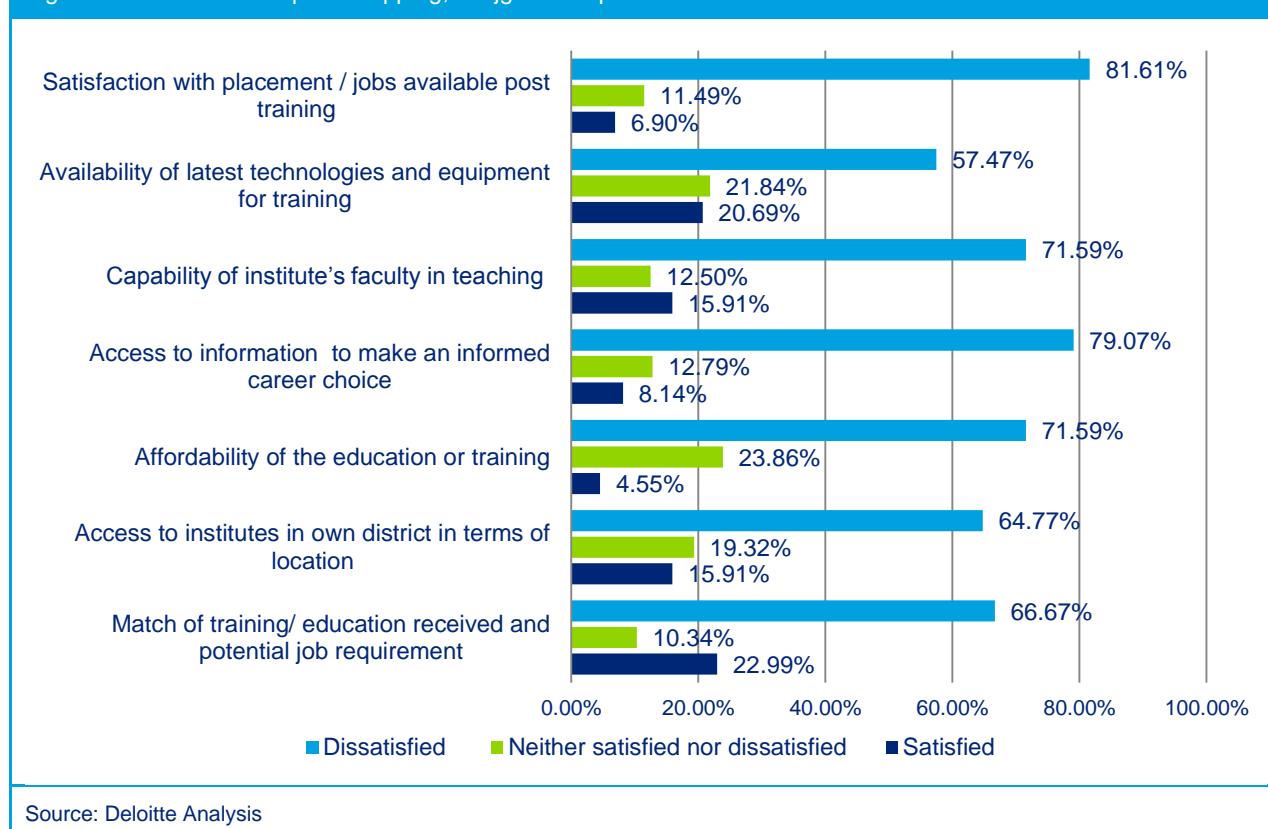
Source: Deloitte Analysis

Affordability of the education a concern for the students: Majority of the students surveyed (around 72%) felt that the fee charged by the education/ training institute is a concern for them. They emphasized that the quality of training programme offered should be commensurate with the fees charged. Moreover, they requested Government to arrange free training programs on soft skills, personality development and computer.

Access to institutes is an issue in rural areas: Approximately 65% of the students surveyed felt the educational institutes to be inaccessible in terms of location and voiced the government to support them by arranging suitable transport facilities.

Dissatisfaction with the alignment of training/education received with job requirements: Approximately 67% of the students surveyed feel that the training/education currently provided by the educational institutes in the district is not in alignment with the job requirements of the business. Only 23% of the youth felt that the training/ education received by them matches the potential job requirements of the employers. Thus, the survey brings out the need to make the required changes in the course curriculum to make the same application based and industry relevant.

Figure 231: Youth Perception Mapping, Janjgir-Champa



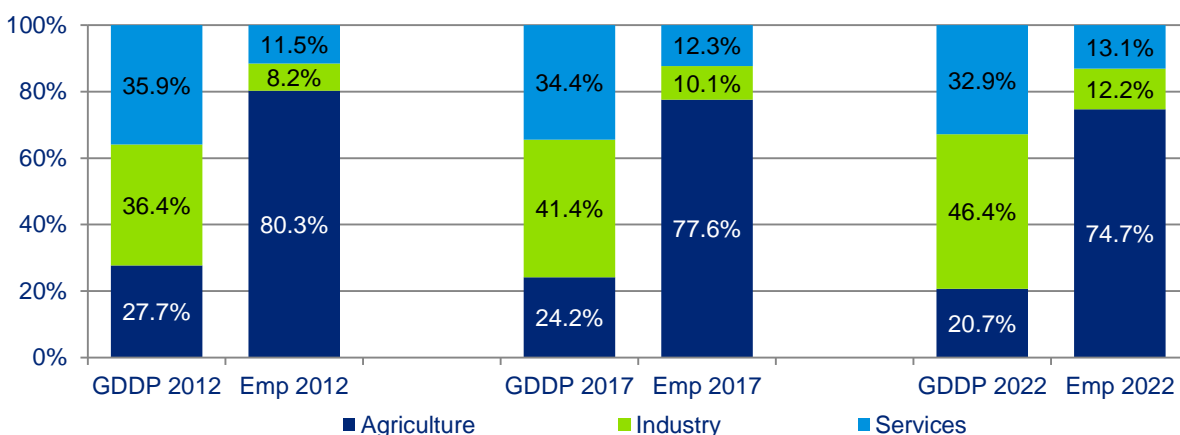
Key Observations:

- ♦ Govt. Jobs were preferred over private. A very small proportion of the youth expressed an interest in self-employment with the majority being inclined towards regular/ salaried employment.
- ♦ While boys were willing to migrate to outside district and state for jobs and education, it was vice versa for girls, who selected institutions/ jobs on the basis of proximity to home.
- ♦ Computer related courses like COPA (Computer Operator and Programming Assistant), BCA (Bachelor of Computer Application), DCA (Diploma in Computer Application) & PGDCA (Post Graduate Diploma in Computer Application) are the most preferred courses amongst the youth. 60% of the youth surveyed prefer computer related courses.
- ♦ Courses like Tally, Electrician are also illustrious amongst the youth.
- ♦ Improving institute-industry interface to ensure better apprenticeship/internship and placement was emphasized.

4.12.7 Skill Gap Assessment

The working age population (15-59) constitutes 58.6% of the total district population in 2011 and is expected to increase to 61.7% by 2022.

Figure 232: Comparison of Sectoral share in GDDP & Employment, Janjgir-Champa



Source: Deloitte Analysis

Based on our analysis and primary interactions, the Agriculture sector is expected to be an important sector in terms of providing employment in the district and would account for the largest share of workforce over the decade. If the trends in employment continue, in 2021-22, the share of employment across the Agriculture sector is expected to decline to 74.7% as compared to 80.3% in 2012.

The Industry and Services sector employment share are estimated to increase to 12.2% and 13.1% respectively, as indicated in the table above. This trend appears to be in line with the national trend as well where people are moving out of the agriculture sector and moving into the industry and services sectors respectively.

Incremental Human Resource Demand

As per the methodology, the total incremental demand for manpower in Janjgir-Champa from 2012 to 2022 is expected to be around 1.90 lakhs. Following table provides the break-up of the incremental demand for manpower in Janjgir-Champa as per the skill levels required.

Table 210: Estimated Incremental Human Resource Demand ('00) by Skill Level in Janjgir-Champa

	2012-17	2017-22	Total
Skilled	117	135	253
Semi-Skilled	245	276	521
Minimally Skilled	562	563	1,125
Total	924	975	1,899

Source: Deloitte Analysis

Some of the key trends observed on the demand side include

- ♦ Agriculture sector is expected to be the largest incremental demand generating sector in the district (48.0%) with demand largely in the minimally skilled workers (87%).

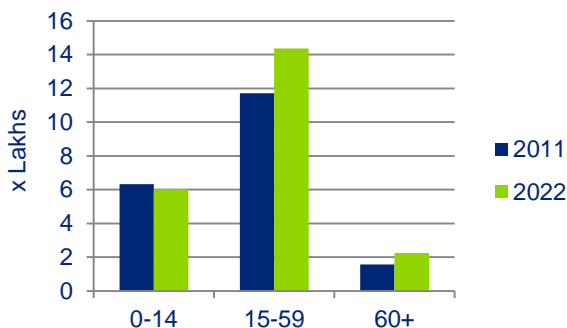
- ♦ *Manufacturing (mineral/ metal based units) is anticipated to be the second largest incremental demand generating sector (11.6%) in the district with demand largely for the semi-skilled workers (60%). Mineral based units are currently one of the key micro and small industries in the district in terms of manpower employed and investments proposed. Presence of the Industrial Area at Champa and Kapan and incidences of minerals like Limestone, Dolomite, and Murram etc. is anticipated to facilitate the growth of manufacturing units.*
- ♦ *Within the industry sector, the other key growth sectors in Janjgir-Champa in terms of incremental demand for manpower include Building and Construction (8.7%) and Food Processing-primarily micro and small units (3%).*
- ♦ *In the services sector, trade (retail + wholesale) is expected to be one of the major employers (6.6%).*
- ♦ *Analysis of formal and informal employment indicates that the incremental demand for manpower in formal sector would come mainly from Building and Construction, Manufacturing (mineral/metal based units), BFSI, Public Administration and Mining & Quarrying.*
- ♦ *Majority of demand for incremental manpower in the informal sector is projected to come from Agriculture, Manufacturing (mineral/metal based units), Trade (Retail + Wholesale), Building & Construction and Food Processing.*

Table 211: Incremental Human Resource Demand ('00) by Skill Level in Janjgir-Champa - Key Sectors

#	Key Sectors	2012-17				2017-22			
		Skilled	Semi-skilled	Minimally Skilled	Total	Skilled	Semi-skilled	Minimally Skilled	Total
1	Agriculture	14	47	410	471	13	44	384	442
2	Manufacturing (mineral/ metal based)	21	62	21	103	24	71	24	118
3	Building & Construction	11	29	33	73	14	37	42	93
4	Trade (Retail + Wholesale)	9	31	22	62	9	31	22	62
5	Food Processing	3	8	16	27	3	9	18	30
6	BFSI	10	9	1	21	18	16	2	36
7	Mining & Quarrying	2	5	10	17	3	9	19	31
8	Others	48	53	49	151	51	59	53	163
	Total	117	245	562	924	135	276	563	975
	Overall Incremental Demand				1899				
Source: Deloitte Analysis									

Incremental Human Resource Supply

Figure 233: Age wise distribution of population, Janjgir-Champa- 2011 and 2022 (projected)



Source: Census 2011 and Deloitte Analysis

The population of Janjgir-Champa is expected to increase from 16.2 lakhs in 2011 to 18.5 lakhs in 2022. The adjacent figure provides the current and projected population across various age groups. The number of persons in the working age group is expected to increase by 1.89 lakhs during the period. This represents a huge challenge for the state to make available higher education and skill development facilities as well as ensure productive employment opportunities for its working age population.

As per the methodology, the estimated incremental manpower supply over a period of 10 years (2012-22) will be around 2.14 lakh.

Incremental manpower supply can be further classified into skilled, semi-skilled and minimally-skilled as per the education qualifications and estimated output of educational & vocational training institutes in the district.

Table 212: Estimated Incremental Human Resource Supply ('00) by Skill Level in Janjgir-Champa

	2012-17	2017-22	Total (2012-22)
Skilled	216	226	442
Semi-Skilled	261	278	539
Minimally Skilled	587	567	1,154
Total	1,064	1,071	2,135

Source: Deloitte Analysis

Some of the key trends observed on the supply side include

- Proportion of incremental supply of minimally-skilled manpower is 54%, compared to 25% of semi-skilled and 21% of skilled workforce (2012-22).
- Janjgir-Champa has 39 out of 590 colleges in the state indicating the district's share in the higher education space of the state at 6.6%. This is comparable to the corresponding share of district's population in the state (6.4%). The proportion of skilled workforce in the district is anticipated to increase slightly over the decade.
- Janjgir-Champa has 16 out of 180 ITIs in Chhattisgarh and accounts for around 9% of the total ITIs/private ITIs in the state. It also has growing presence of VTPs & Private vocational training providers. The supply of semi-skilled workforce is estimated to increase over the two time period which is in-line with the current focus of government in improving the skill development space of state.
- In terms of the impact of migration, an inflow of workers (primarily minimally skilled) is expected from other states and districts of the state and accounts for around 1.5% of the total supply of workforce in the district.

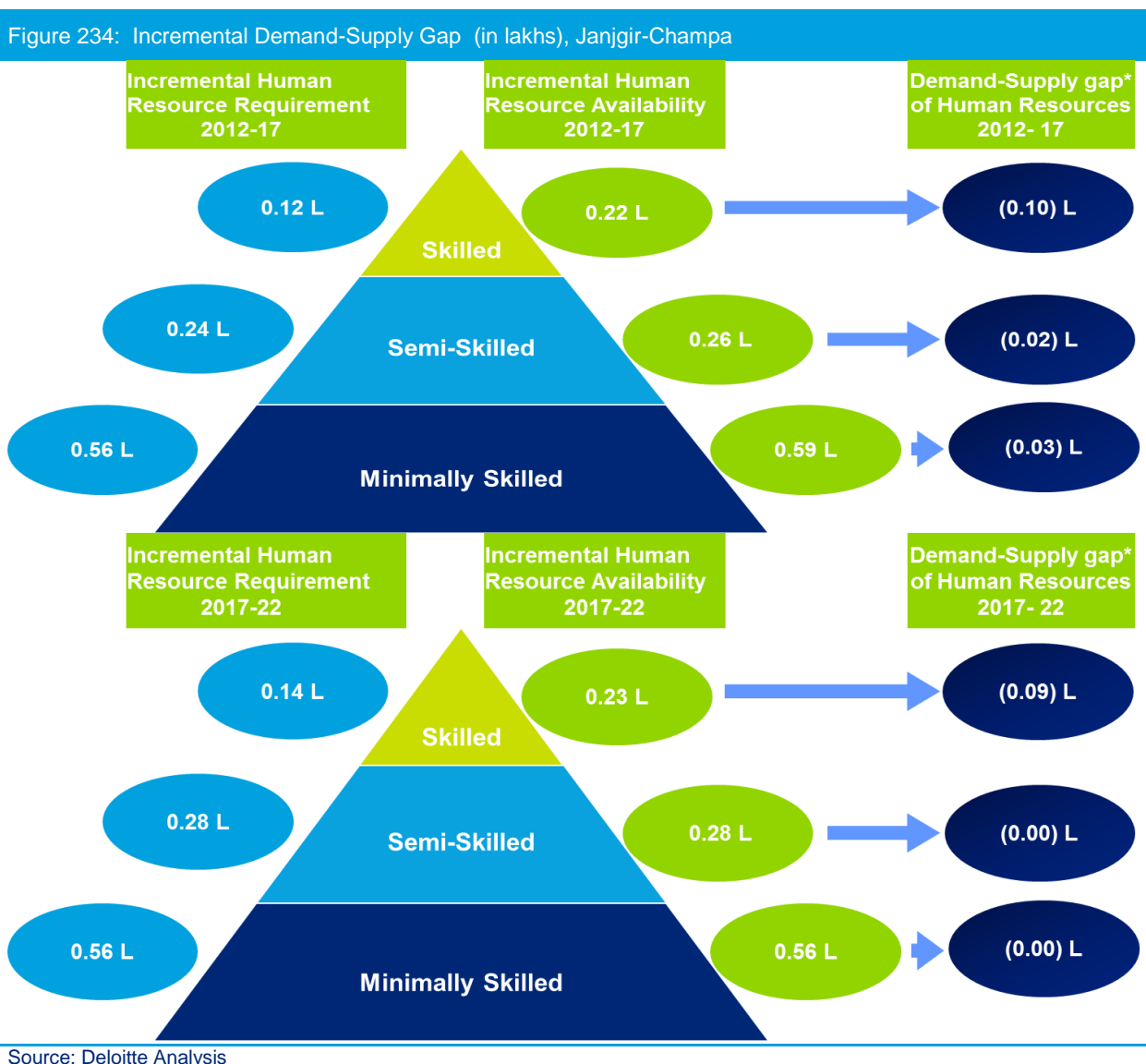
Incremental Demand Supply Gap

During the period 2012-22, the incremental human resource demand in Janjgir-Champa across all skill levels is estimated to be 1.90 lakhs while the supply is projected to be 2.14 lakh indicating thus a surplus of 0.24 lakh people (refer table below). There is estimated to be an excess supply over demand across all the skill segments (skilled, semi-skilled and minimally skilled) in Janjgir-Champa.

Table 213: Projected Demand Supply gap ('00) by skill levels in Janjgir-Champa

#	District Skill Gap	2012-17				2017-22			
		Skilled	Semi-skilled	Min. Skilled	Total	Skilled	Semi-skilled	Min. Skilled	Total
1	Incremental HR Requirement (Demand)	117	245	562	924	135	276	563	975
2	Incremental HR Availability(Supply)	216	261	587	1,064	226	278	567	1,071
3	Demand-Supply Gap	(99)	(16)	(25)	(140)	(91)	(2)	(4)	(96)
	Overall Demand-Supply Gap				(138)				
Source: Deloitte Analysis									

During the period 2012-22, the incremental manpower demand supply gap of the district (across all sectors mentioned above) is expected to be a surplus of about 0.24 lakh people with the excess supply primarily across skilled segment as shown in the following figure.



Some of the key trends observed on the demand-supply gap include

- ✦ The composition of the human resource demand supply gap in the district over the two different time periods i.e. 2012-17 and 2017-22 is anticipated to remain the same.
- ✦ The excess supply in the skilled segment is expected to continue over the decade. This is in line with presence of better education facilities in the district. However, there seems to be **mismatch between outputs** from higher educational institutions in the district (79% in general degree courses) **to job specific skills** required by sectors having high demand for skilled labor. Due to the excess supply, skilled workers may need to seek employment opportunities outside the district.
- ✦ The supply of semi-skilled workers is anticipated to meet the demand during the period 2017-22. However, in terms of educational qualification, approximately 69% of the total inflow of semi-skilled workforce is estimated to be class 12 pass outs having undergone no job/skill specific training. This

indicates that most of the supply of semi-skilled labor is actually untrained with the output from ITI/VTPs constituting only a small fraction. In addition, primary interactions have also raised **employability & deficit in specific jobs/ skills amongst the workers** as major concern.

- ♦ As indicated in the figures, the excess supply of minimally skilled human resources is estimated to reduce owing to the greater focus of the state on improving school education, and providing an impetus in the skill development space. The demand of minimally skilled workers during 2017-22 is expected to be almost equal to the supply of minimally skilled workers during the same period.

Qualitative Skill Gaps

The qualitative skill gaps that were highlighted during our primary interactions with industry at Janjgir-Champa are provided in the table below.

Table 214: Qualitative Skill Gaps

Sector	Level	Skill Gap
Agriculture	Tractor operator and mechanics/ Electricians/ Mechanics for repair & maintenance of agricultural tools & implements	<ul style="list-style-type: none"> ♦ Sufficient training to address tool & equipment failures like motor pump failure, gear damage, tyre puncture etc.
Manufacturing (mineral/metal based)	Manager/Engineer	<ul style="list-style-type: none"> ♦ Project Management and People Management Skills ♦ Knowledge of appropriate safety practices ♦ Communication skills (Writing Skills)
	Supervisors	<ul style="list-style-type: none"> ♦ Interpersonal and communication skills ♦ Understanding of quality concepts ♦ Understanding of product specifications ♦ Knowledge and implementation of safety practices ♦ Improve efficiency by avoiding wastage of resources
	Workmen/operators	<ul style="list-style-type: none"> ♦ Understanding of discipline, industrial rules, work related procedures etc. ♦ Ability to carry out basic troubleshoot in case of machine breakdown ♦ Understanding of wastage or resources, to improve efficiency in working ♦ Practicing safety measures in the workplace ♦ Multi skilling
Building & Construction	Project Managers/Engineers	<ul style="list-style-type: none"> ♦ Knowledge of design and tools such as AutoCAD etc. ♦ Knowledge of green/eco-building design ♦ Project Management and People Management Skills ♦ Knowledge of appropriate safety practices ♦ Client Management skills (e.g. government officials for approvals, flat owners etc.)
	Supervisors: plumbing, electrical, carpentry, masonry, drilling	<ul style="list-style-type: none"> ♦ Skills in civil- operations of ready mix m/c, earth movers, etc. ♦ Basic repair and maintenance ♦ Exposure to right methodology in construction specific skills like lining, leveling etc. ♦ Site safety concepts and procedures ♦ Lack of finishing skills
	Workmen: plumbing, electrical works, carpentry, masonry, drilling	<ul style="list-style-type: none"> ♦ Basic operating skills related to relevant category ♦ Improved/ better quality in finishing ♦ Site safety concepts and procedures

Sector	Level	Skill Gap
Trade (Retail and Wholesale)		<ul style="list-style-type: none"> Ability to understand & follow instructions/ manuals
	Store/Department Manager	<ul style="list-style-type: none"> Understanding of cross functional activities in the store esp. logistics, marketing and merchandising People management skills Vendor Management Lack of IT skills
	Billing Associate/ Accountants/ Computer operators	<ul style="list-style-type: none"> Knowledge of transaction processing software and cash management Knowledge of tally/accounting practice
	Sales/Customer Service personnel	<ul style="list-style-type: none"> Product specific knowledge Customer service and Inter personal skills Communication skills
Food Processing	Procurement Managers	<ul style="list-style-type: none"> Ability to forecast demand and undertake procurement accordingly Ability to locate and enter into relationships with farmers Lack of IT skills
	Plant Associates and operators	<ul style="list-style-type: none"> Limited basic engineering knowledge esp. on practical aspects, process knowledge e.g. distillation Lack of importance on wastage of resources.
	Material Handlers	<ul style="list-style-type: none"> Limited awareness on quality, health and hygiene awareness Limited basic computer skills including barcode reading
	Sales and marketing	<ul style="list-style-type: none"> Limited Communication skills, ability and willingness to understand the manufacturing process
	Machine Operators	<ul style="list-style-type: none"> Insufficient knowledge of machine operation and use Ability to understand & follow instructions/ manuals Limited ability to carry out basic repairs and troubleshooting

4.12.8 Recommendations

Future Growth Opportunities in Janjgir-Champa

In the context of the current economic profile and proposed investments of the district, the demand for human resources at various skill levels has been analyzed. The observations have been augmented by primary interactions with industry & industry association representatives in the district and government officials at the state and district level. Based on our analysis and considering factors like high growth and employment potential, priority sector for the state government, investment trends, etc., the following sectors/industries have been identified with future growth opportunities for employment and subsequently, skill development in Janjgir-Champa.

Table 215: Key Growth Sectors – Janjgir-Champa

#	Priority Sectors	Growth opportunities in skills development and employment
1	Agriculture	<ul style="list-style-type: none"> Janjgir–Champa is one of the leading producers of food grains in the state. As of 2011, the gross cropped area in Janjgir-Champa is 2.97 lakh ha while the net area sown of crops in the district is 2.59 lakh ha. Agriculture is currently providing employment to around 79% of the workers in the district & is expected to grow at around 5% over the next decade (2012-22). It is anticipated to be the residual & largest incremental employer in the district accounting for around 48% of the total incremental demand for manpower. Cultivation of paddy along with production of horticultural produce like Potato, Tomato, Mango and Banana is expected to employ a significant section of the workforce.
2	Manufacturing (mineral/ metal based)	<ul style="list-style-type: none"> Manufacturing units which primarily includes mineral based and metal based fabrication units is projected to be the second largest employer in the district with approximately 12% of the total incremental demand for employment estimated to come from this sector over the period 2012-22. Mineral based units are currently one of the key micro and small industries in the district in terms of manpower employed and investments proposed. Presence of the Industrial Area at Champa and Kapan and incidences of minerals like Limestone, Dolomite, Murram etc. is anticipated to facilitate the growth of manufacturing units primarily cement plants in the district.
3	Building & Construction	<ul style="list-style-type: none"> Construction is another major contributor in the district economy which is expected to grow at around 12.7% (2012-22). The total budgeted value for ongoing building and construction activities (building and roadwork) in Janjgir-Champa for the year 2013-14 is allocated at Rs. 481 crores²⁷⁵. Building and construction is projected to be one of the chief employers in the district with approximately 9% of the total incremental demand for employment estimated to come from the sector.
4	Trade (Wholesale + Retail)	<ul style="list-style-type: none"> Trade (Wholesale+ Retail) is another major contributor in the district economy which contributed around 13% to the GDDP in 2012-13 and is expected to grow at around 8% over the decade (2012-22). The district is a major hub for agricultural trade. It is anticipated to be one of the largest employers of the district, contributing to about 6.6% of the total incremental manpower demand in Janjgir-Champa.
5	Manufacturing - Food Processing	<ul style="list-style-type: none"> Agro based units are one of the key micro and small industries in the district both in terms of manpower employed as well as the investments proposed. It currently employs around 20% of the workers in micro and small manufacturing²⁷⁶.

²⁷⁵ Chhattisgarh Public Works Department

²⁷⁶ Brief Industrial Profile of Janjgir-Champa District, MSME-DI, Raipur

#	Priority Sectors	Growth opportunities in skills development and employment
		<ul style="list-style-type: none"> It is estimated to grow at around 10.5% over the decade (2012-22) and is projected to be one of the key employers in the district in terms of the total incremental demand for employment.
Source: Deloitte Analysis		

Considering the economic and skill landscape of Janjgir-Champa, the table below indicates the priority areas of focus for key stakeholders involved. These observations have been mainly derived from the growth opportunities identified above and through primary interactions with industry and industry association representatives in the district along with inputs from the students, training institutes and government.

Table 216: Key Recommendations for Stakeholders – Janjgir-Champa

Stakeholder	Priority Areas
NSDC	<p>NSDC can focus the efforts of its training partners in the key sectors identified in the district, viz.</p> <ul style="list-style-type: none"> Agriculture Manufacturing (primarily mineral/metal based) Building and Construction Trade (Wholesale + Retail) Manufacturing – Food Processing
Private training providers	<ul style="list-style-type: none"> There is a need for courses in Manufacturing sector (primarily mineral/ metal based) owing to the demand for more trained workers in the sector. Additionally, courses in Agriculture, Food Processing, trade (wholesale + retail) and building and construction can also be explored. The training institutes can introduce/ substantiate multi-disciplinary courses in sectors such as trade, food processing, building & construction etc. In order to promote self-employment in the district, entrepreneurship development courses in the high growth sectors identified may be introduced. There is a need for design and delivery of bridge courses with a focus on communication, language, basic IT and soft skills to make students job ready.
Government	<ul style="list-style-type: none"> The Government should promote and endorse vocational education as a practical alternative to formal education with emphasis on providing job ready courses. To encourage self-employment, the MSME-DI, Raipur should arrange multiple product-cum-process oriented programs in the district like Entrepreneurship Skill Development programmes (ESDPs), Entrepreneurship Development Programmes (EDPs), Industrial Motivation Camps (IMCs), BSDPs etc. for different groups of unemployed youth, people from weaker sections of the society, minorities, SCs & STs, technocrats, etc. with an objective of developing entrepreneurial qualities and preparing new entrepreneurs to setup their own small enterprises. The regional DET offices and employment exchanges should collaborate together and arrange awareness campaigns in the district with focus on providing information on the VTP/Skill development institutes in the district along with the courses offered, registration process, course requirements, future job opportunities etc. It should be followed by at least one annual job fair in the district organized in collaboration with industry.
Industry	<ul style="list-style-type: none"> More industry interactions should be initiated in the Manufacturing (primarily mineral/metal based), Building & Construction, Trade and Food Processing sectors in the district There is a need to collaborate with skill development institutes (SDI), ITIs and Employment Exchanges in the district to create structures/ linkages for placement and internship/ OJT opportunities Industry players should participate in relevant SSCs to provide relevant inputs especially in the high growth sectors identified in the district.

4.13 Jashpur

4.13.1 District Profile

Jashpur district, located in the north-eastern part of Chhattisgarh came into existence on 25th May 1998 from the parent district Raigarh. It is surrounded by Gumla district of Jharkhand in the east, Surguja in the west, some parts of Jharkhand and Balrampur in the north and the districts of Raigarh and Sundargarh (Orissa) in the south. It extends over an area of 5838 sq. Km, which is 4.3% of the total state area.

The district is a part of Surguja division. Geographically, the district is divided into two parts, the northern hilly belt known as the Upper Ghat and the remaining southern part called Nichghat. The Upper Ghat is a forest area with a reserve forest and runs from Loroghat, kastura, Narayanpur, Bagicha up to the Surguja district. The Upper Ghat is an extension plateau covering 1384 km² which is about 1200 meters above sea level and is covered by a dense forest²⁷⁷. The elevated plateau is called "Pat". The remaining southern part is known as Nichghat which is flat in general but has many big mountains as well. The district is divided into 8 tehsils viz. Bagicha, Manora, Jashpur, Kansabel, Pathalgaon, Farsabahar, Duldula and Kunkuri. Jashpur Nagar is the administrative headquarter of the district. As of 2010-11, the district included 765 revenue villages, 411 Gram Panchayats and 1 Nagar Palika²⁷⁸. The district is currently a part of red corridor.

Jashpur is known for its tomato production. The district is also endowed with forests covering around 37% of the total geographical area. The forest cover of Jashpur comprises of very dense forest (5.1%), moderately dense forest (68.6%) and open forest (26.2%)²⁷⁹.

Map 14: Jashpur District



Table 217: Jashpur District Profile

#	Indicator	Jashpur	Chhattisgarh	% Share
1.	Area, in sq.km.	5,838	135,190	4.3
2.	No. of sub-districts	8	149	5.4
3.	No. of inhabited villages	755	20126	3.8
4.	No. of households (lakhs)	1.93	56.51	3.4
5.	Average Land holding size (Ha)	1.08	1.17	
6.	Forest area cover	37.07%	41.18%	
Source: Census 2011; Directorate of Economics & Statistics-Govt. of Chhattisgarh; State of Forest Report 2011-Forest survey of India				

²⁷⁷ Jashpur.gov.in

²⁷⁸ Census 2011

²⁷⁹ State of Forest Report 2011-Forest survey of India

4.13.2 Demography

As per Census 2011, Jashpur has a total population of 8, 51,669 of which males and females comprised 49.9% (4, 24,747) and 50.1% (426,922) of the total district's population respectively. About 60.18% of the district's population is in the working age population class group. The district shares approximately 3.34% of the state's population. The decadal population growth in Jashpur during 2001-2011 was 14.60%, which is higher than the population growth of 13.23% during the period 1991-2001. As of 2011, Jashpur ranks 10th amongst all the districts of Chhattisgarh in terms of population.

Jashpur is pre-dominantly a tribal district with Scheduled Tribes being the major social class in the district. Scheduled Caste constitute slightly less than two-third of the district's population. About 91.08% of the total population resides in rural areas with only 8.92% of them being urban residents²⁸⁰. Jashpur district has the highest percentage of rural population in Chhattisgarh. Consecutively, the district also has the lowest percentage of urban population in the state. However, the district registered the 2nd highest urban population growth rate (122.33%) in the state over the period 2001-2011²⁸¹. The urban population growth rate in the district is also higher than the average percentage of urban population growth in the country.

The population density of the district has improved over the decade with around 146 persons per sq. km. in 2011 as compared to 127 persons per sq. km. in 2001; however it is much lower than the state average (189). The sex ratio of the district is impressive with over 1005 females present per 1000 males and is higher than the average sex ratio of the Chhattisgarh. However, per capita income in the district is significantly less than the state average.

Table 218: Demographic Indicators of Jashpur

Demography	Jashpur	Chhattisgarh
Population (2011)	8,51,669	2,55,40,196
Population 15-24 (2011)	1,60,101	49,89,339
Decadal Population Growth Rate (2001-11)	14.60%	22.6%
Population density per sq. km (2011)	146	189
Percentage of Urban Population (2011)	8.92%	23.2%
Percentage of SC population (2011)	5.7%	12.8%
Percentage of ST population (2011)	62.3%	30.6%
Average household size	4.42	4.54
Sex Ratio (2011)	1005	991
Working age population (15-59) as a percentage of total population, %	60.2%	62%
Per Capita Income (2009)	Rs. 14,890 ²⁸²	Rs.28,263

Source: Census of India 2011; Directorate of Economics and Statistics-Govt. of Chhattisgarh; Deloitte Analysis

²⁸⁰ Census 2011

²⁸¹ *ibid.*

²⁸² At 2004-05 constant prices, Deloitte Analysis

Key Observations:

- ♦ The Scheduled Tribe population of the district (62.3%) is significantly higher than the state average (30.6%).
- ♦ Jashpur registered the 2nd highest urban population growth rate (122.33%) in the state over the period 2001-2011 which is higher than the average percentage of urban population growth in the country.

4.13.3 Economic Profile

The economy of Jashpur has registered a CAGR of about 6.8% (estimated at constant prices, 2004-05) between 2004-05 and 2008-09 and grown from Rs. 948.52 Cr. to Rs 1236.29 Cr. The district recorded a lower growth as compared to the state growth of 9.6% over the same period.

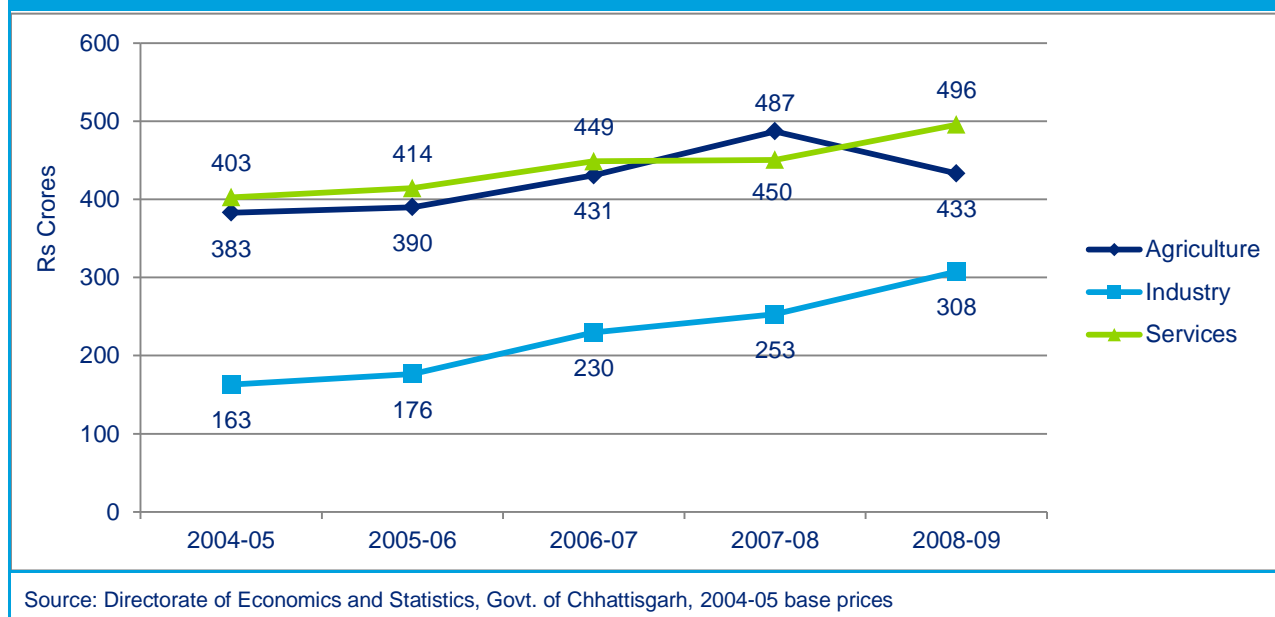
In 2008-09, Jashpur district contributed about 1.8% in the state economic activity. At Rs.1236.29 Cr, the district ranked 18th in the state in terms of economic activity amongst all 27 districts.

The economy of Jashpur district is pre-dominantly Services sector based with its share in GDDP pegged at 40.1% in 2008-09. This is followed by agriculture and Industry sector which contributes 35.0% and 24.9% in the district economic profile respectively.

In terms of sector level contribution to GDDP, the Agriculture sector's contribution has declined from 40.4% in 2004-05 to 35.0% in 2008-09, as indicated in the figure below. Similarly, the Services sector contribution also registered a marginal decline from 42.4% to 40.1% between the same time periods. However, the economic contribution of Industry and Services sectors in absolute terms has grown consistently in the district. It is important to note that the share of Industry sector in the district has increased from 17.2% to 24.9%.

The sector-wise GDDP growth and distribution in the district from 2005-09 is provided below.

Figure 235: Sectoral Share of GDDP, 2004-05 to 2008-09, Jashpur



Agriculture sector

The contribution of Agriculture sector (agriculture, forestry & logging and fishing) to the GDDP was 35.0% in 2008-09. The sector witnessed a slow progression and grew at a CAGR of 3.1% between 2004-05 & 2008-09. The overall sectoral contribution declined in the district by about 5.3% over the same time frame. Agriculture was the chief contributor in the total output of Agriculture sector in the district contributing around 76.5% in the year 2008-09 followed by forestry & logging activities (20.7%) and fishing (2.6%).

The district has a tropical climatic condition. The entire district falls under Mahanadi Basin with Ib and Kanhas being the main tributaries²⁸³. Sakh is another river, which separates the district on the north-east corner from Jharkhand state. Out of the total geographical area of 5.84 lakh ha, gross cropped area in the district is 2.59 lakh ha and net cropped area is 2.44 lakh ha²⁸⁴.

The tropical climate of the district encourages agricultural production. Tomato, Potato and Paddy are the major crops in the district. In terms of horticultural produce, Jackfruit, Mango, Litchi, Papaya etc. are grown in the district.

Tomato is produced in mass volume in Pathalgaon Tehsil. The chief village involved in Tomato production is Ludeg which is also known as the 'Tomato Village' of Chhattisgarh. Tomatoes are harvested primarily in rainy season and are available from October to January. The region is a hub for tomato trade with traders coming from Allahabad, Ranchi, Jharsuguda and nearby districts. Potato is also grown in abundance in the district with hilly area of the Pandrapat being the major centre. Potato & Arhar production is taken up extensively in Pandrapat in the rainy season. In the Upper Ghat Jashpur region many households have also planted jackfruit trees which are found in the region during March, April, May and June. The major crops produced in the district are summarized below.

Table 219: Key Crops in Jashpur

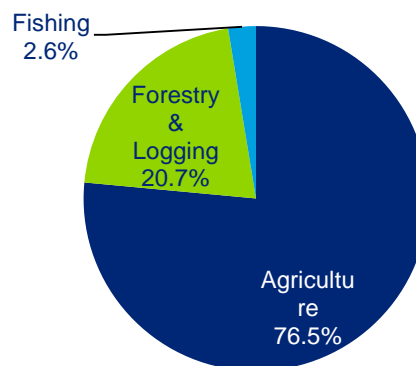
S#	Category	Key Crops
1	Food Grain	Paddy, Maize, Kodo-Kutki, Wheat, Tau
2	Oil Seed	Jatangi, Mustard, Gingli(Til), Groundnut, Toriya, Alsi, Kusum, Sunflower
3	Pulses	Arhar, Urad, Kulthi, Moong, Masoor, Gram, Pea, Tiwra
4	Vegetable	Tomato, Potato, Brinjal, Cabbage, Garlic, Onion, Chilli, Lady's finger, Sweet Potato, Tomato
5	Fruit	Jack-Fruit, Mango, Litchi, Custard Apple, Blackberry, Papaya, Tamarind, Pear

Source: Jashpur.gov.in

Jashpur falls under the Surguja forest circle and the important non-nationalized species available in the district are Kusum (Lac), Palash, Imli, Mahulpatta, Mahua, Kusum (Oil Seed), Karanj, Chironjee, Shahad and Baibiding.

Industry sector

Figure 236: Sub-sectoral break-up of Agriculture sector (2008-09), Jashpur



Source: Directorate of Economics and Statistics-Govt. of Chhattisgarh

²⁸³ <http://cgwb.gov.in/NCCR/Jashpur.htm#introduction>

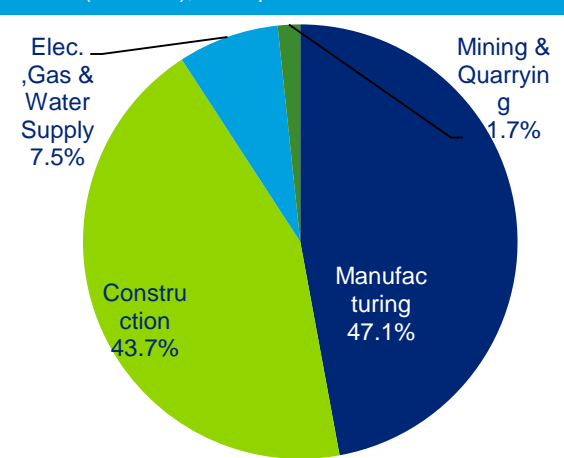
²⁸⁴ Statistical Pocket Book of Chhattisgarh, 2010-11

The Industry sector (manufacturing, mining & quarrying, construction, electricity, gas and water supply) contributed 24.9% to the GDDP in 2008-09. The sector grew at an impressive CAGR of around 17.2% between 2004-05 & 2008-09. The overall contribution of the sector in the district economic profile increased from 17.2% in 2004-05 to 24.9% in 2008-09.

Manufacturing sector is the major contributor within the Industry sector accounting for a sectoral share of approximately 47.1% followed by construction sector (43.7%), electricity, gas & water supply (7.5%) and mining & quarrying (1.7%). The total budgeted value for ongoing building and construction activities (building and roadwork) in Jashpur for the year 2013-14 is allocated at Rs. 43 crores²⁸⁵.

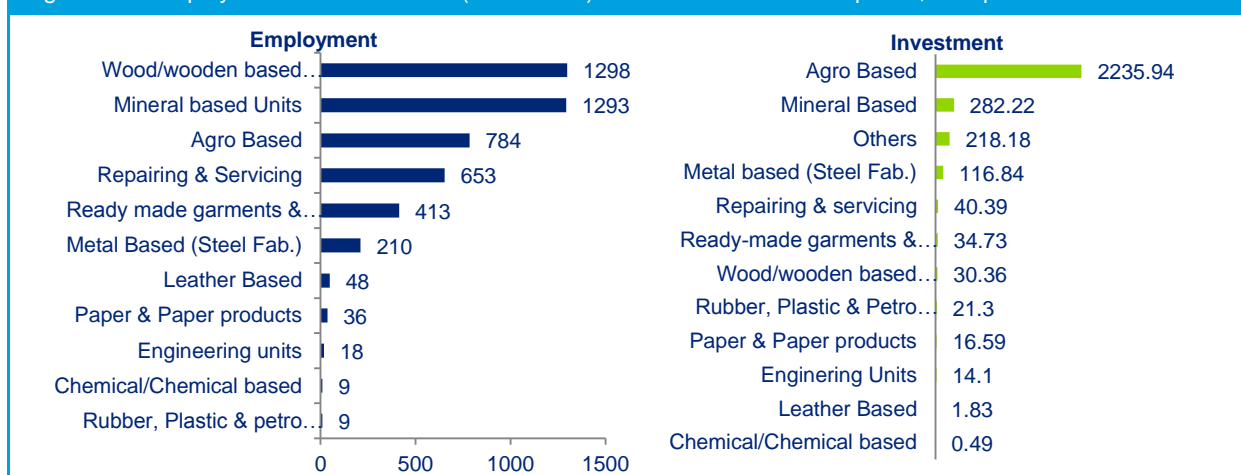
The district's economy is pre-dominantly agro based. As per the Industrial profile of Jashpur district by MSME-DI, Raipur, there are a total of 1829 registered units in the district. The district has industrial area at Gamharia (developed over an area of 4.04 ha with 13 plots established), Gholend (developed over an area of 2.80 ha with 1 plot established) and Harradipa (developed over an area of 1.49 ha with 1 plot established)²⁸⁶. Jashpur has a flourishing handloom & handicraft industry. The artisans of the region are famous for their Wood work, Carpet Weaving, Godna and Bamboo Work. There are a total 22 existing handicraft clusters in the district²⁸⁷.

Figure 237: Sub-sectoral break-up of Industry sector (2008-09), Jashpur



Source: Directorate of Economics and Statistics, Govt. of Chhattisgarh

Figure 238: Employment and investment (in Rs lakhs) in micro and small enterprises, Jashpur



Source: Ministry of Micro, Small and Medium Enterprises, Government of India, 2011-12 and Deloitte Analysis

²⁸⁵ Chhattisgarh Public Works Department

²⁸⁶ Brief Industrial profile of Jashpur district, MSME-DI, Raipur

²⁸⁷ Chhattisgarh Handicrafts Sector Profile, Chhattisgarh Handicrafts Sector Meet-2012

The key micro and small industries in the sector in terms of employment include units of wood/wooden based furniture, mineral based units, agro based industries, repairing and servicing entities and ready-made garments & embroidery units. In terms of availability of minerals, the district has a wide variety of minerals found in igneous, sedimentary and metamorphic terrains. Bauxite and Gold pieces are found in the region. Bauxite is found in the Manora block area while Gold pieces are found in Pharasbahar area²⁸⁸.

Table 220: Production of Minerals in Jashpur (2010-11)

S#	Mineral	Production in Tons
1	Quartz (Major Mineral)	3120
2	Stone (Minor Mineral)	307483
3	Sand Clay (Minor Mineral)	52353
4	Muram (Minor Mineral)	NA
5	Sand (Minor Mineral)	961.75

Source: Brief Industrial Profile of Jashpur District, MSME-DI, Raipur

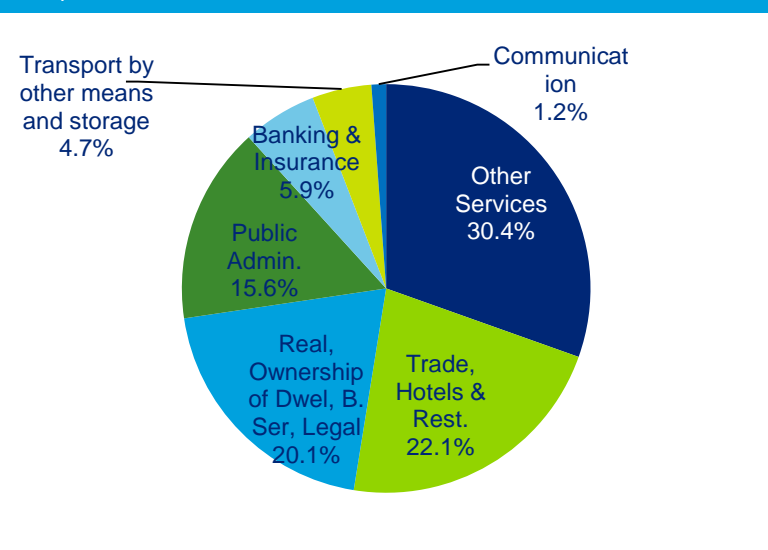
The total mineral revenue receipt of the district in 2012-13 was around Rs. 305.26 lakhs (major minerals: Rs. 2.69 lakhs, minor minerals: Rs. 292.49 lakhs & others Rs. 10.08 lakhs).

Services sector

The Services sector contributed to about 40.1% of the district economic profile in the year 2008-09. The sector grew at a CAGR of around 5.3% between the period 2004-05 & 2008-09. The sectoral contribution declined in the district by 2.4% over the same time frame. The key contributor to the sector is other services contributing approximately 30.4% in the district Services sector followed by trade, hotels & restaurants (22.1%) and Real Estate (20.1%).

Rajpuri Water fall, Kailash Gupha, Danpuri Waterfall, Gullu waterfall, Churi waterfall, Bane Waterfall, Rani Jhula, Rani Dah waterfall, Bhiringraj Waterfall, Cathedral (Mahagirja Ghar) Kunkuri, Damera, Khurirani Cave, Snake Park, Badalkhol Abhyaran and Sograh Aghor are some of the chief tourist attractions in the district. In terms of road connectivity, the district had 982.10 kms. of main district highway, 882.33 kms. of other district & rural Roads, 21.97 kms. of rural road/ Agriculture Marketing Board Roads and 1458.16 kms. of kachha road in 2010-11²⁸⁹.

Figure 239: Percentage contribution of the Services sector (2008-09), Jashpur



Source: Directorate of Economics and Statistics- Govt. of Chhattisgarh

²⁸⁸ Jashpur.gov.in

²⁸⁹ Brief Industrial Profile of Jashpur district, MSME-DI, Raipur

The district has a total of 16066* telephone connections, 55* telephone centres, 514* rural PCOs and 860* STD PCOs in 2011²⁹⁰. NH-43 passes through the district.

With a CAGR of about 19.8% and 16.7% over the period 2005-2009, Banking & Insurance and Communication were amongst the fastest growing sectors in the district respectively, though their absolute sizes were small.

In 2011, Jashpur had a total of 47 commercial banks, 22 rural banks registering approximately 7% increment in the number of bank branches over the previous year²⁹¹.

Key Observations:

- ♦ The economy of Jashpur district is pre-dominantly Services sector based with its share in GDDP pegged at 40.1% in 2008-09 followed by Agriculture & Industry sector contributing 35.0% and 24.9% respectively.
- ♦ The district is known for Tomato production in Ludeg village which is also known as the 'Tomato Village' of Chhattisgarh.
- ♦ In 2009, agriculture occupied the highest share in district economic profile at 27% followed by other services (12%), Construction (11%) and Trade, Hotels & Restaurant (9%).

²⁹⁰ *ibid.*

* Data of Surguja SSA, BSNL, as Jashpur district comes under it.

²⁹¹ Statistical Pocket Book of Chhattisgarh, 2010-11

4.13.4 Employment Profile

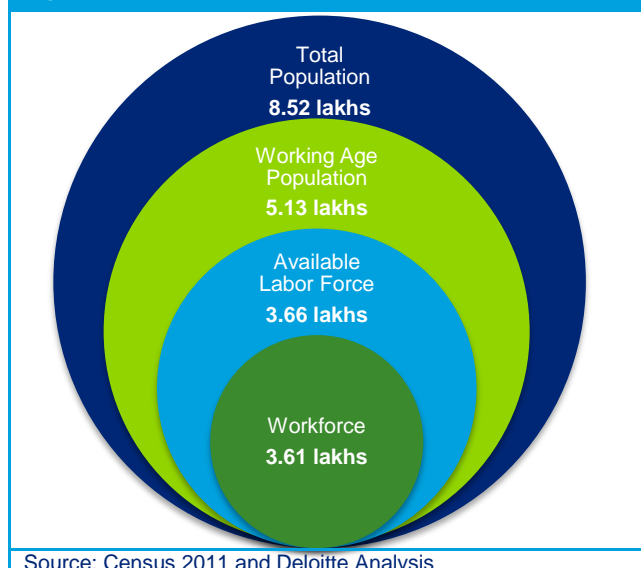
With a total population of 8.52 lakhs in the year 2011, Jashpur accounts for nearly 3.34% of the state's population.

The adjacent figure depicts the estimated workforce in Jashpur in the context of total population of the district. Out of the total population of 8.52 lakhs, the working age population (between 15-59 age group) is estimated at 5.13 lakhs or nearly 60.2%.

Based on the labor force participation rate and the worker participation rate estimates for the state, the available labor force is estimated to be 3.66 lakhs and the workforce is estimated at 3.61 lakhs or nearly 70% of the working age population.

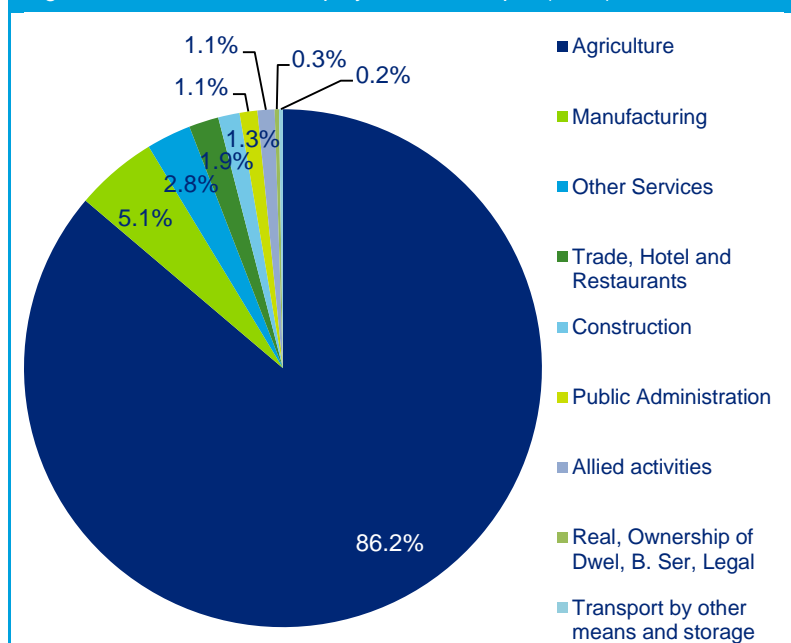
Agriculture sector is the biggest employer in the district in 2011 employing around 87.1% of the total workforce with the sector contributing around 23% in the district economic profile.

Figure 240: Total Workforce in Jashpur (2011)



Source: Census 2011 and Deloitte Analysis

Figure 241: Sector wise employment in Jashpur (2011)



Source: Census 2011 and Deloitte Analysis

The remaining workforce is absorbed by the Industry sector and Services sector which shares 6.5% and 6.4% of the available labor in the district respectively.

The adjoining figure summarizes the sector-wise employment share in Jashpur for the year 2011. Agriculture employs around 86% of the total workforce available in the district followed by manufacturing (5.1%), other services (2.8%), trade, hotels and restaurants (1.9%), and construction sector (1.3%).

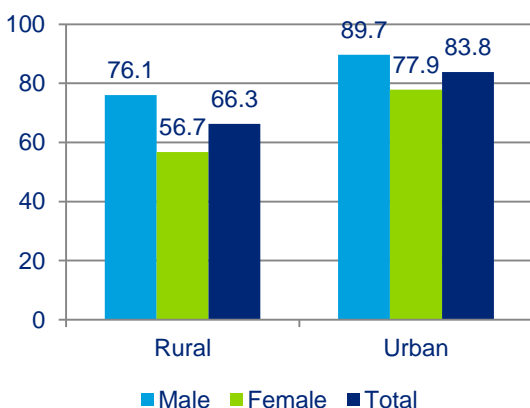
The top five sectors in the district in terms of employment account for more than 97% of the total employment of the available workforce in Jashpur in 2011.

4.13.5 Education Infrastructure

The literacy rate in Jashpur has improved from 63.77% in 2001 to 67.92% in 2011²⁹². The literacy rate of the district is lesser than the state's literacy rate of 71% in 2011 as well as the all-India literacy rate of 73%. In 2011, male and female literacy rates stood at 77.32% and 58.61% respectively, both figures registering an improvement compared to the 2001 figures of 75.16% and 52.44% respectively²⁹³.

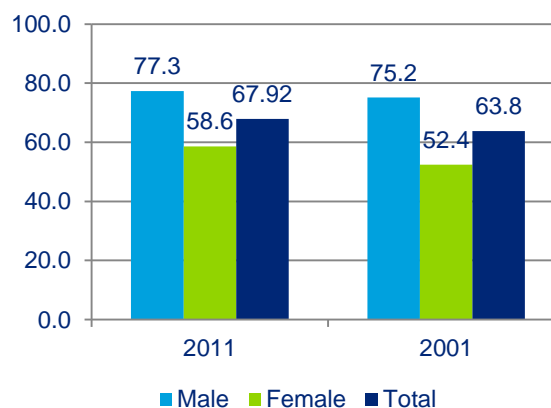
However, there still exists a significant disparity between the male-female and urban-rural literacy rates.

Figure 242: Literacy rate 2011 (by residence), Jashpur



Source: Census of India 2011

Figure 243: Literacy rate (by Gender), Jashpur



Source: Census of India, 2001 and 2011

School Education

Jashpur has 1964 primary schools, 616 upper primary schools, 91 secondary schools and 126 higher secondary schools. Net enrolment ratio (NER) is very high at the primary level. The NER at the upper primary level (65.3%) is comparable to the state NER of 67.8%.

Table 221: Status of school education infrastructure in Jashpur, 2013

#	Educational Statistics	Units in Jashpur	Units in Chhattisgarh	% Share of District in State
1	Primary School	1964	35588	5.5%
2	Upper Primary School	616	16442	3.7%
3	Secondary School	91	2632	3.5%
4	Higher Secondary School	126	3548	3.6%
5	NER (Primary) (2010-11)	100%	98.0% ²⁹⁴	-
6	NER (Upper Primary) (2010-11)	65.3%	67.8%	-

Source: DISE 2012-13

Vocational Education

For vocational training, Jashpur has a total of 6 ITI's in the district, of which 5 are Government Industrial Training Institutes and one is a Private Industrial Training Institute. Jashpur has no woman ITI. The total capacity of the ITIs in the district is 696. The total capacity of the Govt. ITI's is 560 and that of the private

²⁹² Census 2011

²⁹³ Census 2011

²⁹⁴ Data is for 2008-09

ITI's is 136. Computer Operator and Programming Assistant (COPA) and Electrician courses have the maximum units affiliated among ITI's in the district. The number of courses available in ITIs and their capacity are listed in the table below:

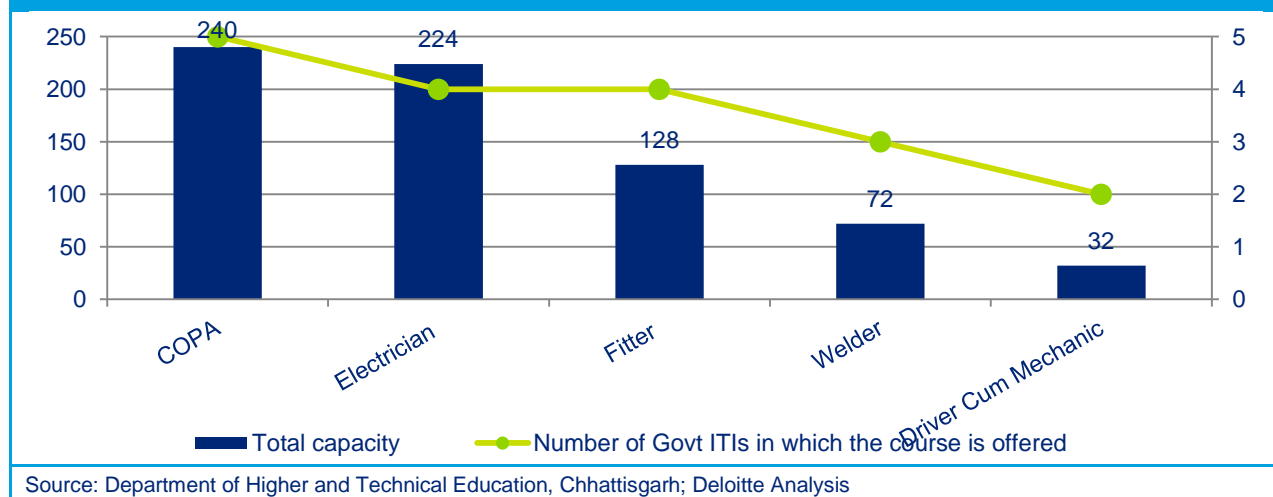
Table 222: ITIs in Jashpur and their capacity

Name of ITI	Number of courses offered	Total Units affiliated	Total Capacity
Government Industrial Training Institute, Tapkara	3	6	104
Government Industrial Training Institute, Pathalgaon, Dist.-Jashpur	3	6	96
Government Industrial Training Institute, Kunkuri	2	4	72
Government Industrial Training Institute, Bagicha	5	9	144
Government Industrial Training Institute, Ara	5	9	144
Raja Vijay Bhushan Singh Dev Private ITI	2	8	136
Total	5*	42	696

Source: Department of Higher and Technical Education- Chhattisgarh; Deloitte Analysis
 *Total number of different courses offered by ITI's in Jashpur

The major courses offered in the ITIs and their capacity in Jashpur is given in the figure below:

Figure 244: Major courses offered in ITIs and their capacity in Jashpur



According to Chhattisgarh State Skill Development Mission Website, as of 12th March 2014, Jashpur has 131 enumerated **Vocational Training Providers (VTPs)** under which 1923 beneficiaries have been registered.

The following table highlights the courses offered in vocational education, which currently meet requirements of about 10 sectors.

Table 223: Courses offered in vocational education, Jashpur

Sector	ITI trades and Units affiliated	Courses Offered by VTPs
Auto and auto components Electronics and IT hardware	Electrician(14), Fitter(8), Welder(6)	Electrical, Electronics, Fabrication, Automotive Repairs,
IT and ITES Tourism, hospitality and travel Organized retail Banking, financial services and insurance	Computer Operator and Programming Assistant(12), Driver cum mechanic (2)	ICT, Soft skill, Banking & Accounting, Travel & Tourism
Textiles and clothing		Garment making, Textile Silk, Sericulture,
Transportation, logistics, warehousing and packaging Construction material and building hardware		Construction
Unorganized sector (particular reference to agriculture, security, plumbing, domestic worker, foundry, etc.)		Beauty Culture and Hair Dressing

The following table highlights the NSDC partners present in Jashpur as of January 2014 and the courses offered by them.

Table 224: NSDC partners present in Jashpur

Name of Partner	Sectors in which course is offered	Courses offered
AISECT	IT and computer skills Hardware	<ul style="list-style-type: none"> ♦ Diploma in Computer Applications (DCA) ♦ Post Graduate Diploma in Computer Applications (PGDCA)
	ITES-BPO	<ul style="list-style-type: none"> ♦ Diploma in Computer Applications (DCA) ♦ Post Graduate Diploma in Computer Applications (PGDCA) ♦ Diploma in Computer Programming and Applications (DCPA)
Don Bosco Tech Society	Building & Construction	<ul style="list-style-type: none"> ♦ Basic Welding ♦ Electrician
	Automobile / auto components	<ul style="list-style-type: none"> ♦ Automobile Repair

Source: NSDC

Higher Education

The status of higher education in Jashpur is not very promising. Out of a total 590 colleges in the state, only 10 colleges are in the district of Jashpur indicating the district's share in the higher education space of the state at just 1.7%. This is lower in comparison to the share of population of Jashpur to the state (3.3%). Moreover, all the colleges present in the district offer only general degree courses.

Key Observations:

- ♦ The share of Jashpur in the higher education space of the state is just 1.7%.
- ♦ For imparting vocational education, the district presently has 6 ITIs and 131 VTP's active.

4.13.6 Youth Aspirations

In the process of capturing the aspirations of the youth population in Jashpur, Focused Group Discussions (FGD's) were held with youth of different age groups from educational institutions as well as residing in rural areas to understand their chief concerns, areas of interest and future dreams and goals. The youth survey in Jashpur was conducted at the Polytechnic College; Jashpur School of Nursing and Raja Vijay Bhushan Singh Dev Private ITI. The FGD in Jashpur was conducted at the Gram Panchayat Bhavan, Kanmora. In terms of the profile of the candidates, around 58% of the respondents were in the age group 15-20 while 39% of them were between 21-25 years. Remaining 3% of the respondents were 26 years and above. In terms of gender representation, around 58% of the participants were males & 42% were females. The educational qualification of about 79% of the participants was high-school level or below. Around 19% of them were diploma/certificate holder with remaining participants being graduates and above. The key observations about aspirations of the youth of district are highlighted below.

Table 225: Youth Aspiration – Key Responses – Jashpur

Parameters	Responses
Job Preference	Most of the youth preferred Government jobs over private jobs due to the job security and regular salary offered in a Government job.
Factors influencing selection of training institution	Institutions are selected by youth on the basis of future employment prospects, proximity to home and availability of seats/ subject of interest.
Preferred Course	<ul style="list-style-type: none"> • Training for job readiness appears to be most popular among the youth in the district. Apart from the regular courses offered by educational/ training institutions; spoken English, basic communication skills, personality development, soft skills & basic IT skills are considered to be very important by the youth which they feel is one of the most important element to get a job. • Women are more interested in trades like tailoring & sewing, micro-industries, mushroom farming etc.
Migrating for job	Most of the youth (55%) particularly females prefer jobs within the district . But males are willing to go outside district and state for jobs.
Salary Expectations	Average monthly salary expectation of youth is Rs. 10,000/- and above .
Areas of concern/ aspirations- Infrastructure	<p>Following views were expressed regarding infrastructure in educational institutions:</p> <ul style="list-style-type: none"> • Youth reported poor quality of infrastructure in the institutes in terms of books in the library, building, laboratories etc. • They reported the absence of playground for sports activities and emphasized the need for proper sanitation and drinking water facilities. • The inadequacy of computers in schools and non-functioning of those available was also highlighted.
Areas of concern/ aspirations-Course Curriculum	<ul style="list-style-type: none"> • Rural youth expect free computer training, free coaching for competitive examination and training camps within the district. • Youth feel that institutes should focus more on soft skill and language training besides technical know-how, and it is critical for getting a good job. • Local industries should train people on apprenticeship/ intern model to improve job prospects.
Other concern	<ul style="list-style-type: none"> • It was also learnt that youth are not aware about the newly introduced Govt. initiatives on skill development such as VTPs (MES/ SDI scheme). • A very few of the respondents preferred to be self-employed.
Suggestions given by youth	<ul style="list-style-type: none"> • The youth expect Govt. to take up initiatives to improve institute infrastructure. • They also expect Government to start more technical degree colleges like engineering in the district. • Youth expressed that Govt. should take measures like scholarships for the underprivileged students to provide proper education facilities to the poor people.

Parameters	Responses
	<ul style="list-style-type: none"> There should be more courses, practical classes, resourceful, efficient and regular teachers available in the institutes. Need for training on soft skill programs was also highlighted by the youth.

A sample survey was conducted with youth at gram panchayat level & those coming out from various educational institutions (Government & private) to understand & capture their aspirations. The findings are presented below:

Job preference by youth

The majority of the youth we surveyed (55%) **prefer to get a job within their home district** as is evident from the adjacent figure. Approximately 15% of them preferred for job within their state of residence. The survey highlights the fact that around **70% of the youth surveyed wanted to get a job within Chhattisgarh** thus demanding and necessitating the creation of suitable positions and absorption capacity for them in the employment market. The survey reveals that not many youth are interested to migrate out of state in search of jobs.

Parameter for Institute Selection

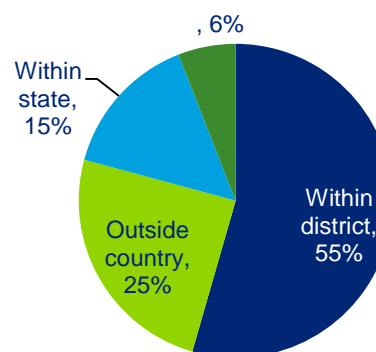
A majority of the students surveyed (84%) quoted the prospects of future employment as their necessary criteria for choice of educational institute. Around 13% of the respondents especially at the gram panchayat level quoted the **proximity of the educational institution** as their prime parameter while selection of an institute for higher education. 3% of them mentioned the **availability of seats/subject of interest in the institute as a prime parameter for making the choice**.

Youth Perception Mapping

Youth perception mapping was undertaken to understand their level of satisfaction with either their current institute or their experience and feedback on the available educational infrastructure. The results are summarized below:

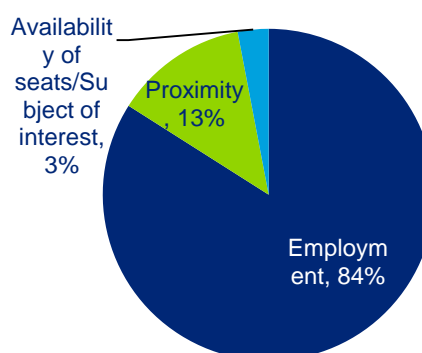
Low satisfaction with placement / jobs available post training: The students were almost equally opined with reference to the satisfaction with the placement/jobs available post training in the district. While around 48% of the students surveyed expressed their satisfaction with the placement opportunity available in the institute or jobs available post training, approximately 44% of them felt the job opportunities available to them post training were not satisfactory. They shared their expectation of being provided with a placement opportunity by the institute or facilitate a tie-up with nearby companies to give them an experience of hands on training.

Figure 245: Job Preference by Youth



Source: Deloitte Analysis

Figure 246: Parameter for Choice of Institute

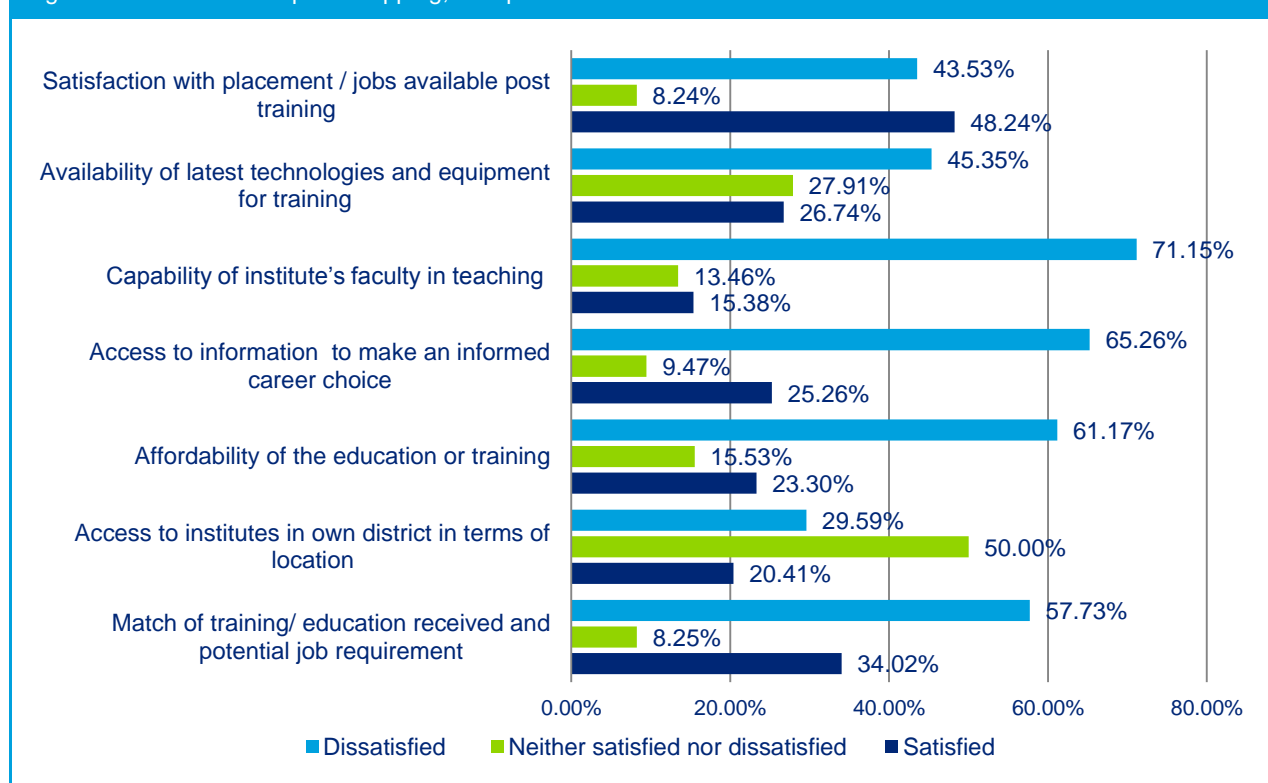


Source: Deloitte Analysis

Non-availability of latest technologies and equipment for training: 45% of the students surveyed expressed their dissatisfaction with the availability of latest technology & equipment for training in the institute while around 27% of them shared their satisfaction with the same. They felt the lack of equipment as a major constraint for their knowledge enhancement and appropriate level of skill development. They demanded the institutes to be adequately equipped and upgraded with latest technology.

Dissatisfaction with capability of institute's faculty in teaching: Around 71% of the students (especially the students from Government ITI's) feel the **quality of teaching by faculty** is not satisfactory and needs significant improvement. They demanded the number of faculty to be increased as per the demand of the course and the **lack of quality faculty in the institute to be compensated by inviting visiting faculty from outside.**

Figure 247: Youth Perception Mapping, Jashpur



Source: Deloitte Analysis

Need for better access to information to make an informed career choice: Around 65% of the students shared that they did not get proper accessibility to information in order to make an informed career choice. The concern was raised more by the rural youth. They emphasized the importance of career counseling while making a choice for higher education.

Affordability of the education a concern for the students: Majority of the students (around 61%) felt that the fees charged by the education/ training institute was a barrier for them and considered it to be unaffordable for them. They raised their concern that the quality of the training programme offered should be commensurate with the fees charged.

Access to institutes is an issue in rural areas: Around 30% students felt the educational institutes to be inaccessible in terms of location and majority of them were rural youth. 20% of the students surveyed expressed their **satisfaction with the accessibility** of the educational institutes in terms of location. They found the institute to be located in an accessible area and safe in terms of the duration of classes. The rural youth voiced the government to support them by arranging suitable transport facility.

Dissatisfaction with the alignment of training/education received with job requirements: Approximately 58% of the students surveyed feel that the training/education currently provided by the educational institutes in the district is not in alignment with the job requirements of the business. Only 34% of the youth felt that the training/ education received by them matches the potential job requirements of the employers. Thus, the survey brings out the need to make the required changes in the course curriculum to make the same application based and industry relevant.

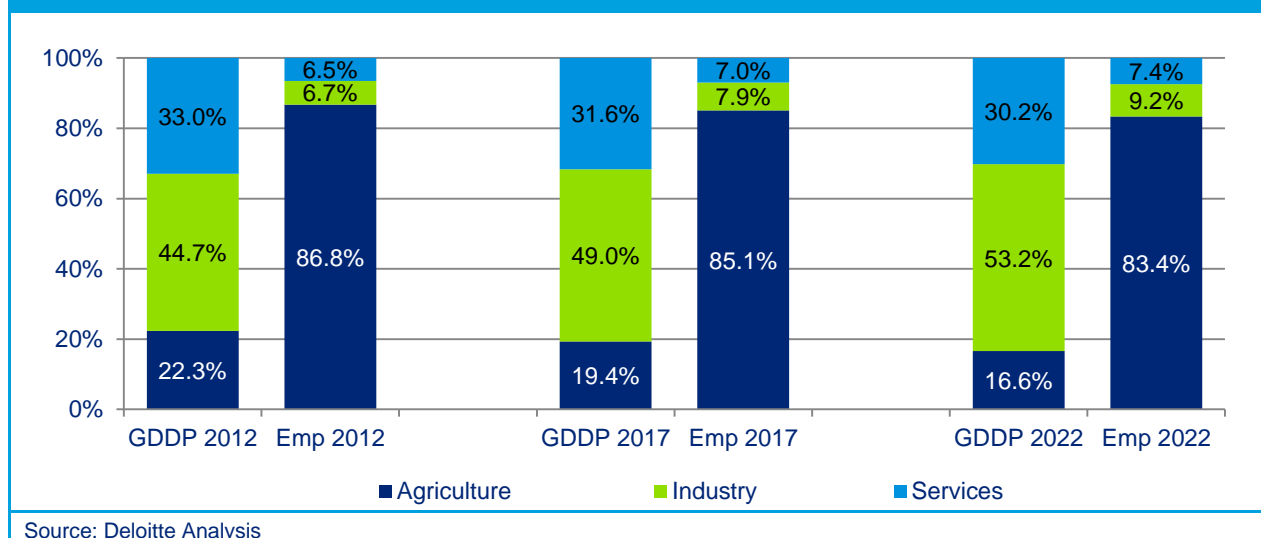
Key Observations:

- ✦ Most of the youth preferred Government jobs over private jobs due to the job security and regular salary offered in a Government job. Average monthly salary expectation of youth is Rs. 10,000/- and above.
- ✦ Institutions are selected by youth in the district on the basis of future employment prospects, proximity to home and availability of seats/ subject of interest.
- ✦ Training for job readiness appears to be most popular among the youth in the district. Apart from the regular courses offered by educational/ training institutions; spoken English, basic communication skills, personality development, soft skills & basic IT skills are considered to be very important by the youth which they feel is one of the most important element to get a job. Women are more interested in trades like tailoring & sewing, micro-industries, mushroom farming etc.
- ✦ Need for updating course content & creating linkages for placement was strongly expressed by youth. Furthermore, they emphasized the need for improving institute-industry interface to ensure better apprenticeship training.
- ✦ Need to address Infrastructure gaps - particularly updating the library and laboratory with latest computers, tools and equipment was expressed.
- ✦ The need for career counseling prior to admissions was also expressed by the youth.

4.13.7 Skill Gap Assessment

The working age population (15-59) constitutes 60.2% of the total district population in 2011 and is expected to increase to 62.8% by 2022.

Figure 248: Comparison of Sectoral share in GDDP & Employment, Jashpur



Source: Deloitte Analysis

Based on our analysis and primary interactions, the Agriculture sector is expected to be an important sector in terms of providing employment (primarily residual) in the district and would account for the largest share of workforce in Jashpur. However, the share of Agriculture sector in the district employment is anticipated to decline over the decade. If the trends in employment continue, in 2021-22, the share of employment across the Agriculture sector is expected to decline to 83.4% as compared to 86.8% in 2012.

The Industry and Services sector employment share are estimated to increase to 9.2% and 7.4% respectively, as indicated in the table above. This trend appears to be in line with the national trend as well where people are moving out of the agriculture sector and moving into the industry and services sectors respectively.

Incremental Human Resource Demand

As per the methodology, the total incremental demand for manpower in Jashpur from 2012 to 2022 is expected to be around 0.71 lakh. Following table provides the break-up of the incremental demand for manpower in Jashpur as per the skill levels required.

Table 226: Estimated Incremental Human Resource Demand ('00) by Skill Level in Jashpur

	2012-17	2017-22	Total
Skilled	36	40	76
Semi-Skilled	79	88	167
Minimally Skilled	231	233	464
Total	346	362	708

Source: Deloitte Analysis

Some of the key trends observed on the demand side include

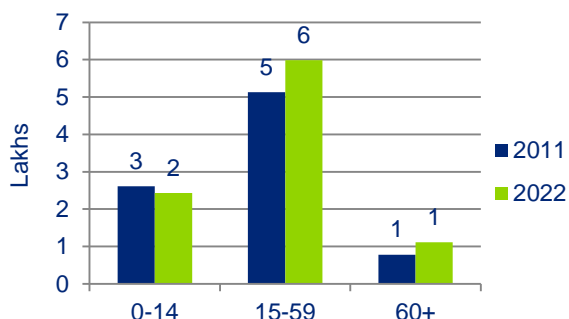
- ♦ *Agriculture sector is expected be the largest incremental demand generating sector in the district (58.9%) with demand largely in the minimally skilled workers (87%).*
- ♦ *Other key growth sectors in Jashpur in terms of incremental demand for manpower include Building and Construction (8.6%), Manufacturing - furniture & furnishing and handloom & handicrafts (7.7%) and Food Processing-primarily micro and small units (3.4%).*
- ♦ *Manufacturing (furniture & furnishing and handloom & handicrafts) is anticipated to be one of the largest incremental demand generating sectors (7.7%) in the district with demand largely for the semi-skilled workers (60%). Wood/wooden based furniture units are currently one of the key micro and small industries in the district in terms of manpower employed and investments proposed.*
- ♦ *Analysis of formal and informal employment indicates that the incremental demand for manpower in formal sector would come mainly from Building and Construction, Public Administration, BFSI, Education & Skill Development Services and Trade (Retail + Wholesale).*
- ♦ *Majority of demand for incremental manpower in the informal sector is projected to come from Agriculture, Furniture & Furnishing, Building & Construction and Food Processing.*

Table 227: Incremental Human Resource Demand ('00) by Skill Level in Jashpur - Key Sectors

Table 22.4: Incremental Human Resource Demand (00) by Skill Level in each par - Key Sectors									
#	Key Sectors	2012-17				2017-22			
		Skilled	Semi-skilled	Minimally Skilled	Total	Skilled	Semi-skilled	Minimally Skilled	Total
1	Agriculture	6	21	184	212	6	21	179	206
2	Building & Construction	4	11	12	27	5	14	15	34
3	Manufacturing (Furniture & Handicrafts)	3	15	8	26	3	17	9	29
4	Food Processing	1	3	7	11	1	4	8	13
5	Others	22	29	20	71	25	33	22	80
6	Total	36	79	231	346	40	88	233	362
Overall Incremental Demand					708				
Source: Deloitte Analysis									

Incremental Human Resource Supply

Figure 249: Age wise distribution of population, Jashpur 2011 and 2022 (projected)



Source: Census 2011 and Deloitte Analysis

The population of Jashpur is expected to increase from 8.52 lakhs in 2011 to 9.53 lakhs in 2022. The adjacent figure provides the current and projected population across various age groups. As per the analysis, the number and proportion of children in 0-14 age group is projected to fall by about 17,714 children, amounting to a fall of around 7% between 2011 and 2022. The number of persons in the working age group is expected to increase by around 0.86 lakh during the same period. This represents a potential demographic dividend for the district with a large increase in the employable population. On the other hand, it presents a huge challenge for the state to make available higher education and skill development facilities as well

as ensure productive employment opportunities for its working age population.

As per the methodology, the estimated incremental manpower supply over a period of 10 years (2012-22) will be around 1.05 lakhs. Incremental manpower supply can be further classified into skilled, semi-skilled and minimally- skilled as per the education qualifications and estimated output of educational and vocational training institutes in the district.

Table 228: Estimated Incremental Human Resource Supply ('00) by Skill Level in Jashpur

	2012-17	2017-22	Total (2012-22)
Skilled	69	72	141
Semi-Skilled	126	135	261
Minimally Skilled	328	318	645
Total	523	525	1,047

Source: Deloitte Analysis

Some of the key trends observed on the supply side include

- Proportion of incremental supply of minimally-skilled manpower is 62%, compared to 25% of semi-skilled and 13% of skilled workforce (2012-22).
- Jashpur has only 10 out of 590 colleges in the state indicating the district's share in the higher education space of the state at just 1.7%. This is lower in comparison to the share of population of Jashpur to the state (3.3%). This also reflects in the proportion of skilled workforce in the district which is anticipated to be the least over the decade.
- The supply of semi-skilled workforce is estimated to increase over the two time period which is in-line with the current focus of government in improving the skill development space of the state.
- The proportion of minimally skilled workers in the workforce is estimated to decrease from 63% over 2012-17 to 61% over 2017-22. From a skilling perspective, this is an important target segment for training so that they can positively contribute to the economy.
- In terms of the impact of migration, an inflow of workers (primarily minimally skilled) is expected from other states and districts of the state and accounts for around 1.2% of the total supply of workforce in the district.

Incremental Demand Supply Gap

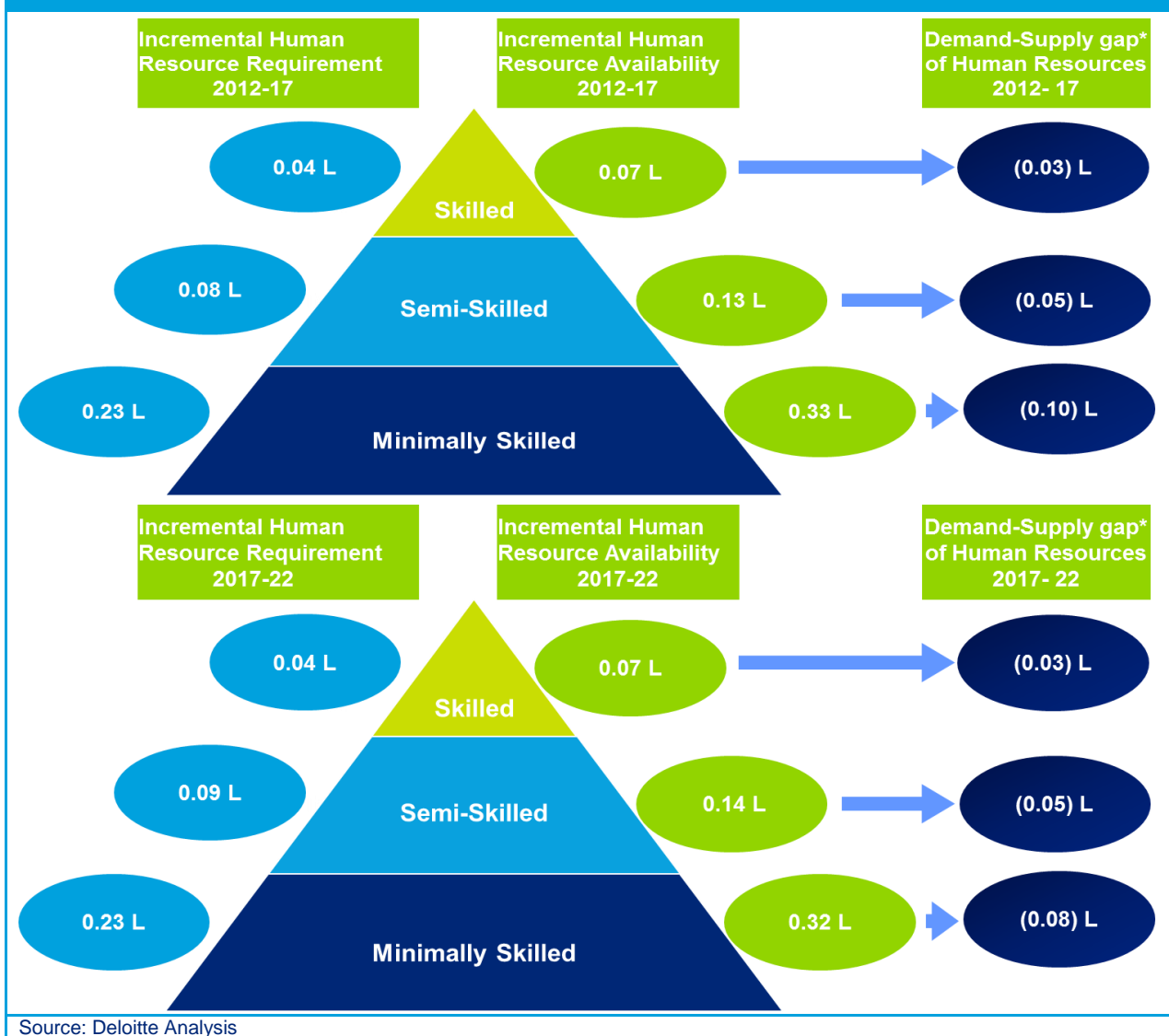
During the period 2012-22, the incremental human resource demand in Jashpur across all skill levels is estimated to be 0.71 lakh while the supply is projected to be 1.05 lakh indicating thus a surplus of 0.34 lakh people (refer table below). There is estimated to be an excess supply over demand across all the skill segments (skilled, semi-skilled and minimally skilled) in Jashpur.

Table 229: Projected Demand Supply gap ('00) by skill levels in Jashpur

#	District Skill Gap	2012-17				2017-22			
		Skilled	Semi-skilled	Min. Skilled	Total	Skilled	Semi-skilled	Min. Skilled	Total
1	Incremental HR Requirement (Demand)	36	79	231	346	40	88	233	362
2	Incremental HR Availability(Supply)	69	126	328	523	72	135	318	525
3	Demand-Supply Gap	(33)	(47)	(97)	(176)	(31)	(47)	(85)	(163)
	Overall Demand- Supply Gap				(339)				
	Source: Deloitte Analysis								

During the period 2012-22, the incremental manpower demand supply gap of the district (across all sectors mentioned above) is expected to be a surplus of about 0.34 lakh people with the excess supply across all skilled segments as shown in the following figure.

Figure 250: Incremental Demand-Supply Gap (in lakhs), Jashpur



Some of the key trends observed on the demand-supply gap include

- The composition of the human resource demand supply gap in the district over the two different time periods i.e. 2012-17 and 2017-22 is anticipated to remain the same.
- Despite the presence of only a few higher education facilities in the district, an excess supply in the skilled segment is expected to continue over the decade primarily owing to the lack of sufficient employment opportunities matching to the skill level. Moreover, there seems to be **mismatch between the current outputs** from higher educational institutions in the district (88% in general degree courses) **to job specific skills** required by sectors having high demand for skilled labor. Due to the excess supply, skilled workers may need to seek employment opportunities outside the district.
- The trend of excess supply is likely to continue in the semi-skilled segment across both the periods. However, in terms of educational qualification, approximately 86% of the total semi-skilled workforce

is estimated to be class 12 pass outs having undergone no job/skill specific training. This indicates that most of the surplus supply of semi-skilled labor is actually untrained, and if only outputs of semi-skilled workers from ITI/VTPs are considered, there is a supply deficit in that category also. In addition, primary interactions have raised **employability & deficit in specific jobs/ skills amongst the workers** as major concerns despite high overall supply in semi-skilled category.

- ♦ As indicated in the figures, the excess supply of minimally skilled human resources is estimated to reduce owing to the greater focus of the state on improving school education, and providing an impetus in the skill development space.

Qualitative Skill Gaps

The qualitative skill gaps that were highlighted during our primary interactions with industry at Jashpur are provided in the table below.

Table 230: Qualitative Skill Gaps

Sector	Level	Skill Gap
Agriculture	Tractor operator and mechanics/ Electricians/ Mechanics for repair & maintenance of agricultural tools & implements	<ul style="list-style-type: none"> ♦ Sufficient training to address tool & equipment failures like motor pump failure, gear damage, tyre puncture etc.
Building & Construction	Project Managers/Engineers	<ul style="list-style-type: none"> ♦ Knowledge of design and tools such as AutoCAD etc. ♦ Knowledge of green/eco-building design ♦ Project Management and People Management Skills ♦ Knowledge of appropriate safety practices ♦ Client Management skills (e.g. government officials for approvals, flat owners etc.)
	Supervisors: plumbing, electrical, carpentry, masonry, drilling	<ul style="list-style-type: none"> ♦ Skills in civil- operations of ready mix m/c, earth movers, etc. ♦ Basic repair and maintenance ♦ Exposure to right methodology in construction specific skills like lining, leveling etc. ♦ Site safety concepts and procedures ♦ Lack of finishing skills
	Workmen: plumbing, electrical works, carpentry, masonry, drilling	<ul style="list-style-type: none"> ♦ Basic operating skills related to relevant category ♦ Improved/ better quality in finishing ♦ Site safety concepts and procedures ♦ Ability to understand & follow instructions/ manuals
Food Processing	Procurement Managers	<ul style="list-style-type: none"> ♦ Ability to forecast demand and undertake procurement accordingly ♦ Ability to locate and enter into relationships with farmers ♦ Lack of IT skills
	Plant Associates and operators	<ul style="list-style-type: none"> ♦ Limited basic engineering knowledge esp. on practical aspects, process knowledge e.g. distillation ♦ Lack of importance on wastage of resources.
	Material Handlers	<ul style="list-style-type: none"> ♦ Limited awareness on quality, health and hygiene awareness ♦ Limited basic computer skills including barcode reading
	Sales and marketing	<ul style="list-style-type: none"> ♦ Limited Communication skills, ability and willingness to understand the manufacturing process
	Machine Operators	<ul style="list-style-type: none"> ♦ Insufficient knowledge of machine operation and use ♦ Ability to understand & follow instructions/ manuals ♦ Limited ability to carry out basic repairs and troubleshooting

4.13.8 Recommendations

Future Growth Opportunities in Jashpur

In the context of the current economic profile and proposed investments of the district, the demand for human resources at various skill levels has been analyzed. The observations have been augmented by primary interactions with industry & industry association representatives in the district and government officials at the state and district level. Based on our analysis and considering factors like high growth and employment potential, priority sector for the state government, investment trends, etc., the following sectors/industries have been identified with future growth opportunities for employment and subsequently, skill development in Jashpur.

Table 231: Key Growth Sectors – Jashpur

#	Priority Sectors	Growth opportunities in skills development and employment
1	Agriculture	<ul style="list-style-type: none"> Agriculture is one of the major activities in the district. The district has a tropical climatic condition which encourages agricultural production. As of 2011, the gross cropped area in Jashpur is 2.59 lakh ha while the net area sown of crops in the district is 2.44 lakh ha²⁹⁵. The district is widely known for Tomato production. Tomato, Potato and Paddy are the major crops in the state Agriculture is anticipated to be the residual & largest incremental employer in the district accounting for around 58.9% of the total incremental demand for manpower. Tomato & Potato production along with production of horticultural produce like Jackfruit, Mango, Litchi, Papaya etc. is expected to employ a significant fraction of the workforce.
2	Building & Construction	<ul style="list-style-type: none"> Construction is another major contributor in the district economy which is expected to grow at around 10.7% (2012-22). The total budgeted value for ongoing building and construction activities (building and roadwork) in Jashpur for the year 2013-14 is allocated at Rs. 43 crores²⁹⁶. Building and construction is projected to be one of the chief employers in the district with approximately 9% of the total incremental demand for employment estimated to come from the sector.
3	Manufacturing – Furniture & Handicrafts	<ul style="list-style-type: none"> Manufacturing units of furniture & furnishing and handloom & handicrafts is projected to be the third largest employer in the district with approximately 8% of the total incremental demand for employment estimated to come from this sector over the period 2012-22. Wood/wooden based furniture units are currently one of the key micro and small industries in the district in terms of manpower employed and investments proposed. Jashpur has a flourishing handloom & handicraft industry. The artisans of the region are famous for their Wood work, Carpet Weaving, Godna and Bamboo Work. There are a total 22 existing handicraft clusters in the district²⁹⁷.
4	Manufacturing - Food Processing	<ul style="list-style-type: none"> Agro based units are one of the key micro and small industries in the district both in terms of manpower employed as well as the investments proposed. The district's economy is pre-dominantly agro based. It is estimated to grow at around 7.9% over the decade (2012-22) and is projected to be one of the key employers in the district in terms of the total incremental demand for employment.

Source: Deloitte Analysis

²⁹⁵ Statistical Pocket Book of Chhattisgarh, 2010-11

²⁹⁶ Chhattisgarh Public Works Department

²⁹⁷ Chhattisgarh Handicrafts Sector Profile, Chhattisgarh Handicrafts Sector Meet-2012

Considering the economic and skill landscape of Jashpur, the table below indicates the priority areas of focus for key stakeholders involved. These observations have been mainly derived from the growth opportunities identified above and through primary interactions with industry and industry association representatives in the district along with inputs from the students, training institutes and government.

Table 232: Key Recommendations for Stakeholders – Jashpur

Stakeholder	Priority Areas
NSDC	<p>NSDC can focus the efforts of its training partners in the key sectors identified in the district, viz.</p> <ul style="list-style-type: none"> • Agriculture • Building and Construction • Manufacturing - Furniture & Handicrafts • Manufacturing – Food Processing
Private training providers	<ul style="list-style-type: none"> • Since a majority of the population in the state is dependent on Agriculture, the private training providers should focus on training or providing extension support services in agricultural products processing, forestry and animal husbandry (including dairy & poultry) for the workers dependent on the sector. • There is a need for courses in manufacturing sector (furniture & handicraft and food processing) owing to the demand for more trained workers in the sector. Additionally, courses in Agriculture and building and construction can also be explored. • The training institutes should introduce/ substantiate multi-disciplinary courses in sectors such as food processing, building & construction etc. • In order to promote self-employment in the district, entrepreneurship development courses in the high growth sectors identified especially in Agriculture may be introduced. • There is a need for design and delivery of bridge courses with a focus on communication, language, basic IT and soft skills to make students job ready as highlighted by the youth of the district during youth interaction.
Government	<ul style="list-style-type: none"> • The Government should promote and endorse vocational education as a practical alternative to formal education with emphasis on providing job ready courses. • The regional DET offices and employment exchanges should collaborate together and arrange awareness campaigns in the district with focus on providing information on the VTP/Skill development institutes in the district along with the courses offered, registration process, course requirements, future job opportunities etc. It should be followed by at least one annual job fair in the district organized in collaboration with industry. • After the receipt of vocational education, the beneficiaries must be provided with handholding support from the government in terms of providing support for facilitating self-employment/placement opportunities.
Industry	<ul style="list-style-type: none"> • More industry interactions should be initiated in the Manufacturing (furniture & handicrafts), Building & Construction, Agriculture and Food Processing sectors in the district • The industry should facilitate linkages (both forward as well as backward) for providing a boost to the high growth sectors especially food processing and manufacturing of furniture & handicrafts. • There is a need to collaborate with skill development institutes (SDI), ITIs and Employment Exchanges in the district to create structures/ linkages for placement and internship/ OJT opportunities. • The major private players as well as public sector enterprises in the state should undertake and encourage vocational training as part of their CSR activities either by partnering with the Skill Development Institutes for training or providing funds/resources for the same.

4.14 Kanker

4.14.1 District Profile

Kanker district is situated in the southern portion of Chhattisgarh and was carved out of erstwhile Bastar district in the year 1998. It extends over an area of 7,161 sq. km, which is 5.3% of the total state area. The district is a part of Bastar division. It is surrounded by Rajnandgaon and Balod in the north, Dhamtari in the east, Kondagaon in the south-east and Narayanpur in the south. It lies between two well-developed cities of Chhattisgarh, namely Raipur and Jagdalpur. The district is divided into 7 tehsils viz. Kanker, Charama, Narharpur, Bhanupratappur, Antagarh, Durgukondal and Pakhanjur, 991 villages and 389 gram panchayats²⁹⁸. Kanker city is the districts headquarter. Small hilly pockets can be seen throughout the area. The main rivers of the district are Doodh river, Mahanadi, Hatkul river, Sindur river and Turu river. Forests account for around 47.56% of the total geographical area of the district. The forest cover of Kanker is higher than the state average & comprises of very dense forest (6.9%), moderately dense forest (66.1%) and open forest (27.0%)²⁹⁹.

Map 15: Kanker District



Table 233: Kanker District Profile

#	Indicator	Kanker	Chhattisgarh	% Share
1.	Area, in sq.km.	7,161	135,190	5.3
2.	No. of sub-districts	7	149	4.7
3.	No. of inhabited villages	991	20126	4.9
4.	No. of households (lakhs)	1.61	56.51	2.8
5.	Average Land holding size (Ha)	1.09	1.17	-
6.	Forest area cover	47.56%	41.18%	-
Source: Census 2011, Directorate of Economics & Statistics-Govt. of Chhattisgarh, State of Forest Report 2011-Forest survey of India				

²⁹⁸ Census 2011

²⁹⁹ State of Forest Report 2011-Forest survey of India

4.14.2 Demography

As per Census 2011, Kanker has a total population of 7, 48,941 of which 89.8% of the people reside in the rural areas. The decadal population growth in Kanker during 2001-2011 was 15.1%, which is lower than the population growth of 18.7% during the period 1991-2001. As of 2011, Kanker ranks 18th amongst all the districts of Chhattisgarh in terms of population. The population density & urban share of population in Kanker is much lower than the state. About 61.6% of the population is in the working age population class group.

Table 234: Demographic Indicators of Kanker

Demography	Kanker	Chhattisgarh
Population (2011)	7,48,941	2,55,40,196
Population 15-24 (2011)	1,51,020	49,89,339
Decadal Population Growth Rate (2001-11)	15.1%	22.6%
Population density per sq. km (2011)	105	189
Percentage of Urban Population (2011)	10.3%	23.2%
Percentage of SC population (2011)	4.2%	12.8%
Percentage of ST population (2011)	55.4%	30.6%
Average household size	4.65	4.54
Sex Ratio (2011)	1006	991
Working age population (15-59) as a percentage of total population, %	61.6%	60.1%
Per Capita Income (2009)	Rs. 17322	Rs.28263
Source: Census of India 2011; Directorate of Economics and Statistics- Govt. of Chhattisgarh; Deloitte Analysis		

Key Observations:

- ♦ The sex ratio of Kanker at 1006 females per 1000 males is significantly higher than the state average of 991.

4.14.3 Economic Profile

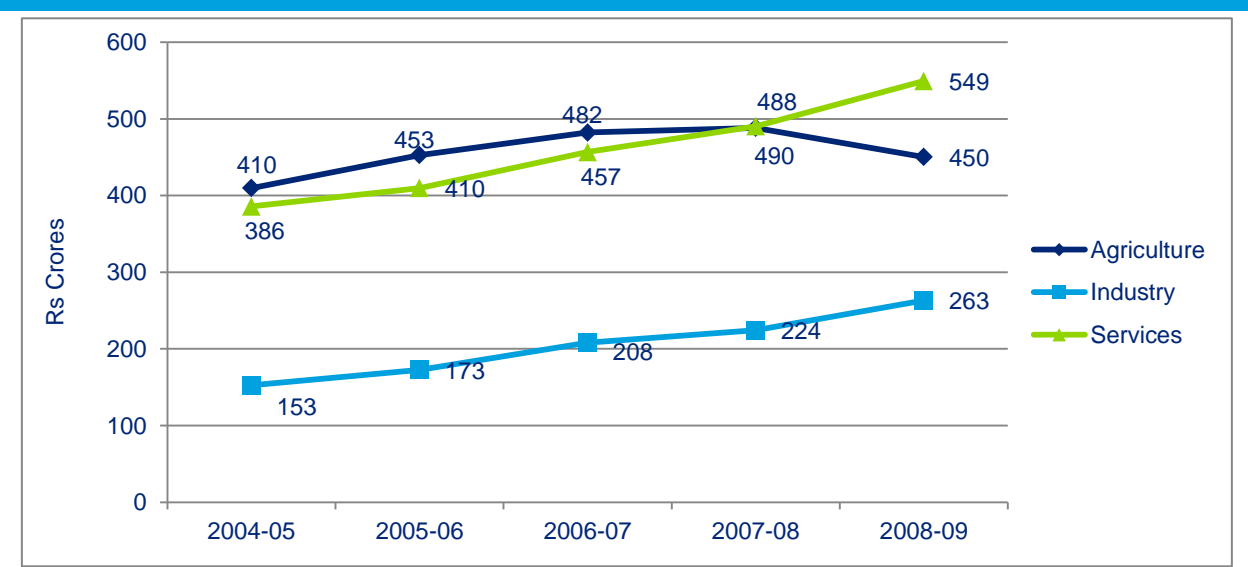
Gross District Domestic Product (GDDP) of Kanker in the period 2005-09 has grown at the rate of 7.4% which is less than the state growth rate of 9.6% in the corresponding period.

At Rs 1262.89 crores, Kanker ranked 17th in the state in terms of economic activity in 2009. Kanker contributed 1.83% to the Gross State Domestic Product in the same year.

The economy of Kanker district is pre-dominantly Services sector based with its share in GDDP being 43.5% in 2008-09. It is followed by the Agriculture sector and Industry sector, with a sectoral share of around 35.7% and 20.8% respectively in 2008-09. In terms of absolute growth, the Industry sector has shown the highest growth rate over the period 2005-2009 with a CAGR of 14.6%, as compared to Services (9.2%) and Agriculture (2.4%) sectors respectively.

The sector-wise GDDP growth and distribution from 2005-09 is given in the figure below:

Figure 251: GDDP contribution of different sectors from 2005-09, Kanker



Source: Directorate of Economics and Statistics, Govt. of Chhattisgarh

Agriculture sector

The contribution of Agriculture sector (agriculture, forestry & logging and fishing) to GDDP was 35.7% in 2008-09. Agriculture is the main contributor in the total output of the agriculture and allied sector contributing about 79% in the year 2008-09.

A different type of agriculture known as Marhan or Dippa is practiced in Kanker where the farmers living near forests cut the trees before rainy season and prepare the land for planting crops. After one or two years, they prepare a new farm and leave the old one. The chief agricultural crop of the area is Rice. Other key crops include Wheat, Sugar cane, Gram, Kodo, Moong, Tilli and Maize. Kanker is a NFSM district for pulses. In terms of horticultural produce, the inhabitants grow varieties of vegetables and fruits like Mangoes, Bananas etc.

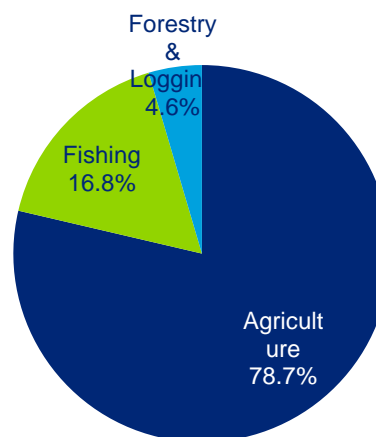
Another major source of income for the people in the district is collection of forest produce. As per our primary interactions, collection of Tendu leaves is an important livelihood activity for the inhabitants of the district. About half of the district is covered by forests. Forests comprising of Sal and Teak are found in eastern parts of the district and Bhanupratappur respectively. Kanker falls under the Kanker forest circle and the important non-nationalized species available in the district are Kusum (Lac), Palash, Imli, Mahua, Kusum (Oil Seed), Chironjee and Bachandi. Besides medicinal plants, other plants like Saja, Tendu, Dhaura, Bija, Harra, Mahua etc. are also found in the district.

Industry sector

The Industry sector (mining, manufacturing, construction, and electricity, gas & water supply) contributed 20.8% to the GDDP in 2008-09. Construction is the major contributor within the Industry sector, with a sectoral share of about 63% in 2008-09. The total budgeted value for ongoing building and construction activities (building and roadwork) in Kanker for the year 2013-14 is allocated at Rs. 112 crores³⁰⁰.

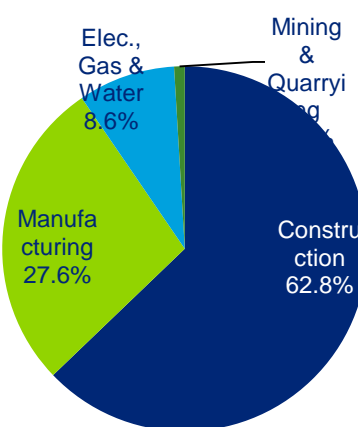
The district economy mainly depends on agriculture and allied activities. However, some micro manufacturing and service enterprises are being set up in the district. Kanker's tribes are famous for their excellence in making exotic handicrafts with a variety of designs and shapes. Good quality wood is readily available in the

Figure 252: Sub-sectoral break-up in Agriculture sector (2008-09), Kanker



Source: Directorate of Economics and Statistics- Govt. of Chhattisgarh

Figure 253: Sub-sectoral break-up in Industry sector (2008-09), Kanker



Source: Directorate of Economics and Statistics, Govt. of Chhattisgarh

³⁰⁰ Chhattisgarh Public Works Department

district owing to the forest cover which is used as a raw material for preparing attractive wooden-carving crafts and various types of furniture. The major handicrafts manufactured in the district include wood-carvings, bell-metal items, terracotta items, bamboo items etc. These wooden crafts are made out of the finest teak wood and white wood and include furniture, carvings, models, idols, wall panels etc. The handicrafts are exported to different places of the country as well as foreign countries. The tribes also make excellent bamboo crafts which include wall hangings, table lamps, table mats etc. There are about 80 handicraft clusters in Kanker, which is the highest in the state³⁰¹. The investment in micro and small enterprises in the district is captured in the figure below. The key industries in the MSME sector mainly include agro based industries.

Figure 254: Employment and Investment (in Rs. lakhs) in micro and small enterprises, Kanker



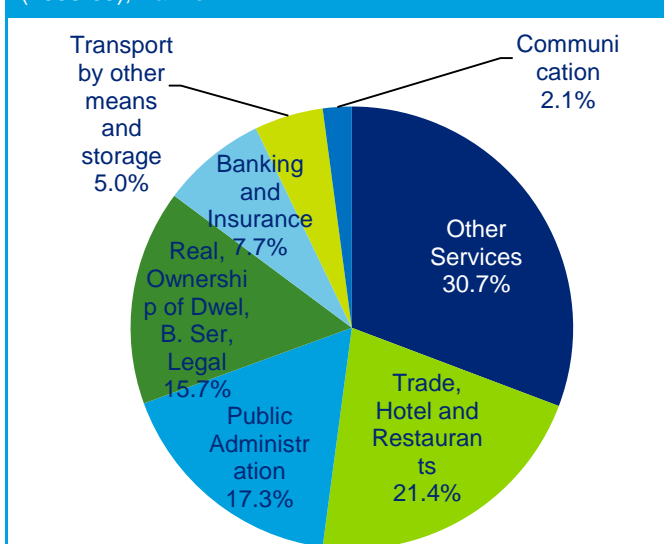
Source: Ministry of Micro, Small and Medium Enterprises, Government of India, 2011-12

Deposits of Iron ore, Quartzite and Garnet have been found in Bhanupratappur and southern region of Kanker district. Black and white granite is also found in plenty in the district which is used in the construction of building materials and preparation of shaped stones. In Markatola of Kanker district and in Barchhegondi region, Silimanite/ Kyanite deposits have been identified. Surveys are being conducted in regards to small gold deposits found in Sona dehi, Michgaon and in some other region of Bhanupratappur Tehsil. The total mineral revenue receipt of the district in 2012-13 was around Rs. 4571 lakhs (major minerals: Rs. 4442.34 lakhs, minor minerals: Rs. 125.67 lakhs & others Rs. 2.90 lakhs).

Services sector

The Services sector contributes to about 43.5% of the GDDP in the year 2008-09. The key

Figure 255: Percentage contribution to the Services sector (2008-09), Kanker



Source: Directorate of Economics and Statistics- Govt. of Chhattisgarh

³⁰¹ Chhattisgarh Handicrafts Sector Profile, Chhattisgarh Handicrafts Sector Meet-2012

contributor to the sector (30.7%) is other services which includes education and skill development, healthcare services and social work and select informal sectors. Trade, hotels and restaurants with a sectoral contribution of 21.4% also helped in the growth of this sector. Places like Gadiya Mountain, Malanjhkudum Waterfall, Charre-Marre Waterfall and Shivani temple provide tourist attractions in the district. The national highway NH-43, which connects Raipur (Chhattisgarh) with Nataravasa (Andhra Pradesh) passes through the district.

With a CAGR of about 16.1% and 19.8% over the period from 2004-2009, communication and banking & insurance sectors respectively were among of the fastest growing sectors in the district, though their absolute sizes are small.

Key Observations:

- ♦ The economy of Kanker district is pre-dominantly Services sector based with its share in GDDP being 43.5% in 2008-09. It is followed by the Agriculture sector and Industry sector, with a sectoral share of around 35.7% and 20.8% respectively in 2008-09.
- ♦ In terms of absolute growth, the Industry sector has shown the highest growth rate over the period 2005-2009 with a CAGR of 14.6%, as compared to Services (9.2%) and Agriculture (2.4%) sectors respectively.

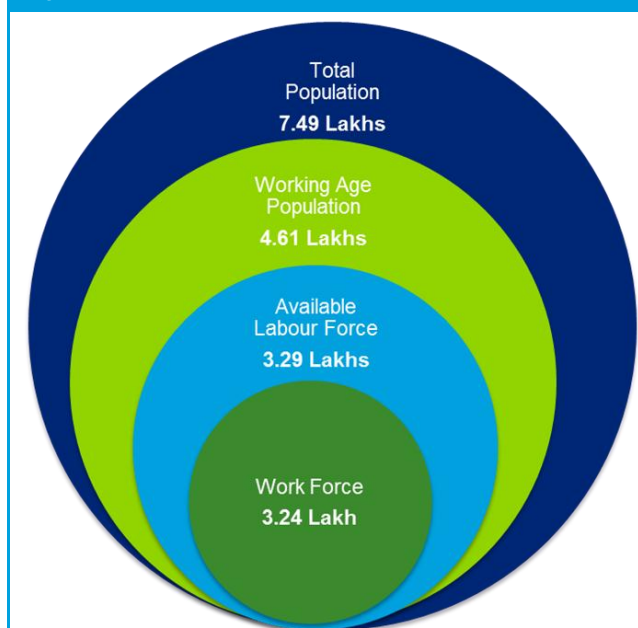
4.14.4 Employment Profile

With a population of 7.49 lakhs in the year 2011, Kanker accounts for nearly 2.9% of the state's population. The adjacent figure depicts the estimated workforce in Kanker in the context of the population of the district. Out of the total population of 7.49 Lakhs, the working age population (between 15-59 age group) constitutes nearly 61.6%.

Based on the labor force participation rate and the worker participation rate estimates for the state, the district's available labor force is estimated to be 3.29 lakhs, and the workforce is estimated at 3.24 lakhs which accounts to 70% of the working age population.

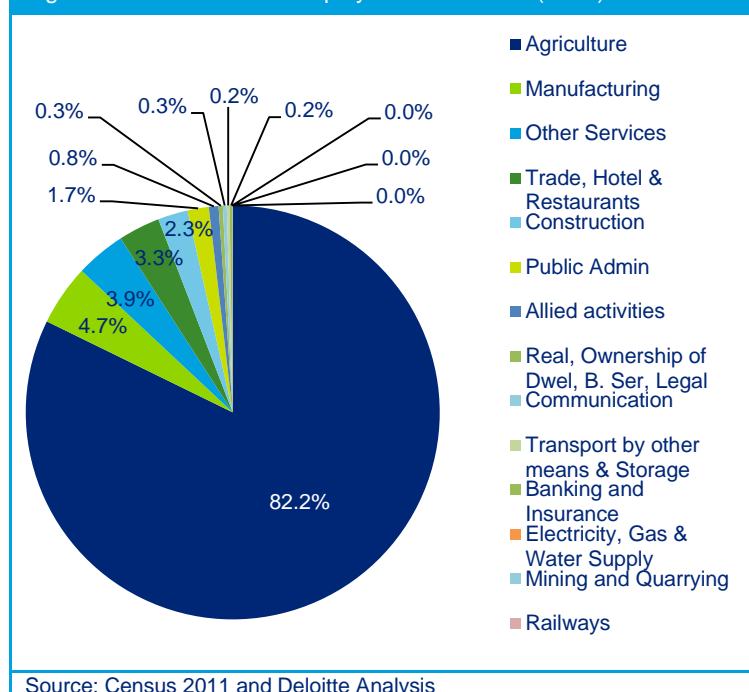
Agriculture sector was the highest employer in the district in 2011 employing around 83.0% of the total available workforce though the sectoral contribution in the district economic profile during

Figure 256: Total Workforce in Kanker (2011)



Source: Census 2011 and Deloitte Analysis

Figure 257: Sector wise employment in Kanker (2011)



Source: Census 2011 and Deloitte Analysis

for the year 2011. Agriculture is the chief employer in Kanker accounting for around 82.2% of the total employment in the district followed by manufacturing (4.7%), other services (3.9%), trade, hotels and restaurants (3.3%) and construction (2.3%). The top five sectors in the district in terms of employment account for more than 96% of the total employment of the available workforce in Kanker in 2011.

the same period was least at around 30.5% of the Gross District Domestic Product.

While the Services sector contributed around 35.4% to the GDDP in the year 2011, it employed around 10% of the total available workforce. Services sector was the 2nd highest employer in the district in 2011 while in terms of economic activity it was the chief contributor to the GDDP closely followed by Industry sector.

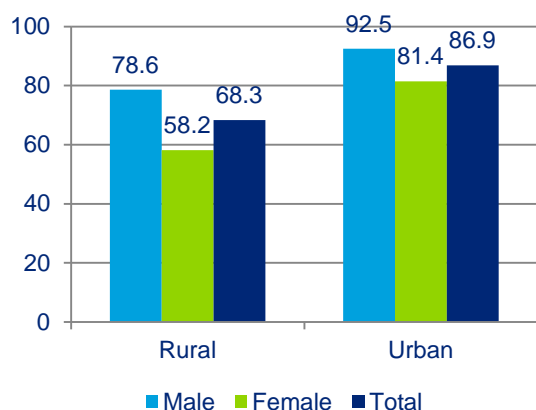
The Industry sector contributed around 34.1% to the GDDP in 2011 and employed approximately 7.1% of the total available workforce thereby assuming 3rd position in Kanker in terms of employment share.

The adjoining figure summarizes the sector-wise employment share in Kanker

4.14.5 Education Infrastructure

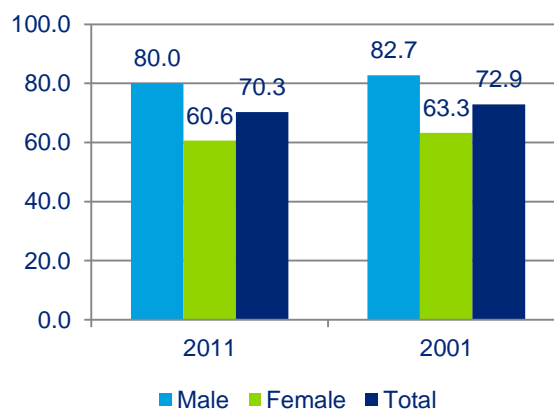
The literacy rate in Kanker was 70.3% in 2011 which is almost equal to the state's literacy rate of 70.3% in 2011 and is slightly lesser than the all-India literacy rate of 73%. In 2011, male and female literacy rates stood at 80.0% and 60.6% respectively showing high gender disparity.

Figure 258: Literacy rate 2011 (by residence), Kanker



Source: Census of India 2011

Figure 259: Literacy rate (by Gender), Kanker



Source: Census of India, 2001 and 2011

School Education

Kanker has 1677 primary schools, 675 upper primary schools, 139 secondary schools and 105 higher secondary schools. Net enrolment ratio (NER) at the upper primary level (59.4%) is considerably low than the state NER of 67.8%.

Table 235: Status of school education infrastructure in Kanker, 2013

#	Educational Statistics	Units in Kanker	Units in Chhattisgarh	% Share of District in State
1	Primary School	1677	35588	4.7%
2	Upper Primary School	675	16442	4.1%
3	Secondary School	139	2632	5.3%
4	Higher Secondary School	105	3548	3%
5	NER (Primary) (2010-11)	94.7%	98.0% ³⁰²	-
6	NER (Upper Primary) (2010-11)	59.4%	67.8%	-

Source: DISE 2012-13

Vocational Education

For vocational training, Kanker has a total of 7 ITI's in the district, of which 6 are Government Industrial Training Institutes while 1 is Private Industrial Training Institute. Kanker has a woman ITI. The total capacity of the ITIs in the district is 960. The capacity of the Govt. ITIs is 768 while that of the private ITIs is 192. Electrician and computer operator and programming assistant courses have the maximum units

³⁰² Data is for 2008-09

affiliated among ITIs. The number of courses available in the Govt. & Pvt. ITIs and their capacity are listed in the table below:

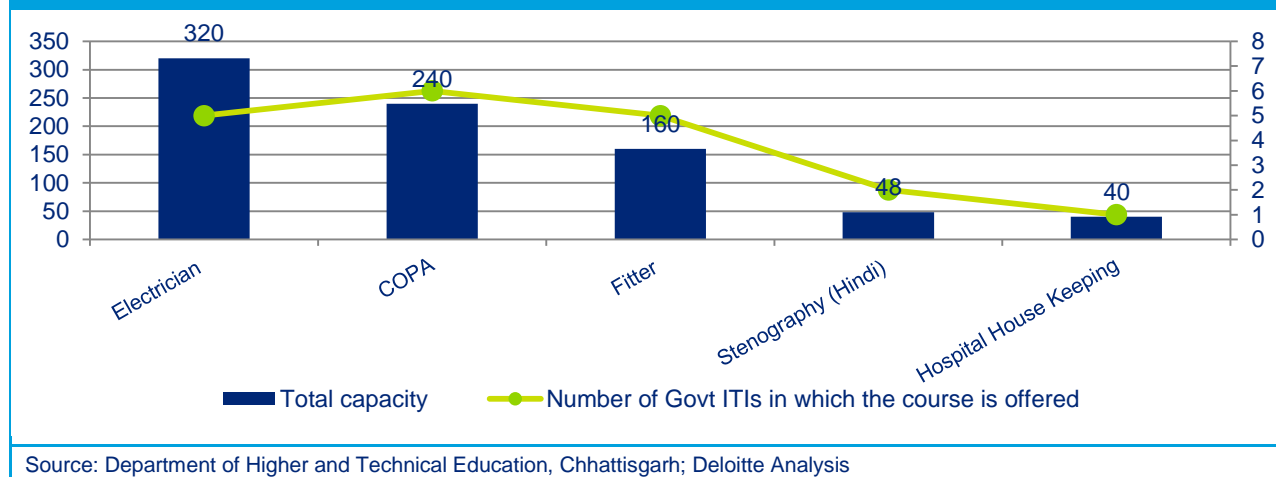
Table 236: ITIs in Kanker and their training capacity

Name of ITI	Number of courses offered	Total Units affiliated	Total Capacity
Government Industrial Training Institute for Women, Kanker	6	10	176
Government Industrial Training Institute, Kanker	3	6	104
Government Industrial Training Institute, Pakhanjur	3	6	104
Government Industrial Training Institute, Bhanupratappur	2	4	72
Government Industrial Training Institute, Antagadh, Kanker	5	10	168
Government Industrial Training Institute, Charama	5	9	144
Agarsen Industrial Training Centre, Kanker	1	12	192
Total	11*	57	960

Source: Department of Higher and Technical Education, Chhattisgarh; Deloitte Analysis
 *Total number of different courses offered by ITI's in Kanker

The major courses offered in the ITIs and their training capacity in Kanker is given in the figure below:

Figure 260: Major courses offered in ITIs and their capacity in Kanker



According to the Chhattisgarh State Skill Development Mission Website, as of 12th March 2014, Kanker has **83 Vocational Training Providers (VTPs)** under which 1602 beneficiaries have been registered.

The following table highlights the courses offered in vocational education, which currently meet requirements of 12 sectors.

Table 237: Courses offered in vocational education, Kanker

Sector	ITI trades and Units affiliated	Courses Offered by VTPs
Auto and auto components Electronics and IT hardware	Electrician(20), Fitter(10), Mechanic (2), Welder(2),	Electrical, Electronics, Fabrication, Automotive Repairs
IT and ITES Tourism, hospitality and travel Banking, financial services and insurance	Computer Operator and Programming Assistant(12), Stenography(3), Driver cum mechanic (1)	ICT, IT, Travel & Tourism, Soft skill,
Textiles and clothing Leather and leather goods Food processing	Cutting and Tailoring(1) Dress making (2)	Garment making, Bamboo Fabrication, Toy making, Handmade paper & Paper Product, Indian Sweets Snacks and Food, Food processing and preservation, Textiles Silk, Sericulture
Building, construction and real estate		Construction
Healthcare Services Education and skill development Unorganized sector (particular reference to agriculture, security, plumbing, domestic worker, foundry, etc.)	Hospital housekeeping (2), Library & Information Science (2)	Beauty culture and hair dressing, Agriculture, Fisheries & Allied
Source: CSSDA		

The following table highlights the NSDC partners currently present in Kanker as of January 2014 & the courses offered by them.

Table 238: NSDC partners present in Kanker

Name of Partner	Sectors in which course is offered	Courses offered
AISECT	IT/Software	<ul style="list-style-type: none"> ♦ Diploma in Computer Applications (DCA) ♦ Post Graduate Diploma in Computer Applications (PGDCA) ♦ Certificate in Data Entry Operator (CDEO) ♦ Diploma in Computer Programming and Applications (DCPA) ♦ Certificate in Word Processing / Typewriting (Hindi/English) (CWP) ♦ Certificate in Computerised Financial Accounting (CCFA)
	ITES-BPO	<ul style="list-style-type: none"> ♦ Diploma in Computer Applications (DCA) ♦ Post Graduate Diploma in Computer Applications (PGDCA) ♦ Diploma in Computer Programming and Applications (DCPA) ♦ CCFA
	Electronics & IT Hardware	♦ WGS
	Healthcare	♦ BSPA
	Automobile	♦ Automobile/Auto Components

	Organized Retail	♦ CRS
Source: NSDC		

Higher Education

The status of higher education in Kanker is not very promising. Out of a total 590 colleges in the state, only 8 colleges are in Kanker indicating the district's share in the higher education space of the state at just 1.4%. This is lower in comparison to the share of population of Kanker to the state (2.9%). Out of the 8 colleges present in the district, around 7 offer general degree courses while 1 is an agriculture college. There is no technical, management, medical or nursing colleges in the district.

Table 239: Number and Capacity of Higher Education infrastructure in Kanker

#	Colleges	Number	Estimated Capacity*
1	Arts, Science and Commerce	7	-
2	Agriculture	1	24
	TOTAL	8	-
*Source: University/College websites			

Key Observations:

- ♦ There are a total 7 ITI's and 83 VTPs active in the district.
- ♦ With 39 colleges in the district, the share of Kanker in the higher education space of the state is just 1.4%.

4.14.6 Youth Aspirations

Youth population constitutes the most important demographic section for a district from a skills development perspective. In the process of capturing the aspirations of the youth population in Kanker, focused group discussions were held with youth from educational institutions as well as residing in rural areas to understand their concerns, areas of interest and future dreams and goals. The youth survey in Kanker was conducted at the Government Industrial Training Institute for Women; Government ITI and Institute of Skill Education. The FGD was conducted at the Gram Panchayat Bhavan, Kanker. 30% of the respondents were in the age group 15-20 while 65% of them were between 21-25 years. Remaining 4% of the respondents were 26 years and above. In terms of gender representation, around 33% of the participants were females and 67% were males. The educational qualification of about 46% of the participants was high-school level or below. Around 20% of them were graduates and above with the remaining 35% participants being certificate holder.

The key observations about aspirations of the youth of the district are highlighted below.

Table 240: Youth Aspiration – Key Responses – Kanker

Parameters	Responses
Job Preference	Most of the youth preferred Government jobs over private jobs due to the job security offered in a Government job.
Preferred Course	<ul style="list-style-type: none"> Women are interested in job oriented courses like beauty parlor, tailoring and sewing, engineering, home science etc. Teaching is also one of the preferred professions amongst the women. Boys are interested in learning computer related courses and new agriculture related techniques. Some are interested in mobile repairing, driving etc. as well.
Migrating for job	Most of the youth (59%) prefer jobs within the district . Since the job prospect within the district is low, they are forced to migrate to cities like Raipur, Durg etc.
Salary Expectations	Average monthly salary expectation of youth ranges between Rs 7,000 –15,000/-
Areas of concern/ aspirations- Infrastructure	<p>Following views were expressed regarding infrastructure in educational institutions:</p> <ul style="list-style-type: none"> Youth reported poor quality of infrastructure in the institutes in terms of books in the library, building, laboratories etc. The need of hostel facility was also pointed out by the youth.
Areas of concern/ aspirations-Course Curriculum	<ul style="list-style-type: none"> Rural youth expect free computer training, free coaching for competitive examination and training camps within the district. Youth feel that institutes should focus more on soft skill and language training besides technical know-how, and it is critical for getting a good job. Local industries should train people on apprenticeship/ intern model to improve job prospects.
Other concern	<ul style="list-style-type: none"> It was also learnt that youth are not aware about the newly introduced Govt. initiatives on skill development such as VTPs (MES/ SDI scheme) and NSDC training partners. A very few of the respondents preferred to be self-employed.
Suggestions given by youth	<ul style="list-style-type: none"> The youth expect Govt. to take up initiatives to improve college infrastructure. Youth expressed that Govt. should take measures to provide proper education facilities to the poor people. There should be more courses, practical classes, resourceful, efficient and regular teachers available in the institutes. English, Hindi or both must be used as the medium of teaching.

A sample survey was conducted with youth at gram panchayat level & those coming out from various educational institutions (Government & private) to understand & capture their aspirations. The findings are presented below:

Job preference by youth

The majority of the youth surveyed (59%) **desire to choose employment opportunity within their home district** as is highlighted in the adjacent figure. Approximately 27% of them preferred to work within Chhattisgarh. Hence, the survey highlights a very important fact that around **86% of the youth surveyed wanted to get a job within Chhattisgarh** thus necessitating the creation of suitable positions and absorption capacity for them in the employment market.

Parameter for Institute Selection

A majority of the students surveyed (89%) selected an institute for higher education to seek better employment opportunities. Around 11% of the respondents quoted the **availability of better teaching facilities in the educational institution** as their prime parameter while selection of an institute for higher education.

Youth Perception Mapping

Youth perception mapping was undertaken to understand the level of satisfaction amongst the youth with either their current institute or their experience and feedback on the available educational infrastructure. The results are summarized below:

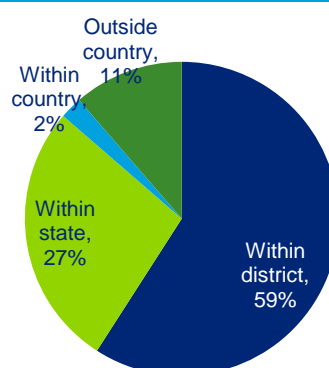
Low satisfaction with placement / jobs available post training: Around 82% of the students surveyed expressed their dissatisfaction with the placement opportunity available in the institute or jobs available post training within the district. They shared their expectation of being provided with sufficient employment opportunities by the institute.

Non-availability of latest technologies and equipment for training: 71% of the students surveyed expressed their dissatisfaction with the availability of latest technology & equipment for training in the institute. The students highlighted the need for adequate number of computers in the institute for training. They demanded that the institutes should be adequately equipped and upgraded with latest technology.

Dissatisfaction with capability of institute's faculty in teaching: Around 67% of the students feel the **quality of teaching by faculty** is not satisfactory and needs improvement. They suggested inviting guest lecturers/visiting faculty from industry for providing inputs on the latest trend in the sector.

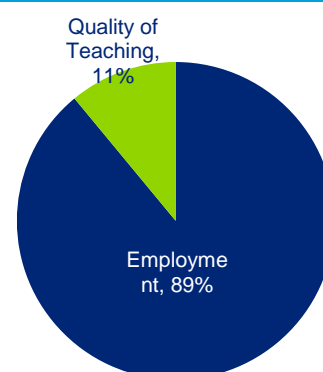
Need for better access to information to make an informed career choice: More than 3/4th of the students surveyed were dissatisfied with their access to information to make an informed career choice. The concern was raised more by the rural youth who reported the **absence of appropriate facility/linkages and thought leaders in their locality to get suggestions and guidance on career**.

Figure 261: Job Preference by Youth



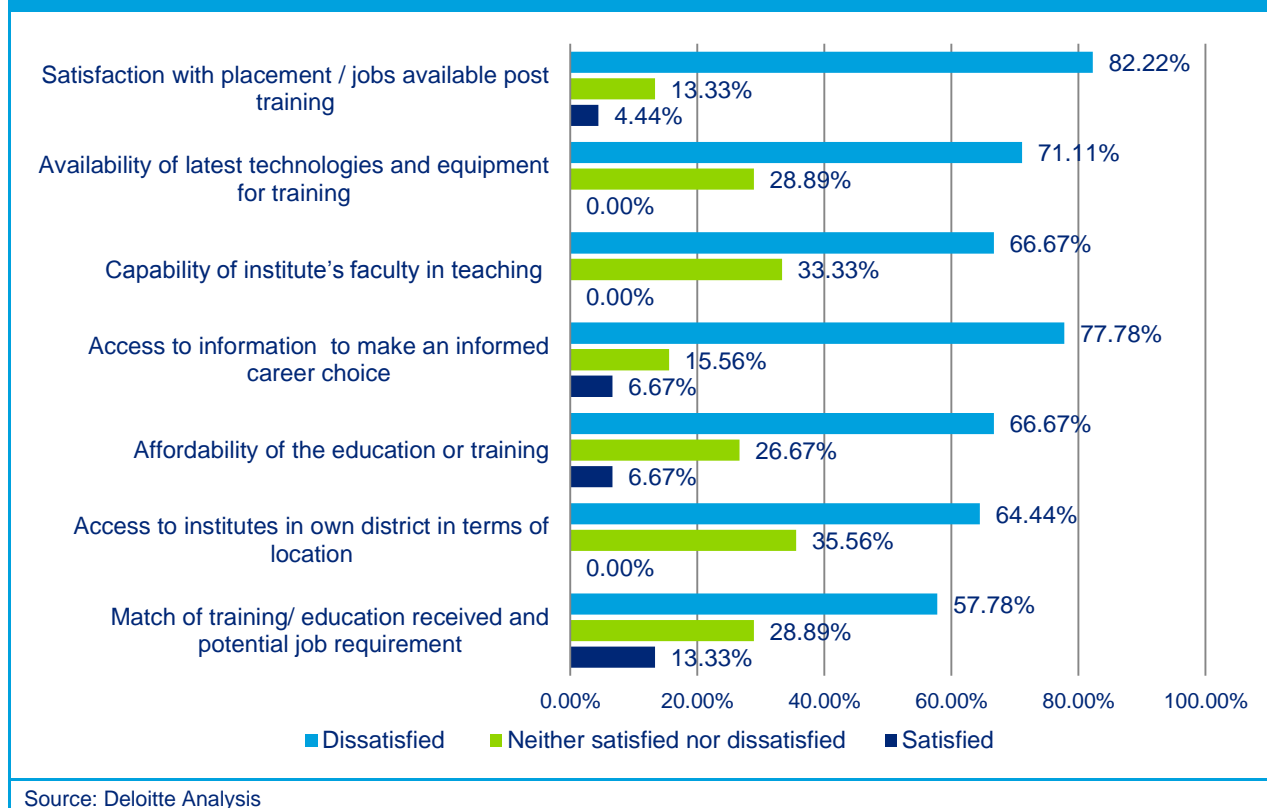
Source: Deloitte Analysis

Figure 262: Parameter for Choice of Institute



Source: Deloitte Analysis

Figure 263: Youth Perception Mapping, Kanker



Affordability of the education a concern for the students: Majority of the students surveyed (around 67%) felt that the fee charged by the education/ training institute is a concern for them. Moreover, they emphasized that the quality of training programme offered should be commensurate with the fees charged.

Access to institutes is an issue in rural areas: 64% of the students surveyed felt the educational institutes to be inaccessible in terms of location and majority of them were rural youth. The rural youth voiced the government to support them by arranging suitable transport facility.

Dissatisfaction with the alignment of training/education received with job requirements: Approximately 58% of the students surveyed emphasized that there is a need to align the training/education provided by the educational institutes in the district in terms of job requirements of the business. 13% of the youth felt that the training/ education received by them matches the potential job requirements of the employers.

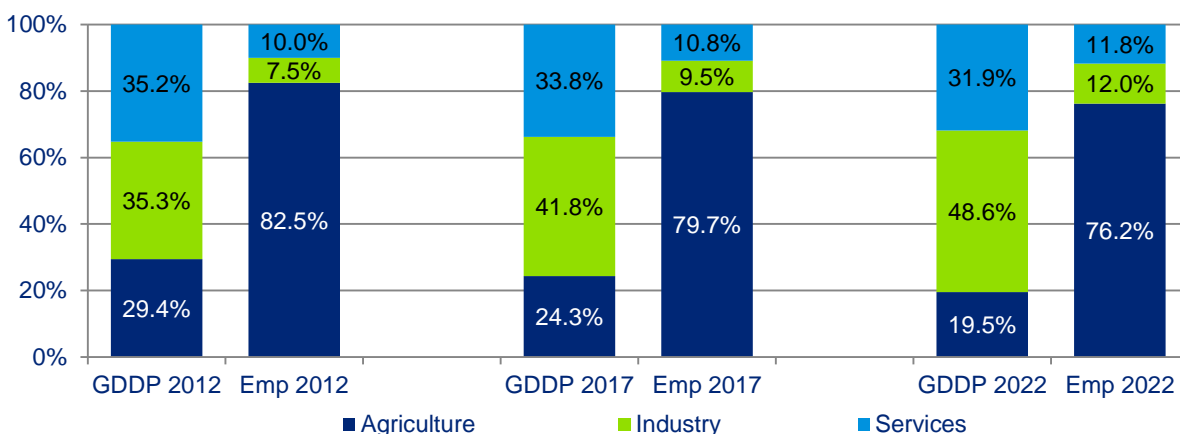
Key Observations:

- ♦ Govt. Jobs were preferred over private, the expected salary ranges from Rs. 7,000- Rs. 15,000/-.
- ♦ Around 86% of the youth surveyed wanted to get a job within Chhattisgarh thus necessitating the creation of suitable positions and absorption capacity for them in the employment market.
- ♦ The majority of the students surveyed (89%) select an institute for higher education to seek better employment opportunities. Around 11% of the respondents quoted the availability of better teaching facilities in the educational institution as their prime parameter while selection of an institute for higher education.
- ♦ In terms of course preference, women are interested in job oriented courses like beauty parlor, tailoring and sewing, engineering, home science etc. Teaching is also one of the preferred professions amongst the women. Boys are interested in learning computer related courses and new agriculture related techniques. Some are interested in mobile repairing, driving etc. as well.
- ♦ Need to address Infrastructure gaps - particularly updating the library and laboratory with latest computers, tools and equipment was expressed.
- ♦ The need for career counseling prior to admissions was strongly expressed by the youth.

4.14.7 Skill Gap Assessment

The working age population (15-59) constitutes 61.6% of the total district population in 2011 and is expected to increase to 64.6% by 2022. Demand for jobs is expected to increase leading to the need for job creation. Similarly, to reap this demographic dividend, supply of labor must be adequately skilled.

Figure 264: Comparison of Sectoral share in GDDP & Employment, Kanker



Source: Deloitte Analysis

The above figure depicts the significant disparity in the structures of economy and employment in the district. The Agriculture sector despite having the lowest contribution in the district economic profile accounts for the largest share of workforce. Moreover, its relative contribution to the economic output is expected to diminish over the decade however in terms of employment it is still anticipated to be the major employer in the district. The rate of decrease of economic contribution of agriculture and allied sector is faster than the rate of decrease of employment. This phenomenon is typical of the economy-employment structures in most districts and states in India. It indicates the significant task ahead in aligning employment with the economic output.

Incremental Human Resource Demand

As per the methodology, the total incremental demand for manpower in Kanker over the period 2012-22 is expected to be around 0.73 lakh. Following table provides the break-up of the incremental demand for manpower in Kanker as per the skill levels required.

Table 241: Estimated Incremental Human Resource Demand ('00) by Skill Level in Kanker

	2012-17	2017-22	Total
Skilled	46	60	106
Semi-Skilled	89	116	205
Minimally Skilled	194	223	417
Total	328	400	728

Source: Deloitte Analysis

Some of the key trends observed on the demand side include

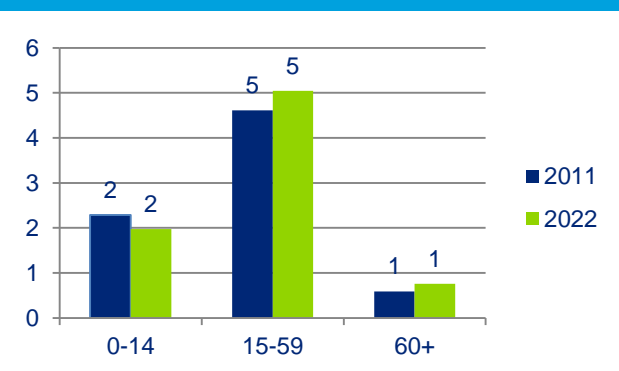
- ♦ *Agriculture will be the largest incremental demand generating sector (41.7%) with demand largely in the minimally skilled level.*
- ♦ *The building and construction sector is estimated to be the next important segment in the district in terms of demand for incremental employment (18.2%) wherein the share of skilled, semi-skilled and min. skilled is projected to be around 15%, 40% and 45% respectively.*
- ♦ *Analysis of formal and informal employment indicates that the incremental demand for manpower in formal sector would come mainly from Building and Construction, Public Administration, BFSI, Education/Skill Development Services and Trade (retail + wholesale).*
- ♦ *Majority of demand for incremental manpower in the informal sector is projected to come from Agriculture, Building and Construction, Food Processing, manufacturing units (primarily mineral/metal based) and furniture and furnishings.*

Table 242: Incremental Human Resource Demand ('00) by Skill Level in Kanker - Key Sectors

#	Key Sectors	2012-17				2017-22			
		Skilled	Semi-skilled	Minimally Skilled	Total	Skilled	Semi-skilled	Minimally Skilled	Total
1	Agriculture	5	15	131	150	5	16	137	157
2	Building and Construction	8	21	24	52	12	32	36	80
3	Food Processing	2	6	13	21	3	8	16	27
4	Handloom and Handicrafts (including Furniture & Furnishing)	2	10	5	16	2	12	6	21
5	Manufacturing (mineral/ metal based)	3	9	3	15	4	12	4	20
6	Trade (Retail + Wholesale)	2	7	5	14	2	8	6	16
7	Others	24	20	14	59	33	28	18	79
	Total	46	89	194	328	60	116	223	400
	Overall Incremental Demand				728				
Source: Deloitte Analysis									

Incremental Human Resource Supply

Figure 265: Age wise distribution of population, 2011 and 2022 (projected) – Kanker



Source: Census 2011 and Deloitte Analysis

The population of Kanker is expected to increase from 7.49 lakhs in 2011 to 7.78 lakhs in 2022. The adjacent figure provides the distribution of current and projected population across various age groups. As per the analysis, the number of children in 0-14 age group is projected to fall by about 14% over the period 2011 to 2022. On the other hand, the number of persons in the working age group is expected to increase by around 9% registering thus an increment of 0.4 lakh working group people during the same period. This represents a potential demographic dividend for the district with an increase in the employable

population. On the other hand, it presents a huge challenge for the state to make available higher education and skill development facilities as well as ensure productive employment opportunities for its working age population.

As per the methodology, the estimated incremental manpower supply over a period of 10 years (2012-22) will be about 0.98 lakh. Incremental manpower supply can be further classified into skilled, semi-skilled and minimally- skilled as per the education qualifications and estimated output of educational and vocational training institutes in the district.

Table 243: Estimated Incremental Human Resource Supply ('00) by Skill Level in Kanker

	2012-17	2017-22	Total
Skilled	44	45	89
Semi-Skilled	175	180	355
Minimally Skilled	268	263	531
Total	487	488	976

Source: Deloitte Analysis

Some of the key trends observed on the supply side include

- Proportion of incremental supply of minimally skilled manpower is projected to be the highest in the district amounting to a share of around 55% followed by semi-skilled (36%) and skilled (9%) workforce.
- The share of Kanker in the higher education space of Chhattisgarh is just 1.4%. This also reflects in the proportion of skilled workforce in the district which is anticipated to be the least (9%) and is likely to remain constant over the decade.
- The supply of semi-skilled workforce is estimated to increase over the decade which is in-line with the current focus of government in improving the skill development space of the state.
- Impact of Migration is expected to be inward from other states and districts primarily across minimally skilled category and accounts for around 0.7% of the total supply in the district.

Incremental Demand Supply Gap

During the period 2012-22, the incremental human resource demand in Kanker across all skill levels is estimated to be 0.73 lakhs while the supply is projected to be 0.98 lakhs indicating thus a surplus of 0.25 lakh people (refer table below). There is estimated to be an additional demand across skilled segment with an excess supply expected in the semi-skilled and minimally skilled segments.

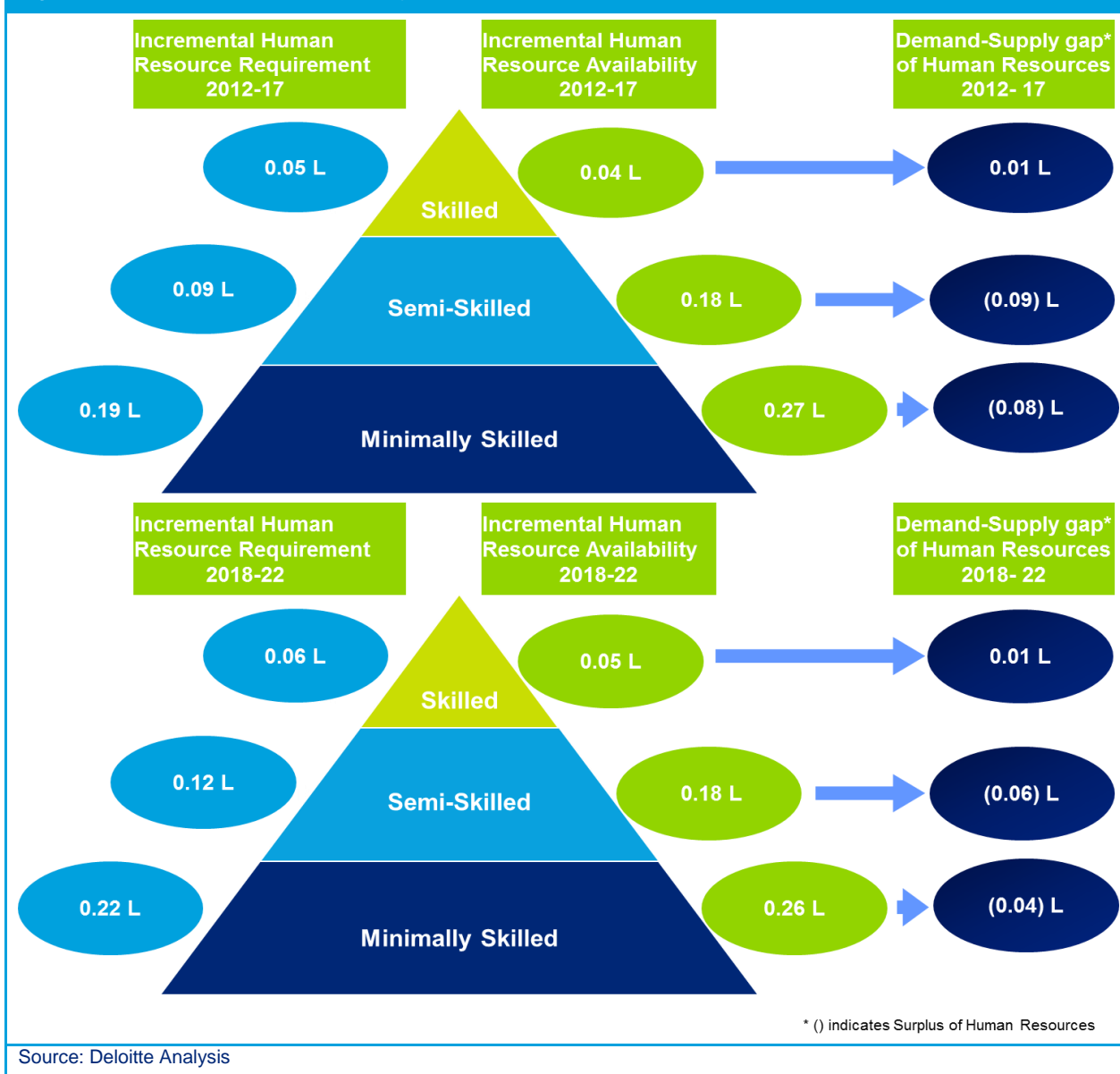
This means the rate of creation of employment in the district has to be augmented with suitable government initiatives in order to absorb the supply of workforce projected to enter the job market. Moreover, it also indicates a potential for skilling the semi-skilled and minimally skilled workforce and shift them to the more productive job roles assumed at the higher skill level respectively.

Table 244: Projected Demand Supply gap ('00) by skill levels in Kanker

#	District Skill Gap	2012-17				2017-22			
		Skilled	Semi-skilled	Min. Skilled	Total	Skilled	Semi-skilled	Min. Skilled	Total
1	Incremental HR Requirement (Demand)	46	89	194	328	60	116	223	400
2	Incremental HR Availability(Supply)	44	175	268	487	45	180	263	488
3	Demand-Supply Gap	2	(86)	(74)	(159)	15	(64)	(40)	(89)
	Overall Demand-Supply Gap				248				
Source: Deloitte Analysis									

During the period 2012-22, the incremental manpower demand supply gap of the district (across all sectors mentioned above) is expected to be a surplus of about 0.25 lakh people with the excess supply across the semi- skilled and minimally skilled segments as shown in the following figure.

Figure 266: Incremental Demand-Supply Gap (in lakhs) , Kanker



Some of the key trends observed on the demand-supply gap include

- ♦ The composition of the human resource demand supply gap over the two different time periods i.e. 2012-17 and 2017-22 is anticipated to remain the same.
- ♦ The excess demand of skilled resources in the district is expected to continue over the decade and increase in future. This is in line with presence of few higher education institutes in the district. Moreover, there seems to be **mismatch between outputs** from higher educational institutions in the district (87% in general degree courses) **to job specific skills** required by sectors having high demand for skilled labor.

- Due to the excess demand of skilled workers, the existing semi-skilled work force in the district can be skilled appropriately to move to the next productive employment opportunity.
- The trend of excess supply is likely to continue in the semi-skilled and minimally skilled segments across both the periods. However, primary interactions have raised **employability & deficit in specific jobs/ skills amongst workers** as major concerns. These have been captured in the qualitative skill gaps section below. In terms of educational qualification, approximately 77% of the total semi-skilled workforce is estimated to be class 12 pass outs.

Qualitative Skill Gaps

The qualitative skill gaps that were highlighted during our primary interactions with industry at Kanker are provided in the table below.

Table 245: Qualitative Skill Gaps

Sector	Level	Skill Gap
Agriculture	Tractor operator and mechanics/ Electricians/ Mechanics for repair & maintenance of agricultural tools & implements	<ul style="list-style-type: none"> • Sufficient training to address tool & equipment failures like motor pump failure, gear damage, tyre puncture etc.
	Project Managers/Engineers	<ul style="list-style-type: none"> • Knowledge of design and tools such as AutoCAD etc. • Knowledge of green/eco-building design • Project Management and People Management Skills • Knowledge of appropriate safety practices
Building & Construction	Supervisors: plumbing, electrical, carpentry, masonry, drilling	<ul style="list-style-type: none"> • Skills in civil- operations of ready mix m/c, earth movers, etc. • Basic repair and maintenance • Exposure to right methodology in construction specific skills like lining, leveling etc. • Site safety concepts and procedures
	Workmen: plumbing, electrical works, carpentry, masonry, drilling	<ul style="list-style-type: none"> • Basic operating skills related to relevant category • Improved/ better quality in finishing • Site safety concepts and procedures • Ability to understand & follow instructions/ manuals
	Procurement Managers	<ul style="list-style-type: none"> • Ability to forecast demand and undertake procurement accordingly • Ability to locate and enter into relationships with farmers
Food Processing	Plant Associates and operators	<ul style="list-style-type: none"> • Limited basic engineering knowledge esp. on practical aspects, process knowledge e.g. distillation
	Material Handlers	<ul style="list-style-type: none"> • Limited awareness on quality, health & hygiene awareness • Limited basic computer skills including barcode reading
	Sales and marketing	<ul style="list-style-type: none"> • Limited Communication skills, ability and willingness to understand the manufacturing process
	Machine Operators	<ul style="list-style-type: none"> • Insufficient knowledge of machine operation and use • Ability to understand & follow instructions/ manuals • Limited ability to carry out basic repairs and troubleshooting
Trade (Retail and Wholesale)	Store/Department Manager	<ul style="list-style-type: none"> • Understanding of cross functional activities in the store esp. logistics, marketing and merchandising • People management skills • Vendor Management
	Billing Associate/ Accountants/ Computer operators	<ul style="list-style-type: none"> • Knowledge of transaction processing software & cash management • Knowledge of tally/accounting practice
	Sales/Customer Service personnel	<ul style="list-style-type: none"> • Product specific knowledge • Customer service and Inter personal skills

4.14.8 Recommendations

Future Growth Opportunities in Kanker

In the context of the current economic profile and proposed investments of the district, the demand for human resources at various skill levels has been analyzed. The observations have been augmented by primary interactions with industry & industry association representatives in the district and government officials at the state and district level. Based on our analysis and considering factors like high growth and employment potential, priority sector for the state government, investment trends, etc., the following sectors/industries have been identified with future growth opportunities for employment and subsequently, skill development in Kanker.

Table 246: Key Growth Sectors - Kanker

#	Priority Sectors	Growth opportunities in skills development and employment
1	Agriculture	<ul style="list-style-type: none"> Agriculture and allied activities are currently providing employment to around 82% of the workers in the district & is expected to grow at around 3% over the next decade (2012-22). Agriculture is anticipated to be the residual & largest incremental employer accounting for around 42% of the total incremental demand for manpower. It is expected to provide employment to around 30,345 man power over the decade.
2	Building & Construction	<ul style="list-style-type: none"> Construction is another major contributor in the district economy which contributed around 10% to the GDDP in 2013 and is expected to grow at 14% (2012-22). The total budgeted value for ongoing building and construction activities (building and roadwork) in Kanker for the year 2013-14 is allocated at Rs. 112 crores. Building and construction is projected to be the 2nd largest employer in the district with approximately 18.2% of the total incremental demand for employment estimated to come from this sector providing thus good opportunities for job creation during 2012-22.
3	Manufacturing - Food Processing	<ul style="list-style-type: none"> Agro based industries are one of the key industries in the MSME sector in Kanker with total estimated investments of Rs 1065 lakhs. Food processing is projected to be the 3rd largest employer in the district with approximately 7% of the total incremental demand for employment estimated to come from this sector over the period 2012-22.
4	Manufacturing – Furniture & Handicrafts	<ul style="list-style-type: none"> Kanker is famous for handicraft industry which produces wood-carvings, bell-metal items, terracotta items, bamboo items etc. and also includes furniture, carvings, models, idols, wall panels etc. It is the production cluster for Terracotta and Pottery under the Meta cluster Bastar. There are about 80 handicraft clusters in Kanker, which is the highest in the state. Manufacturing of handloom & handicrafts along with furniture and furnishing account for around 5% of the total incremental manpower demand in Kanker over the decade.
5.	Trade (Wholesale + Retail)	<ul style="list-style-type: none"> Trade (Wholesale+ Retail) is estimated to grow at around 6.7% in the period 2012-22. It is anticipated to be one of the largest employers of the district, contributing to about 4% of the total incremental employment in Kanker. Presence of food processing/ agro based units and handicraft activities boost trade of raw materials as well as finished products in the district resulting in increasing manpower demand in this sector.

Source: Deloitte Analysis

Considering the economic and skill landscape of Kanker, the table below indicates the priority areas of focus for key stakeholders involved. These observations have been mainly derived from the growth opportunities identified above and through primary interactions with industry and industry association representatives in the district along with inputs from the students, training institutes and government.

Table 247: Key Recommendations for Stakeholders - Kanker

Stakeholder	Priority Areas
NSDC	<p>NSDC can focus the efforts of its training partners in the key sectors identified in the district, viz.</p> <ul style="list-style-type: none"> ♦ Agriculture ♦ Building and Construction ♦ Manufacturing – Food Processing ♦ Manufacturing – Handloom & Handicrafts/ Furniture & Furnishings ♦ Trade (Wholesale + Retail)
Private training providers	<ul style="list-style-type: none"> ♦ There is a demand for more courses in building and construction. Additionally, courses in Agriculture, Food Processing, handloom & handicrafts/furniture & furnishings can also be explored. ♦ Institutes should assist students in placements by providing information on job opportunities from the beginning of the academic year.
Government	<ul style="list-style-type: none"> ♦ To improve upon the quality of education in the state, the government must mandate accreditation of colleges to initiate sustainable improvement in quality of education. ♦ The government can promote colleges under PPP mode for training and graduating more students in high demand sectors. ♦ Owing to the dependence of the majority of population on agriculture, the government should focus on providing training in areas like agricultural products processing, vermicomposting and animal husbandry like dairy & poultry as additional source of income. ♦ For skilling the minimally skilled workers, Government can offer the following MES level courses which require minimum qualification as 5th Standard : <ul style="list-style-type: none"> ○ Construction: Plumber, Basic electrical training, Painter Assistant, Asst. Mason ○ Food Processing: Basic Food Preservation ♦ For aiding enrolment in vocational courses, the government can facilitate registration exercise at each ITI's/SDI's/ DET offices/Employment Exchanges.
Industry	<ul style="list-style-type: none"> ♦ More industry interactions could be initiated in the Building & Construction, Food Processing, Handloom & Handicrafts/ Furniture & Furnishings & Trade sectors in the district ♦ Industry players should encourage training apprenticeships for trainees from institutes with reasonable stipend. ♦ Industry players should collaborate with private training providers/skill development institutes for identification of sector specific employable skills based on division of work in the labor market and help in updating the course content as well as delivery of the programs.

4.15 Kabirdham

4.15.1 District Profile

Kabirdham district, also known as Kawardha is located on the southern bank of river Sakari. The district came into existence in 1998 after the Kabirdham tehsil of erstwhile Rajnandgaon district was combined with the Pandariya tehsil of erstwhile Bilaspur district. The district is part of Durg division. It is surrounded by Dindori district of Madhya Pradesh on the north, Mungeli on the north-east, Bemetara on the east, Rajnandgaon on the south and Balaghat and Mandla Districts of Madhya Pradesh on the west. Maikal mountain ranges of Satpura borders the northern and western parts of the district. It extends over an area of 4447 sq. Km³⁰³, which is 3.3% of the total state area. The district is divided into 4 tehsils viz. Bodla, Pandariya, Kawardha, Sahaspur Lohara, 4 blocks, 1004 villages, 367 gram panchayats, 9 revenue circles and 124 Patwari Halkas³⁰⁴. Kawardha city is the district headquarters. The main rivers of the district originate from the Maikal mountain range. Haf, Phok, Sakri, Phen, Halon, Banjar and Jamunia are the principal rivers flowing through the district. The district has a temperate climate³⁰⁵. The district is famous for the temple of Bhoramdeo.

Map 16: Kabirdham District

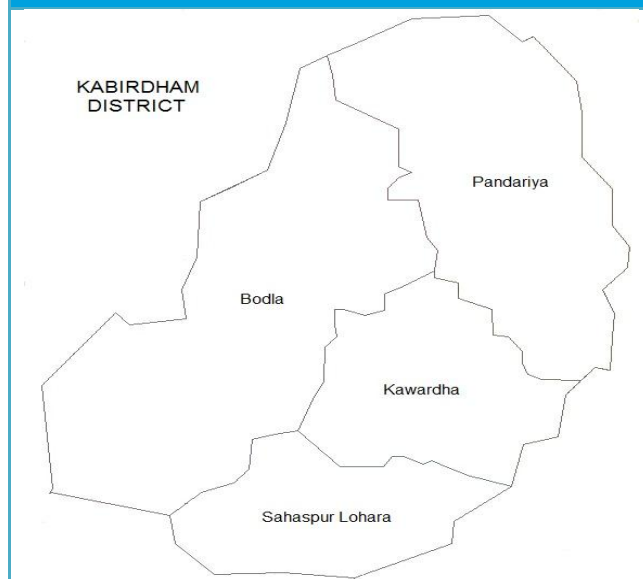


Table 248: Kabirdham District Profile

#	Indicator	Kabirdham	Chhattisgarh	% Share
1.	Area, in sq.km.	4447	135,190	3.3
2.	No. of sub-districts	4	149	2.7
3.	No. of inhabited villages	953	20126	4.7
4.	No. of households (in lakhs)	1.78	56.51	3.2
5.	Average Land holding size (Ha)	1.11	1.17	
6.	Forest area cover	37.5%	41.2%	

Source: Census 2011; Directorate of Economics and Statistics- Govt. of Chhattisgarh; <http://www.kawardha.gov.in>; State of Forest Report 2011-Forest survey of India; Deloitte Analysis

³⁰³ <http://www.kawardha.gov.in>

³⁰⁴ Census 2011 and Kabirdham website (<http://dantewada.gov.in/>)

³⁰⁵ <http://www.kawardha.gov.in>

4.15.2 Demography

As per Census 2011, Kabirdham has a population of 8, 22,239 of which 89.4% of the people reside in the rural areas. The decadal population growth in Kabirdham during 2001-2011 was 40.7%, which is much higher than the state decadal population growth of 22.6% during the period 2001-2011. As of 2011, according to population, Kabirdham ranked 14th amongst all the districts of Chhattisgarh accounting for 3.2% of the state population. The per capita income in the district is significantly less than the state average. The district ranks 24 amongst all 27 districts in terms of per capita income.

About 57.1% of the population is in the working age population class group.

Table 249: Demographic Indicators of Kabirdham

Demography	Kabirdham	Chhattisgarh
Population (2011)	8,22,239	2,55,40,196
Population 15-24 (2011)	1,47,651	49,89,339
Decadal Population Growth Rate (2001-11)	40.7%	22.6%
Population density per sq. km (2011)	185	189
Percentage of Urban Population (2011)	10.6%	23.2%
Percentage of SC population (2011)	14.6%	12.8%
Percentage of ST population (2011)	20.3%	30.6%
Average household size	4.61	4.54
Sex Ratio (2011)	997	991
Working age population (15-59) as a percentage of total population, %	57.1%	60.1%
Per Capita Income (2009)	Rs. 12,974 ³⁰⁶	Rs.28,263
Source: Census of India 2011; Directorate of Economics and Statistics- Govt. of Chhattisgarh, Deloitte Analysis		

Key Observations:

- The decadal population growth of the district at 40.7% is much higher than the state population growth of 22.6%.
- The per capita income in the district is significantly less than the state average. The district ranks 24 amongst all 27 districts in terms of per capita income.

³⁰⁶ At 2004-05 constant prices, Deloitte analysis

4.15.3 Economic Profile

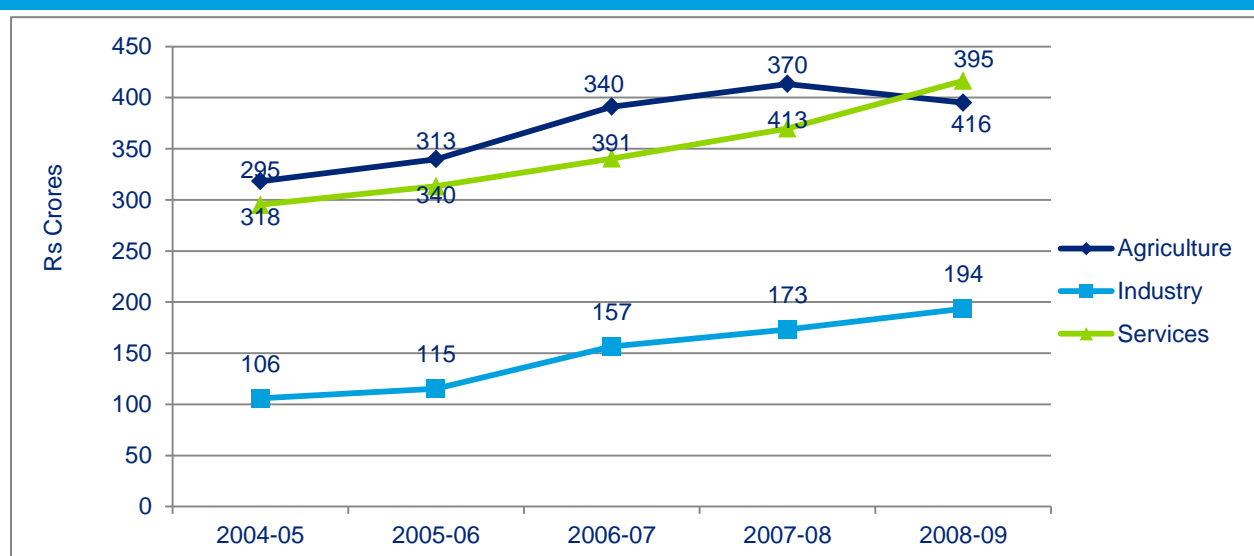
Gross District Domestic Product (GDDP) of Kabirdham in the period 2005-2009 (estimated at constant price, 2004-05) has grown at a CAGR of 8.7% which is less than the state growth rate of 9.6% in the corresponding period.

At Rs 1005.1 Cr., Kabirdham ranked 23rd in the state in terms of economic activity in 2009. The district contributed 1.5% to the Gross State Domestic Product in the same year.

The economy of Kabirdham district is pre-dominantly Services sector based, **with its share in GDDP being 41.4% in 2008-09**. This is followed by Agriculture sector with 39.3% share in the GDDP and the Industry sector at a share of 19.3%. Both Industry and Services sectors have grown consistently over the period 2005-09. The Industry sector has shown the highest growth rate in the district over the period 2005-2009 with a CAGR of 16.3% followed by Services and Agriculture sectors which registered a CAGR of 9.0% and 5.6% respectively.

The sector-wise GDDP growth and distribution from 2005-09 is given in the figures below:

Figure 267: Sectoral Share of GDDP, 2004-05 to 2008-09, Kabirdham



Source: Directorate of Economics and Statistics-Govt. of Chhattisgarh, 2004-05 base prices

Agriculture Sector

The contribution of Agriculture sector (agriculture, forestry & logging and fishing) to GDDP was 39.3% in 2008-09. Agriculture is the main contributor in the total output of the Agriculture sector contributing 64.5% in the year 2008-09.

The central east and southern part of the district is plain, whereas the northern and western part is mountainous. Mainly Black, Kanhar and Dorsa soil is found in the district. The soil contains Nitrogen, Alp Potash and Sulphur. The temperate climate of Kabirdham helps in the growth of crops. The main crop of the district is paddy. Other key crops grown in the district are wheat, maize, tiwra, kodo-kutki, arhar, soyabean, gram, sugarcane etc. Kabirdham is a NFSM district for both rice and pulses.

Forestry & Logging, which contributed around 28.5% of the sectoral GDDP, is also an important source of livelihood for the people of the district. More than one third of the district is covered by forests. The important non nationalized species found in Kabirdham are Kusum (Lac), Palash, Mahulpatta, Mahua, Chironjee, Shahad, Aonla, Bel, Kalmegh, Bhelwa, Nagarmotha.

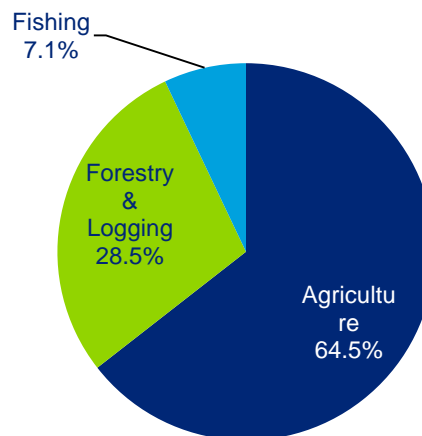
Industry Sector

The Industry sector (manufacturing, mining & quarrying, construction, electricity, gas and water supply) contributed 19.3% to the GDDP in 2008-09. Construction is the major contributor within the Industry sector, with a sectoral share of 61.6% in 2008-09. The total budgeted value for ongoing building and construction activities (building and roadwork) in Kabirdham for the year 2013-14 allocated at Rs. 104 crores shows the current focus of the district on the sector³⁰⁷.

Manufacturing contributed 28% to the Industry sector in 2008-09. The district is not industrially advanced. There is an industrial area at Harinchhpara developed over an area of 20 ha where 4 units are in production as of 2011³⁰⁸. There are some agro based industries in the district like the Bhoramdev sugar factory.

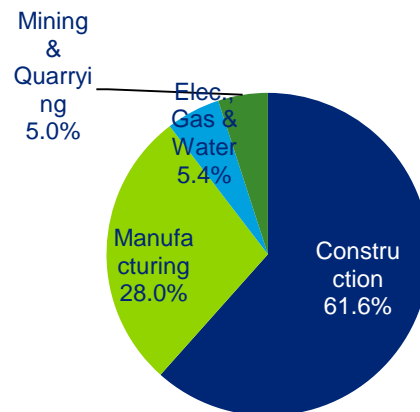
As per the list of MoU's shared by the State Investment Promotion Board (As on 31-03-2011), an investment of Rs 1150 crores has been proposed for installation of cement plant by Electrosteel Casting

Figure 268: Sub-sectoral break-up of Agriculture sector (2008-09), Kabirdham



Source: Directorate of Economics and Statistics, Govt. of Chhattisgarh

Figure 269: Sub-sectoral break-up of Industry sector (2008-09), Kabirdham



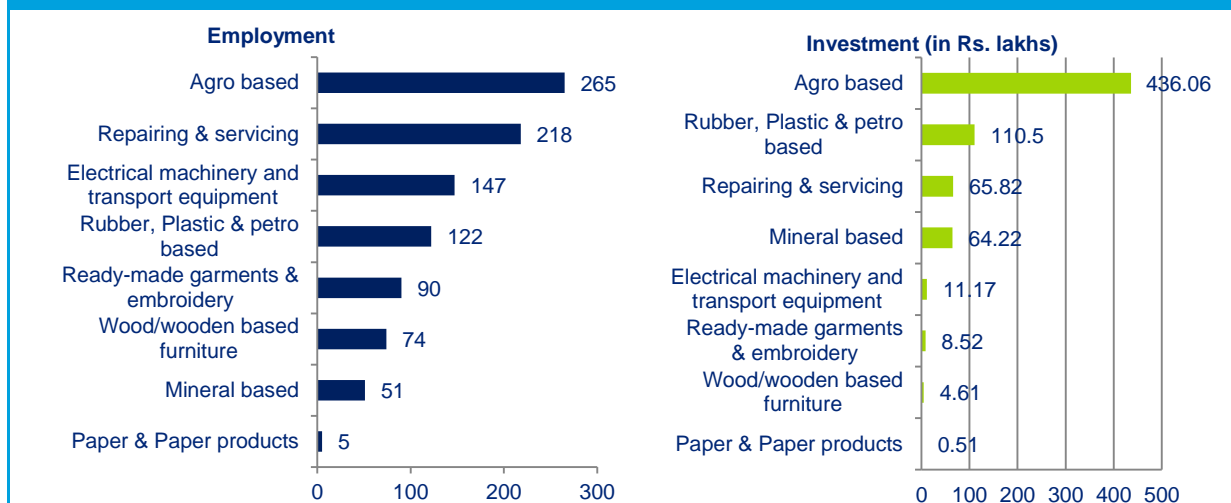
Source: Directorate of Economics and Statistics, Govt. of Chhattisgarh

³⁰⁷ Chhattisgarh Public Works Department

³⁰⁸ Brief Industrial Profile of Kabirdham District, MSME-DI, Raipur

Limited. Besides, an Integrated Infrastructure Development Centre has been developed at Harinchhpara. The investment in micro and small enterprises in the district is captured in the figure below. As evident from figure, the key industries in MSME sector mainly include agro based industries.

Figure 270: Employment and investment (in Rs. Lakhs) in micro and small enterprises, Kabirdham



Source: Ministry of Micro, Small and Medium Enterprises- Government of India, 2011-12 and Deloitte Analysis

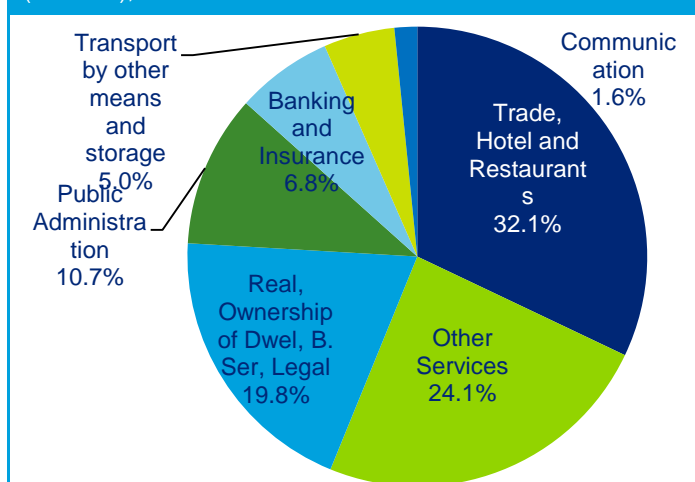
In terms of availability of minerals, Kabirdham does not have rich deposits of minerals. Small deposits of limestone have been found in the Ranjitpur-Manpur area. The total mineral revenue receipt from mining of minerals in the district in 2012-13 was Rs. 1318.19 lakhs (Major minerals: Rs. 977.29 lakhs; Minor minerals: Rs. 340.54 lakhs and others: Rs. 0.76 lakhs)³⁰⁹.

Services Sector

The Services sector contributes to about 41.4% of the GDDP in the year 2008-09. The key contributor to the sector is trade, hotel and restaurants contributing approximately 32.1% in the Services sector GDDP. Both Kabirdham and Bhoramdev are archaeologically important places. The temple of Bhoramdeo attracts tourists from both within and outside the district. Besides Mandava Mahal, Cherki Mahal, Sili Pachrahi, Jain Tirth Bakela are important tourist attractions.

With a CAGR of about 16.4% and 19.8% over the period from 2005-2009, communication and banking & insurance sectors respectively were amongst the fastest growing sectors in the district, though their absolute sizes are small.

Figure 271: Percentage contribution to the Services sector (2008-09), Kabirdham



Source: Directorate of Economics and Statistics, Govt. of Chhattisgarh

³⁰⁹ Directorate of Geology & Mining, Chhattisgarh

Key Observations:

- ♦ The economy of Kabirdham district is pre-dominantly Services sector based, **with its share in GDDP being 41.4% in 2008-09**. This is followed by Agriculture sector with 39.3% share in the GDDP and the Industry sector at a share of 19.3%.
- ♦ Both Industry and Services sectors have grown consistently over the period 2005-09. The Industry sector has shown the highest growth rate in the district over the period 2005-2009 with a CAGR of 16.3% followed by Services and Agriculture sectors which registered a CAGR of 9.0% and 5.6% respectively.

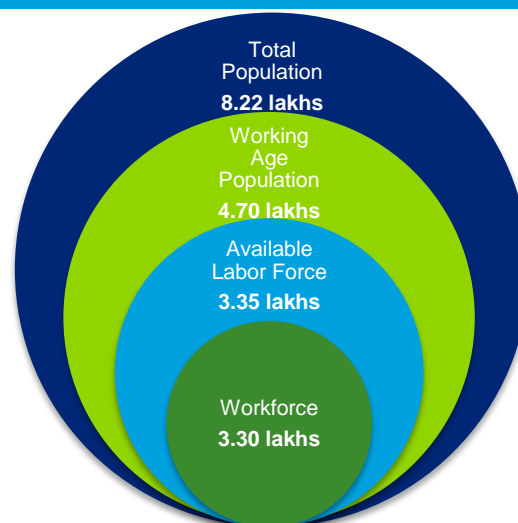
4.15.4 Employment Profile

With a population of 8, 22,239, Kabirdham accounted for 3.2% of the state's population.

The adjacent figure depicts the estimated workforce in Kabirdham in the context of the total population of the district. Out of the total population of 8.22 Lakhs, the working age population (between 15-59 age group) constitutes nearly 57.1%.

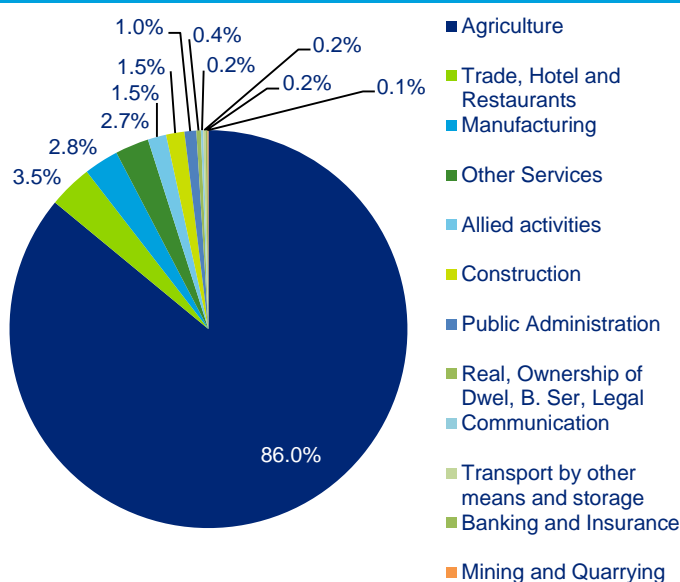
Based on the labor force participation rate and the worker participation rate estimates for the state, the available labour force is estimated to be 3.35 lakhs, and the workforce is estimated at 3.3 lakhs or nearly 70% of the working age population. **More than four-fifth of the workforce (87%) in the district is engaged in Agriculture sector** in 2011, followed by the Services sector which employs 8.1% of the workforce. Industry sector employs 4.4% of the workforce.

Figure 272: Total Workforce in Kabirdham (2011)



Source: Census 2011 and Deloitte Analysis

Figure 273: Sector wise employment in Kabirdham (2011)



Source: Census 2011 and Deloitte Analysis

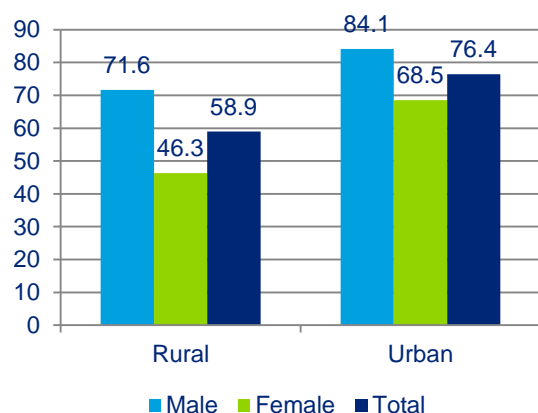
The sector-wise employment of Kabirdham for the year 2011 has been shown in the adjoining figure. Agriculture contributed to 86% of the total employment in the district. Trade, hotels and restaurants was the second highest employer in the district (3.5%), while manufacturing employed 2.8% of the total workforce. Other services and activities allied to agriculture are the other important sectors in the district in terms of employment.

The top five sectors in the district in terms of employment account for around 97% of the total employment of the available workforce in Kabirdham in 2011.

4.15.5 Education Infrastructure

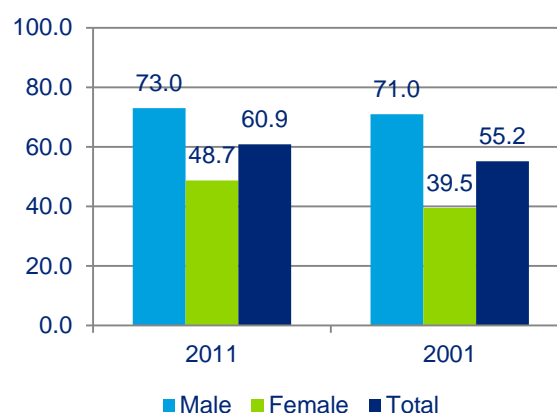
The literacy rate in Kabirdham has increased from 55.2% in 2001 to 60.9% in 2011³¹⁰. However, it is much lower compared to the state's literacy rate of 70.3% in 2011 as well as the all-India literacy rate of 73%. In 2011, male and female literacy rates stood at 73.0% and 48.7% respectively, both figures showing an improvement compared to the 2001 figures of 71% and 39.5% respectively.

Figure 274: Literacy rate 2011 (by residence), Kabirdham



Source: Census of India 2011

Figure 275: Literacy rate (by Gender), Kabirdham



Source: Census of India, 2001 and 2011

School Education

Kabirdham has 1187 primary schools, 589 upper primary schools, 109 secondary schools and 71 higher secondary schools. Net enrolment ratio (NER) is high for the primary level. NER at the upper primary level (70.9%) is higher than the state NER of 67.8%.

Table 250: Status of school education infrastructure in Kabirdham, 2013

#	Educational Statistics	Units in Kabirdham	Units in Chhattisgarh	% Share of District in State
1	Primary School	1187	35588	3.3%
2	Upper Primary School	589	16442	3.6%
3	Secondary School	109	2632	4.1%
4	Higher Secondary School	71	3548	2.0%
5	NER (Primary) (2010-11)	100%	98.0% ³¹¹	-
6	NER (Upper Primary) (2010-11)	70.9%	67.8%	-

Source: DISE 2012-13

Vocational Education

For vocational training, Kabirdham has a total of **2 ITI's in the district**, both of which are Government Industrial Training Institutes. There is no woman ITI in Kabirdham. The total capacity of the ITIs in the

³¹⁰ Census 2011

³¹¹ Data is for 2008-09

district is 88. Computer Operator and Programming Assistant (COPA) and Electrician courses have the maximum units affiliated among ITIs.

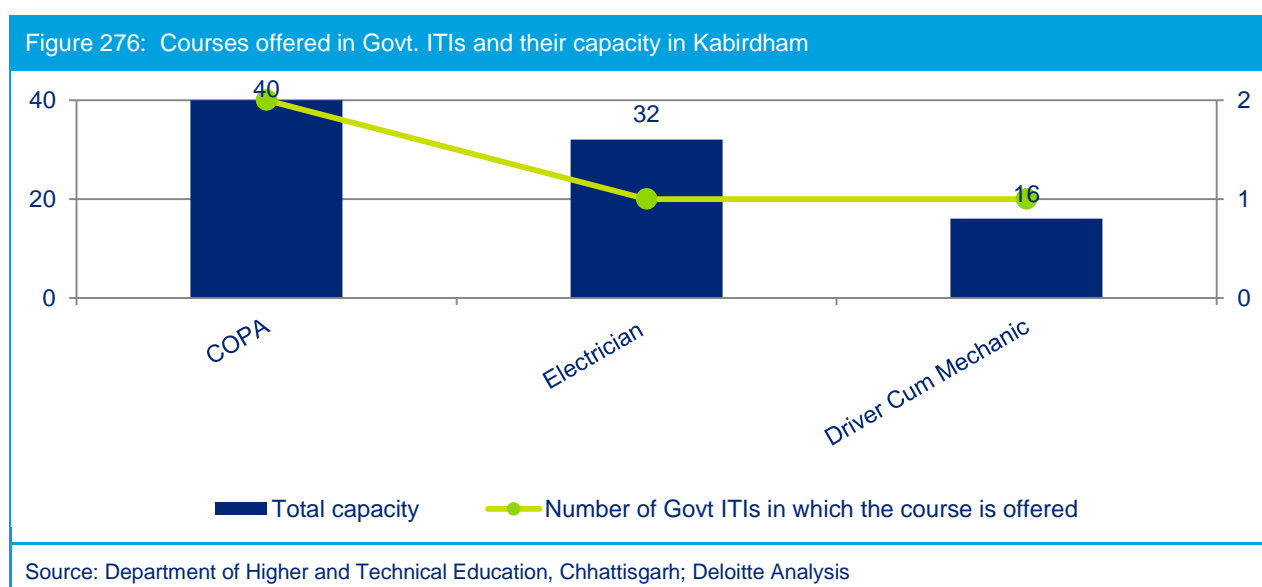
The number of courses available in ITIs and their capacity are listed in the table below:

Table 251: ITIs in Kabirdham and their capacity

Name of ITI			Number of courses offered	Total Units affiliated	Total Capacity
Government Institute, Kabirdham	Industrial Training		3	4	68
Government Institute, Pandariya	Industrial Training		1	1	20
Total			3*	5	88

Source: Department of Higher and Technical Education, Chhattisgarh; Deloitte Analysis
 *Total number of different courses offered by ITI's in Kabirdham

The courses offered in the ITIs and their capacity in Kabirdham is given in the figure below:



According to Chhattisgarh State Skill Development Mission Website, as of 12th March 2014, Kabirdham has **48 Vocational Training Providers (VTPs)** under which there are 2626 registered beneficiaries. The following table highlights the courses offered in vocational education, which currently meet requirements of about 11 sectors.

Table 252: Courses offered in vocational education, Kabirdham

Sector	ITI trades and Units affiliated	Courses Offered by VTPs
Auto and auto components Electronics and IT hardware Chemicals and pharmaceuticals	Electrician(2)	Electrical, Electronics, Fabrication, Automotive Repairs
IT and ITES Tourism, hospitality and travel Organized retail Banking, financial services and insurance	Computer Operator and Programming Assistant(2), Driver cum mechanic (1)	ICT, Soft skill, Banking & Accounting,
Textiles and clothing Food processing		Garment making, Meat Processing

Infrastructure (Transport, Energy, Water & Sanitation, Communication, Social & Commercial)	Rain water Harvesting
Healthcare Services Unorganized sector (particular reference to agriculture, security, plumbing, domestic worker, foundry, etc.)	Medical & Nursing, Beauty Culture & Hair Dressing, Animal Husbandry, Apiculture, Agriculture, Fisheries & Allied Sector, Plumber, Bamboo Fabrication
CSSDA Website	

The following table highlights the NSDC partners present in Kabirdham as of January 2014 and the courses offered by them.

Table 253: NSDC partners present in Kabirdham

Name of Partner	Sectors in which course is offered	Courses offered
AISECT	IT and computer skills	<ul style="list-style-type: none"> ♦ Post graduate diploma in computer applications ♦ Diploma in computer applications ♦ Diploma in computer programming applications
	ITES-BPO	<ul style="list-style-type: none"> ♦ Post graduate diploma in computer applications ♦ Diploma in computer applications ♦ Diploma in computer programming applications
	Hardware	<ul style="list-style-type: none"> ♦ Advanced Diploma in Computer Hardware and Networking
Source: NSDC		

Higher Education

The higher educational infrastructure in the district is not very promising. Out of a total 590 colleges in the state, 12 (2.0%) are in the district of Kabirdham. This is lesser than the share of population of Kabirdham in the state (3.2%). Moreover 8 out of the 12 **colleges in the district offer general degree courses** (Arts, Science and Commerce). There are no medical, management or technical colleges in the district. Besides these 12 colleges, Kabirdham also has a Government polytechnic institute.

Table 254: Number and Capacity of Higher Education infrastructure in Kabirdham

#	Colleges	Number	Estimated Capacity*
1	Arts, Science and Commerce	8	-
2	Agriculture	3	145
3	Nursing	1	40
	TOTAL	12	-
*Source: University/College websites			

Key Observations:

- ♦ The share of district in the higher education space of the state (2.0%) is lesser than its share of population (3.2%).
- ♦ Moreover, out of the 12 colleges present in the district, 8 colleges (67%) offer only general degree courses (Arts, Science and Commerce).
- ♦ There are no medical, management or technical colleges in the district.

4.15.6 Youth Aspirations

Youth population constitutes the most important demographic section for a district from a skills development perspective. In the process of capturing the aspirations of the youth population in Kabirdham, focused group discussions were held with youth from educational institutions as well as residing in rural areas to understand their concerns, areas of interest and future dreams and goals. The FGD in Kabirdham was conducted at the Gram Panchayat Bhavan, Nevari, Kabirdham. People who participated in the FGD were from varied age groups, 52.5% of them belonged to the age group of 15-20 years, while 39.0% belonged to the age group of 20-25 years. The remaining 8.5% belonged to the age group of 25-30 years. The educational qualification of about 50% of the participants was graduate and above, 29.3% were ITI or diploma holders while the remaining 22.4% respondents were high school and below. The key observations about aspirations of the youth of the district are highlighted below.

Table 255: Youth Aspiration – Key Responses – Kabirdham

Parameters	Responses
Job Preference	<ul style="list-style-type: none"> Most of the youth preferred Government jobs over private jobs due to the job security offered in a Government job. They also preferred regular/ salaried employment over self-employment.
Preferred Course	<ul style="list-style-type: none"> Training for job readiness appears to be most popular among the youth in the district. Women prefer self-employment activity related training like tailoring and sewing, small scale or cottage industry.
Migrating for job	<ul style="list-style-type: none"> People are ready to take transferable jobs.
Salary Expectations	<ul style="list-style-type: none"> Average monthly salary expectation of youth ranges between Rs 15000-30000/- according to qualification
Areas of concern/ aspirations- Infrastructure	<ul style="list-style-type: none"> Youth reported poor quality of infrastructure in the institutes in terms of building, toilets, library, furniture, etc. Better workshops are required in the ITIs.
Areas of concern/ aspirations-Course Curriculum	<ul style="list-style-type: none"> Youths expressed the need for resourceful and good teachers. Youth feel that institutes should focus more on soft skill and practical training. There should be awareness generation camps for training programmes. Youth feel that institutes should have more tie-ups between industries and institution
Suggestions given by youth	<ul style="list-style-type: none"> The youth expect Govt. to take up initiatives to improve college infrastructure. There should be more courses, practical classes, resourceful, efficient and regular teachers available in the institutes. New courses like nursing needs to be started in the district. Youth expressed that Govt. should take measures to provide proper education facilities to the underprivileged people. There should be more tie-ups between industries and institutions.

A sample survey was conducted with youth at gram panchayat level & those coming out from various educational institutions (Government & private) to understand & capture their aspirations. The findings are presented below:

Job preference by youth

The majority of the youth we surveyed (60%) **prefer to get a job outside the country** as is evident from the adjacent figure. Approximately 21% of them preferred for job within their district. Around 26% of the youth surveyed prefer to work within Chhattisgarh.

Parameter for Institute Selection

A majority of the students surveyed (50%) at the gram panchayat level quoted the prospects of employment or placement as their prime parameter while selection of an institute for higher education. Around 45% of the students surveyed in the district make their choice of higher education based on the quality of education offered by the institutes. The remaining 5% of the respondents prefer to study in an institute close to home.

Youth Perception Mapping

Youth perception mapping was undertaken to understand their level of satisfaction with either their current institute or their experience and feedback on the available educational infrastructure. The results are summarized below:

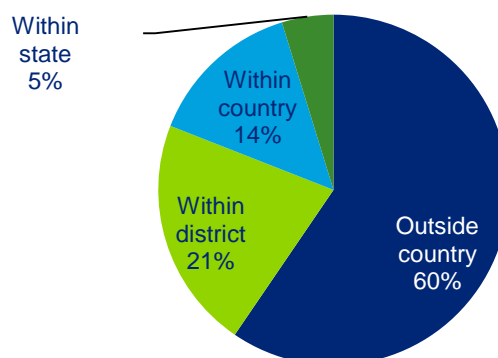
Satisfaction with placement / jobs

available post training: The students were equally opined in relation to placement. Around **43.6% of the students surveyed expressed their satisfaction** with the placement opportunity available in the institute or jobs available post training. While around **38.5% of them felt the job opportunities available to them post training were not satisfactory**. They shared their expectation of being provided with a placement opportunity by the institute or facilitate a tie-up with nearby companies to give them an experience of hands on training.

Non-availability of latest technologies and equipment for training: Around 21% of the students expressed their satisfaction with the availability of latest technologies and equipment in the institutes. However, approximately **69% of the students surveyed expressed their dissatisfaction** with the availability of latest technology & equipment for training in the institute. They felt the lack of equipment as a major constraint for their knowledge enhancement and appropriate level of skill development. They demanded the institutes to be adequately equipped and upgraded with latest technology.

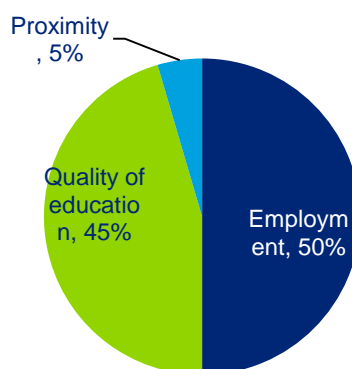
Dissatisfaction with capability of institute's faculty in teaching: 18% of the students expressed their satisfaction on the quality of teaching in their institute. Around 59% of the students (especially the students from Government ITI's) feel the **quality of teaching by faculty** is not satisfactory and needs significant improvement. They also demanded for more faculty as the student to teacher ratio is high. They demanded the number of faculty to be increased as per the demand of the course.

Figure 277: Job Preference by Youth



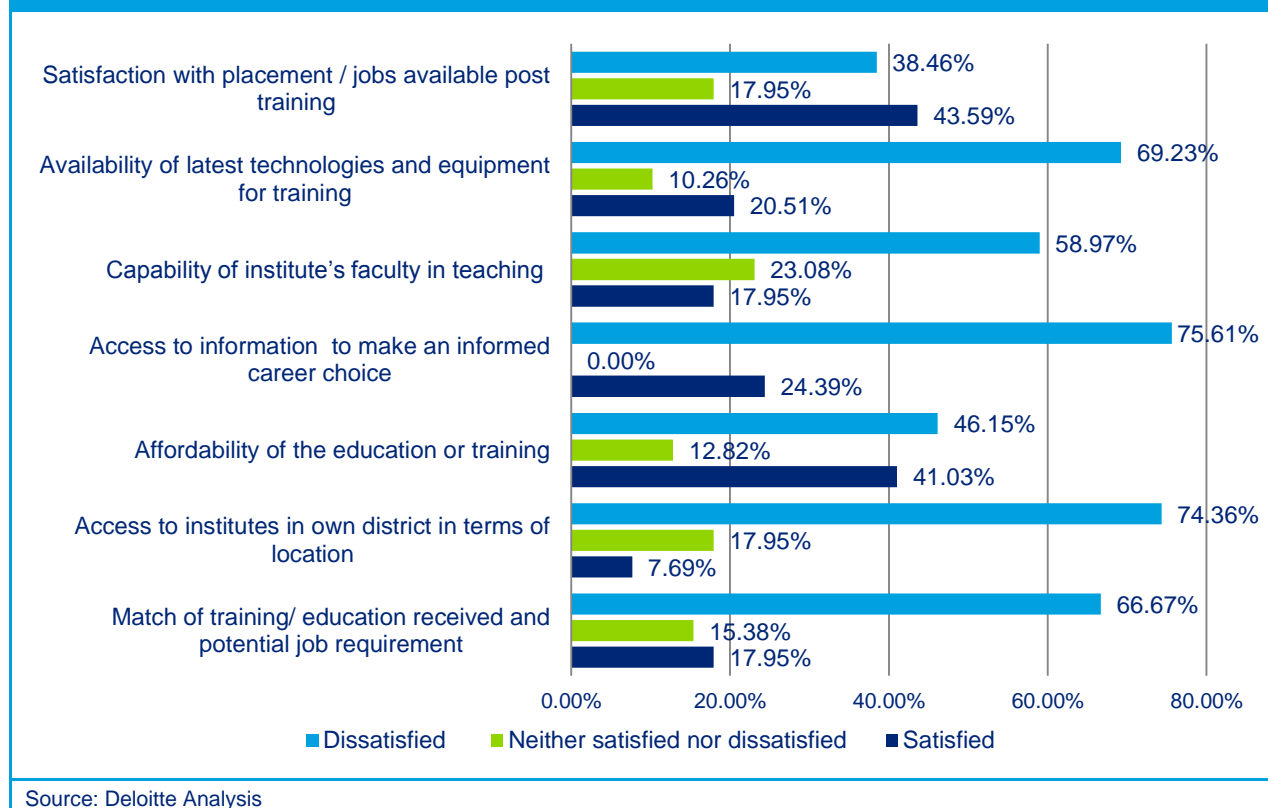
Source: Deloitte Analysis

Figure 278: Parameter for Choice of Institute



Source: Deloitte Analysis

Figure 279: Youth Perception Mapping, Kabirdham



Need for better access to information to make an informed career choice: Majority of the students were dissatisfied as far as access to information to make an informed career choice is concerned. 24% of the students vouch for accessibility to information to make an informed career choice, **while 76% of them felt that they did not get proper accessibility to information to make an informed career choice.** This showcases the importance of having career counseling to the potential students either at the school level or at the respective vocational institutes.

Affordability is not as high a concern as quality and value for money in education or training: The youth were divided in their opinion for affordability of education. While 46% of the students felt that the fees charged by the institute was affordable; around 41% of them felt that the fees charged by the education/ training institute were a barrier for them and considered it to be unaffordable for them. They raised their concern that the quality of the training programme offered should be commensurate with the fees charged.

Access to institutes is an issue: 74% of the students surveyed expressed their **dissatisfaction with the accessibility** of the educational institutes in terms of location. They felt the educational institutes to be inaccessible in terms of location and majority of them were rural youth. Around 8% students felt the educational institutes to be accessible in terms of location.

Dissatisfaction with the alignment of training/education received with job requirements: Approximately 18% of the students surveyed felt that the training/ education received by them matched the potential job requirements of the employers while around 67% of them felt that there is a need to align the training/education provided in the district in terms of job requirements of the business.

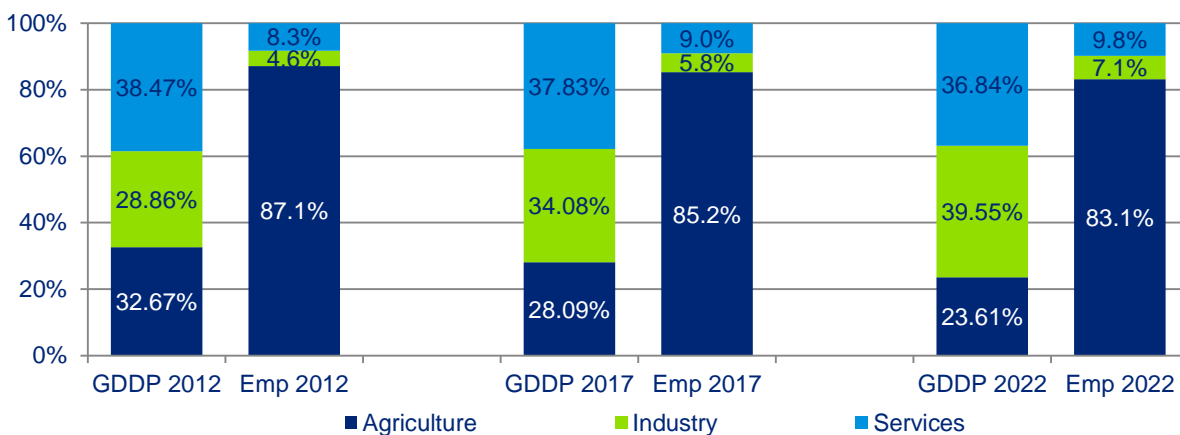
Key Observations:

- ♦ Govt. Jobs are preferred by youth over private jobs. The expected salary ranges from Rs. 15000 to 30000. The people of the district are ready to take transferable jobs
- ♦ Women prefer self-employment activity related training like tailoring and sewing, small scale or cottage industry.
- ♦ Need for updating course content & creating linkages for placement was strongly expressed by youth.
- ♦ Improving institute-industry interface to ensure better apprenticeship training was emphasized.
- ♦ Need to address Infrastructure gaps - particularly updating the library, toilets, furniture was expressed by youth.
- ♦ Youth expressed the need for resourceful and better teachers in the institutes. They also voiced their need for more teachers as student to teacher ratio is high.
- ♦ Youth are not aware about the different Government initiatives on skill development

4.15.7 Skill Gap Assessment

The working age population (15-59) constituting 57.1% of total district population in 2011, is expected to increase to 60.2% by 2022. Demand for jobs is expected to increase leading to the need for job creation. Similarly, to reap this demographic dividend, supply of labor must be adequately skilled.

Figure 280: Comparison of Sectoral share in GDDP & Employment, Kabirdham



Source: Deloitte Analysis

The above figure also depicts the significant disparity in the structures of economy and employment in the district. Based on our analysis and primary interactions, the Agriculture sector is expected to be an important sector in terms of providing employment in the district and would account for the largest share of workforce over the decade. If the trends in employment continue, in 2021-22, the share of employment across the Agriculture sector is expected to decline to 83.1% as compared to 87.1% in 2012.

The Industry and Services sector employment share are estimated to increase 7.1% and 9.8% respectively, as indicated in the table above. This trend appears to be in line with the national trend as well where people are moving out of the Agriculture sector and moving into the Industry and Services sectors respectively.

Incremental Human Resource Demand

As per the methodology, the total incremental demand for manpower in Kabirdham by 2022 is expected to be 0.53 lakhs. Following table provides the break-up of the incremental demand for manpower in Kabirdham as per skill level required.

Table 256: Estimated Incremental Human Resource Demand by Skill Level (in '00s) in Kabirdham

	2012-17	2017-22	Total
Skilled	33	39	72
Semi-Skilled	61	70	131
Minimally Skilled	162	162	324
Total	256	271	527

Source: Deloitte Analysis

Some of the key trends observed on the demand side include

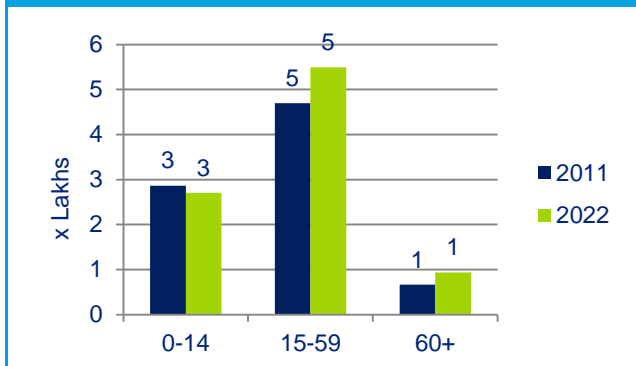
- ♦ *Agriculture will be the largest incremental demand generating sector (50.2%) with demand largely in the minimally skilled level.*
- ♦ *Within the Industries sector, the greatest incremental demand on employment is expected to come from the building and construction (11.2%) followed by food processing (4.8%) sector.*
- ♦ *Within the Services Sector, trade (retail + wholesale) is expected to contribute about 4.7% of the total incremental demand for employment, followed by BFSI (4.2%).*
- ♦ *Analysis of formal and informal employment indicates that the incremental demand for manpower in formal sector would come mainly from Building and Construction, BFSI, Public Administration and Education/ Skill development services.*
- ♦ *Majority of demand for incremental manpower in the informal sector is projected to come from Agriculture, Construction, Food processing and Large Manufacturing (mineral/metal based).*

Table 257: Incremental Human Resource Demand ('00) by Skill Level in Kabirdham - Key Sectors

Table 237: Incremental Human Resource Demand (00) by Skill Level in Rabiraham - Key Sectors									
#	Sector	2012-17				2017-22			
		Skilled	Semi-skilled	Minimally Skilled	Total	Skilled	Semi-skilled	Minimally Skilled	Total
1	Agriculture	4	14	119	136	4	13	111	128
2	Building & construction	4	11	12	26	5	13	15	33
3	Food processing	1	4	7	12	1	4	8	13
4	Trade (Retail + Wholesale)	2	6	4	12	2	6	4	12
5	Manufacturing (mineral/ metal based)	2	7	2	11	3	8	3	13
6	Banking/ Insurance/ Finance	4	4	0	8	7	6	1	14
7	Public Administration	5	2	1	8	6	2	1	9
8	Others	11	15	17	42	11	17	19	48
Overall Incremental Demand						527			
Source: Deloitte Analysis									

Incremental Human Resource Supply

Figure 281: Age wise distribution of population, Kabirdham 2011 and 2022 (projected)



Source: Census 2011 and Deloitte Analysis

The population of Kabirdham is expected to increase from 8.22 lakhs in 2011 to 9.1 lakhs in 2022. The adjacent figure provides the current and projected population across various age groups. As per the analysis, the number and proportion of children in 0-14 age group is projected to fall by about 0.16 lakh children, while the number of persons in the working age group is expected to increase by 0.8 lakh during the same period. This represents a potential demographic dividend for the district with a large increase in the employable population. On the other hand, it presents a huge challenge for the state to make available higher education and skill development facilities as well as ensure productive employment opportunities

for its population.

As per the methodology, the estimated total incremental manpower supply in Kabirdham over the decade (2012-2022) will be about 1.23 lakhs. Incremental manpower supply from various educational and vocational training institutes in the district can be further classified into skilled, semi-skilled and minimally skilled as per the educational qualifications and estimated output of educational and vocational training institutes in the district.

Table 258: Estimated Incremental Human Resource Supply ('00) by Skill Level in Kabirdham

	2012-17	2017-22	Total
Skilled	55	57	111
Semi-Skilled	117	128	245
Minimally Skilled	432	445	876
Total	603	629	1232

Source: Deloitte Analysis

Some of the key trends observed on the supply side include

- Proportion of incremental supply of semi-skilled manpower is 71.1% compared to 19.9% of skilled and 9% of minimally skilled manpower (2012-22).
- Out of the total 590 colleges present in the state, 12 (2.0%) are in the district of Kabirdham which is lower than the population share of the district. This accounts for the low proportion of skilled supply in the district.
- Kabirdham has 2 out of 180 ITIs and 38 VTPs & Private vocational training providers. The supply of semi-skilled workforce in the district is estimated to be the highest over the two time periods which are in-line with the current focus of government in improving the skill development space of the state.
- The trend of migration is expected to be inward from other states and districts across all skill levels and would account to nearly 1.0% of the supply.

Incremental Demand Supply Gap

During the period 2012-22, the incremental demand supply gap of the district (across all sectors mentioned above) is expected to be a surplus of 0.71 lakh people (refer table below). There is assessed to be an excess supply across all the skill segments.

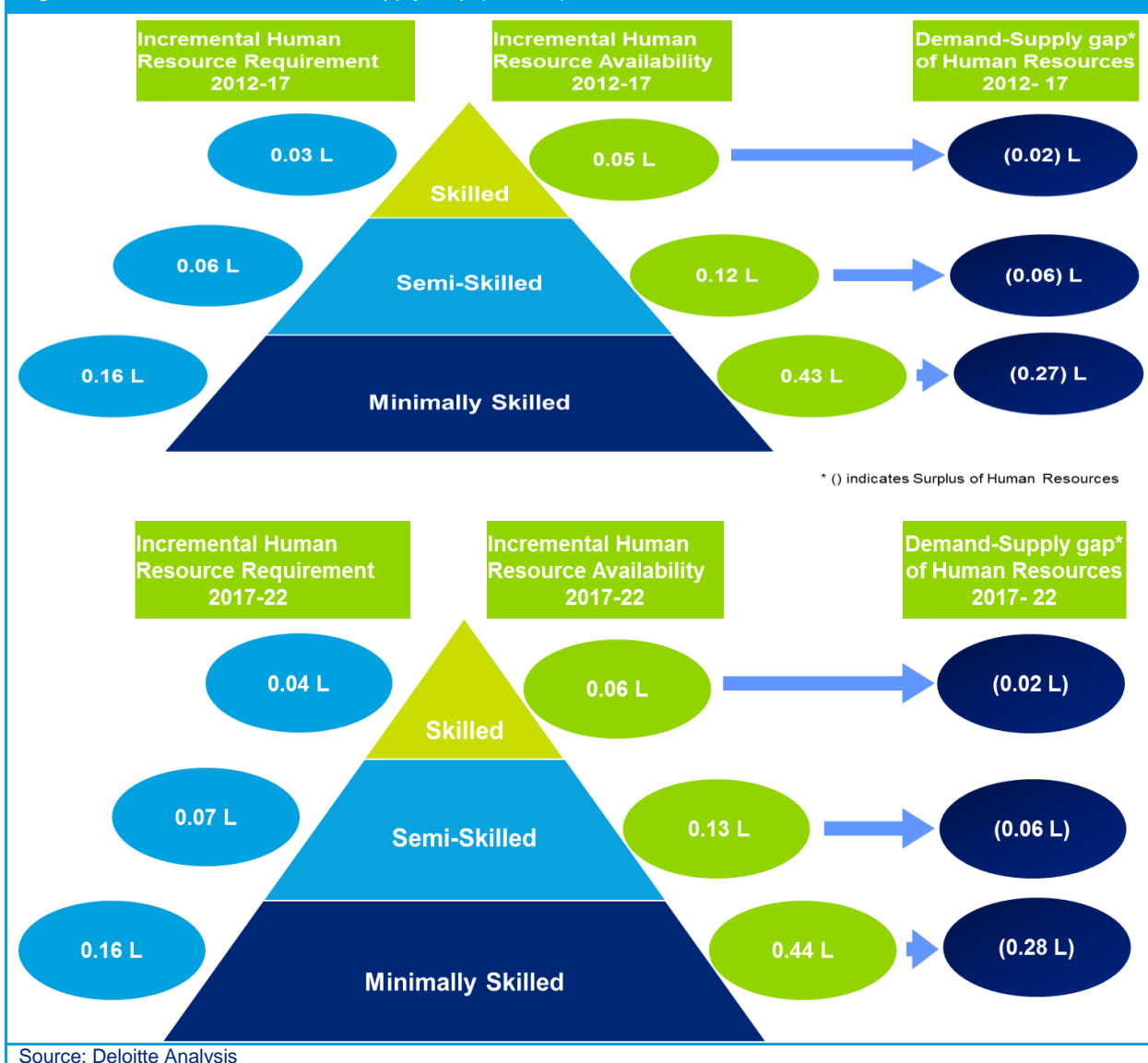
This means the rate of creation of employment in the district has to be augmented with suitable government initiatives in order to absorb the supply of workforce projected to enter the job market. Moreover, it also indicates a potential for skilling the semi-skilled and minimally skilled workforce and shift them to the more productive job roles assumed at the higher skill level respectively.

Table 259: Projected Demand Supply gap by skill levels in Kabirdham

#	District Skill Gap		2012-17				2017-22			
			Skilled	Semi-skilled	Min. Skilled	Total	Skilled	Semi-skilled	Min. Skilled	Total
1	Incremental Requirement (Demand)	HR	33	61	162	257	39	70	162	270
2	Incremental Availability(Supply)	HR	55	117	432	603	57	128	445	629
3	Demand-Supply Gap		(22)	(55)	(269)	(347)	(18)	(58)	(283)	(359)
Overall Demand-Supply Gap								(706)		
Source: Deloitte Analysis										

During the period 2012-22, the incremental manpower demand supply gap of the district (across all sectors mentioned above) is expected to be a surplus of 0.71 lakh with the excess supply across all skill segments as shown in the following figure.

Figure 282: Incremental Demand-Supply Gap (in lakhs), Kabirdham



Source: Deloitte Analysis

Some of the key trends observed on the demand-supply gap include

- ♦ The composition of the human resource demand supply gap over the two different time periods i.e. 2012-17 and 2017-22 is anticipated to remain the same.
- ♦ The excess supply in the skilled segment is expected to continue over the decade and increase in future. This is in line with low demand of skilled labour in the district. Due to the excess supply, skilled workers may need to seek job opportunities outside the district.
- ♦ The trend of excess supply is likely to continue in the semi-skilled segment across both the periods. However, in terms of educational qualification, approximately 65% of the total semi-skilled workforce is estimated to be class 12 pass outs having undergone no job/skill specific training. This indicates

*that most of the surplus supply of semi-skilled labor is actually untrained, and if only outputs of semi-skilled workers from ITI/VTPs are considered, there is a supply deficit in that category also. In addition, primary interactions have raised **employability & deficit in specific jobs/ skills amongst the workers** as major concerns despite high overall supply in semi-skilled category. These have been captured in the qualitative skill gaps section below.*

Qualitative Skill Gaps

The qualitative skill gaps that were highlighted during our primary interactions with industry at Kabirdham are given in the table below.

Table 260: Qualitative Skill Gaps

Sector	Level	Skill Gap
Agriculture	Tractor operator and mechanics/ Electricians/ Mechanics for repair & maintenance of agricultural tools & implements	<ul style="list-style-type: none"> ♦ Sufficient training to address tool & equipment failures like motor pump failure, gear damage, tyre puncture etc.
Building & construction	Project Managers/Engineers	<ul style="list-style-type: none"> ♦ Knowledge of design and tools such as AutoCAD etc. ♦ Knowledge of green/eco-building design ♦ Project Management and People Management Skills ♦ Knowledge of appropriate safety practices
	Supervisors: plumbing, electrical, carpentry, masonry, drilling	<ul style="list-style-type: none"> ♦ Skills in civil- operations of ready mix m/c, earth movers, etc. ♦ Basic repair and maintenance ♦ Exposure to right methodology in construction specific skills like lining, leveling etc. ♦ Site safety concepts and procedures
	Workmen: plumbing, electrical works, carpentry, masonry, drilling	<ul style="list-style-type: none"> ♦ Basic operating skills related to relevant category ♦ Improved/ better quality in finishing ♦ Site safety concepts and procedures ♦ Ability to understand & follow instructions/ manuals
Food Processing	Procurement Managers	<ul style="list-style-type: none"> ♦ Ability to forecast demand and undertake procurement accordingly ♦ Ability to locate and enter into relationships with farmers
	Plant Associates and operators	<ul style="list-style-type: none"> ♦ Limited basic engineering knowledge esp. on practical aspects, process knowledge e.g. distillation
	Material Handlers	<ul style="list-style-type: none"> ♦ Limited awareness on quality, health and hygiene awareness ♦ Limited basic computer skills including barcode reading
	Sales and marketing	<ul style="list-style-type: none"> ♦ Limited Communication skills, ability and willingness to understand the manufacturing process
	Machine Operators	<ul style="list-style-type: none"> ♦ Insufficient knowledge of machine operation and use ♦ Ability to understand & follow instructions/ manuals ♦ Limited ability to carry out basic repairs and troubleshooting
Trade (Retail + Wholesale)	Store/Department Manager	<ul style="list-style-type: none"> ♦ Understanding of cross functional activities in the store esp. logistics, marketing and merchandising ♦ People management skills ♦ Vendor Management
	Billing Associate/ Accountants/ Computer operators	<ul style="list-style-type: none"> ♦ Knowledge of transaction processing software and cash management ♦ Knowledge of tally/accounting practice
	Sales/Customer Service personnel	<ul style="list-style-type: none"> ♦ Product specific knowledge ♦ Customer service and Inter personal skills

4.15.8 Recommendations

Future Growth Opportunities in Kabirdham

In the context of the current profile and proposed investments in Kabirdham, the demand-supply gap for human resources at various skill levels has been analyzed. The observations have been augmented by primary interactions with industry & industry association representatives in the district and government officials at the state and district level. Based on our analysis and considering factors like high growth and employment potential, priority sectors, investment trends, etc., the following sectors have been identified as having growth opportunities for employment and skill development in Kabirdham.

Table 261: Key Growth Sectors - Kabirdham

#	Priority Sectors	Growth opportunities in skills development and employment
1.	Agriculture	<ul style="list-style-type: none"> Agriculture currently provides employment to around 85.3% of the workers in the district. Cultivation of paddy along with production of different varieties of pulses and vegetables is expected to employ a significant section of the workforce. Kabirdham is a NFSM district for both rice and pulses. It is anticipated to be the residual & largest incremental employer in the district accounting for around 50.2% of the total incremental demand for manpower.
2	Building & construction	<ul style="list-style-type: none"> Construction is another major contributor in the district economy which is expected to grow at around 11.2% (2012-22). The total budgeted value for ongoing building and construction activities (building and roadwork) in Kabirdham for the year 2013-14 is allocated at Rs. 104 crores³¹². Building and construction is projected to be one of the chief employers in the district with approximately 11.2% of the total incremental demand for employment estimated to come from the sector.
3.	Food processing	<ul style="list-style-type: none"> Food processing sector is expected to contribute to 4.8% of the incremental demand in the district. The micro and small enterprises in the district are the major contributors of growth in this sector. Among the MSMEs, Agro based industries has the highest investment at 436 lakhs.
4.	Trade (Retail + Wholesale)	<ul style="list-style-type: none"> Trade (Wholesale + Retail) is one of the largest employers of the district, contributing to about 3.6% of the total employment in the district. Due to the booming manufacturing industry, especially steel and power as well as growth in building and construction activities, trade of raw materials would facilitate growth in the sector resulting in increased manpower demand.
Source: Deloitte Analysis		

Considering the economic and skill landscape of Kabirdham, the table below indicates the priority areas of focus for key stakeholders involved. These observations have been mainly derived from the growth opportunities identified above and through primary interactions with industry and industry association representatives in the district along with inputs from the students, training institutes and government.

Table 262: Key Recommendations for Stakeholders - Kabirdham

Stakeholder	Priority Areas
NSDC	<p>NSDC can focus the efforts of its training partners and prioritize it's funding in the following key sectors identified in the district, viz.</p> <ul style="list-style-type: none"> ♦ Agriculture ♦ Building and Construction

³¹² Chhattisgarh Public Works Department

Stakeholder	Priority Areas
	<ul style="list-style-type: none"> ♦ Manufacturing – Food Processing ♦ Trade (Wholesale + Retail)
Private training providers	<ul style="list-style-type: none"> ♦ There is a need for courses in building and construction sector owing to the greater demand for more trained workers in the sector. Additionally, courses in Agriculture, Food Processing and trade (wholesale + retail) can also be explored. ♦ There is a need for capacity development of the current trainers as highlighted in the youth survey through mentorship and Train the Trainer (TTT) programs. The private training providers should collaborate with sector specific Mentor Institutions for Capacity Development and Training. ♦ The training institutes should introduce/ substantiate multi-disciplinary courses in sectors such as trade, food processing, building & construction etc. instead of focusing on single specialization. ♦ Moreover, the skill development institutes should also concentrate on the design and delivery of bridge courses with a focus on communication, language, basic IT and soft skills to make students job ready as highlighted in youth survey as well. ♦ In order to promote self-employment in the district, entrepreneurship development courses in the high growth sectors identified may be introduced.
Government	<ul style="list-style-type: none"> ♦ The state government may initiate formation of State-level Industry Council (SIC) which would act as an interface between Industry and Academia and aid in industry-institute interactions for the districts. ♦ It may also develop and introduce Regional/ District-level Faculty Development Cells/ Centres (FDCs) which can be housed in select mentor institutions. ♦ To encourage self-employment, the MSME-DI, Raipur should arrange multiple product-cum- process oriented programs in the district like Entrepreneurship Skill Development programmes (ESDPs), Entrepreneurship Development Programmes (EDPs), Industrial Motivation Camps (IMCs), BSDPs etc. for different groups of unemployed youth, people from weaker sections of the society, minorities, SCs & STs, technocrats, etc. with an objective of developing entrepreneurial qualities and preparing new entrepreneurs to setup their own small enterprises. ♦ Focus on training or providing extension support services in agricultural products processing, forestry and animal husbandry (including dairy & poultry) as the majority of for the workers are dependent on Agriculture.
Industry	<ul style="list-style-type: none"> ♦ More industry interactions could be initiated in the Agriculture, Building & Construction, Food Processing and Trade (Wholesale + Retail) sectors in the district. ♦ Industry players should participate in relevant SSCs to provide inputs on the qualification requirement, course component etc. especially in the high growth sectors identified in the district. ♦ Industry players should also participate in improving upon the current course curriculum as observed in the youth survey where around 68% of the respondents quoted that the current education/training received by them is not in alignment with the potential job requirements. ♦ The major private players as well as public sector enterprises in the state should undertake and encourage vocational training as part of their CSR activities either by partnering with the Skill Development Institutes for training or providing funds/resources for the same.

4.16Kondagaon

4.16.1 District Profile

Kondagaon district was formed after its separation from Bastar district in January 2012. The district is a part of Bastar division. The district is surrounded by Bastar in south, Dhamtari in north, Kanker and Narayanpur in west and Jharkhand on the east. Kondagaon is a manufacturing center of handicrafts that are sold throughout India under the name of Bastar art. The district is also famous for its timber and rice mills. It extends over an area of 7768.91 sq. Km³¹³. The district is divided into 5 blocks, 263 gram panchayats and 548 villages. Out of 548 villages, 498 are inhabited, 4 are uninhabited and the remaining 46 are forest villages³¹⁴. The district headquarter is Kondagaon city.

Forests account for 53.50% of the total geographical area of the district³¹⁵. The forest cover of Kondagaon comprises of very dense forest (16.8%), moderately dense forest (54.1%) and open forest (29.1%)³¹⁶.

Map 17: Kondagaon District



Table 263: Kondagaon District Profile

#	Indicator	Kondagaon	Chhattisgarh	% Share
1.	Area, in sq.km.	7768.91	135,190	5.7
2.	No. of sub-districts	5	149	3.4
3.	No. of inhabited villages	498	20126	2.5
4.	No. of households (lakhs)	1.16	56.51	2.1
5.	Average Land holding size (Ha)	1.11*	1.17	-
6.	Forest area cover	53.50% ³¹⁷	41.18%	-

Source: Census 2011, Collectorate Office-Kondagaon, Directorate of Economics and Statistics- Govt. of Chhattisgarh, State of Forest Report 2011-Forest survey of India; Deloitte Analysis

* Data is for undivided Kondagaon (including Bastar)

³¹³ Collectorate Office, Kondagaon

³¹⁴ Census 2011

³¹⁵ State of Forest Report 2011-Forest survey of India (Data is for undivided Kondagaon which includes Bastar & Narayanpur)

³¹⁶ *ibid.*

³¹⁷ *ibid.*

4.16.2 Demography

As per Census 2011, Kondagaon has a total population of 578,326 of which 89.88% of the people reside in the rural areas³¹⁸. The decadal population growth in Kondagaon during 2001-2011 was 17.83%³¹⁹, which is lower than the state average of 22.61% during the same period. The population density in the district is 74 persons per sq. km as compared to the state average of 189 persons per sq. km³²⁰.

As of 2011, Kondagaon is the 23rd most populous district of Chhattisgarh and has a population share of 2.26% at the state level. The share of ST population in the district is much higher than the state average.

The sex ratio of Kondagaon is higher than the state figure with around 1034 females per 1000 males³²¹. About 61.3% of the population is in the working age population class group which is comparable to the state.

Table 264: Demographic Indicators of Kondagaon

Demography	Kondagaon	Chhattisgarh
Population (2011)	578,326	25,545,198
Population 15-24 (2011)	115,672	5,144,257
Decadal Population Growth Rate (2001-11)	17.83%	22.61%
Population density per sq. km (2011)	74	189
Percentage of Urban Population (2011)	10.02%	23.24%
Sex Ratio (2011)	1034	991
Working age population (15-59) as a percentage of total population, %	61.3%	60.1%
Per Capita Income (2008-09)	Rs. 18,504 ³²²	Rs.28,263
Source: Census of India 2011, Directorate of Economics and Statistics- Govt. of Chhattisgarh, Deloitte Analysis		

Key Observations:

- ♦ The sex ratio of Kondagaon at 1034 females per 1000 males is much higher than the state average of 991 females per 1000 males.

³¹⁸ Census 2011

³¹⁹ *ibid.*

³²⁰ Census 2011 and Deloitte Analysis

³²¹ *ibid.*

³²² At 2004-05 constant prices, Deloitte Analysis

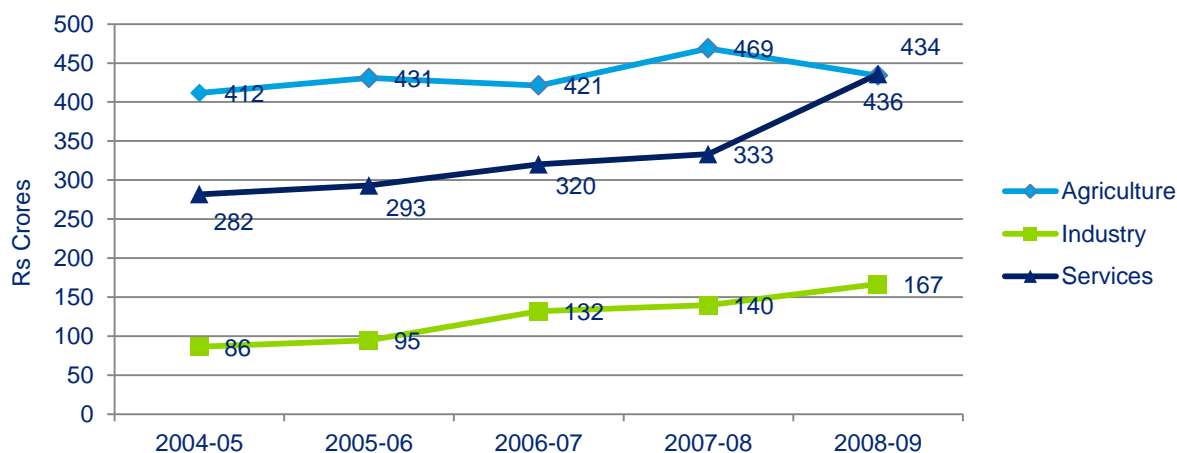
4.16.3 Economic Profile

Kondagaon was formed in the year 2012 from erstwhile Bastar. As per the analysis, Gross District Domestic Product (GDDP) of Kondagaon in the period 2005-09 (estimated at 2004-05 constant prices) has grown at a CAGR of 7.4% which is less than the state growth rate of 9.6% in the corresponding period. At Rs 1036.43 Cr., Kondagaon ranked 22nd in the state in terms of economic activity in 2009. Kondagaon contributed 1.50% to the Gross State Domestic Product in the same year.

Kondagaon's economy is pre-dominantly Services sector based, **with the share of the Services sector in district economy being 42.0% in 2008-09**. The shares of Agriculture and Industry sector in the district economy are 41.9% and 16.1% respectively. Both Industry and Services sectors have grown consistently from over the period 2005-09. The Industry sector has shown the highest growth rate in the district over the period 2005-2009 with a CAGR of 17.9% followed by Services and Agriculture sectors which registered a CAGR of 11.5% and 1.3% respectively.

The sector-wise GDDP growth and distribution from 2005-09 is given in the figures below:

Figure 283: Sectoral Share of GDDP, 2004-05 to 2008-09, Kondagaon



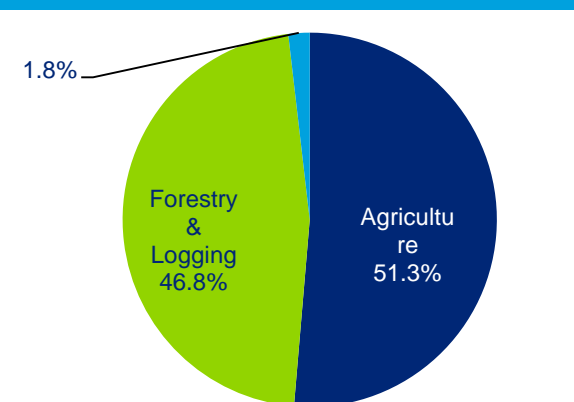
Source: Directorate of Economics and Statistics-Govt. of Chhattisgarh, 2004-05 base price

Agriculture sector

The contribution of Agriculture sector to GDDP was 41.9% in 2008-09. Agriculture and Forestry & Logging activities were the main contributors to the total output of the Agriculture sector in the year 2008-09.

Forests play an important role in the lives of the people of the district. Many people earn their livelihoods by collecting forest products like Tendu leaves, Tamarind, Mahua, Chironjee. Nearly half of the district is covered by forest, which provides an ample opportunity to focus and expansion of this sector. Kondagaon falls under the Kanker forest circle. The important non-nationalized species found in South Kondagaon are Kusum(Lac), Imli, Mahua, Kusum(Oil Seed), Karanj, Chironjee, Tikhur, Shahad, Aonla, Baheda, Dhawai, Satawar, Kalijeeri, Bel, Baibiding, Malkangiri, Bhelwa, Marorfalli and Nagarmotha while the important non nationalized species found in North Kondagaon are Kusum(Lac), Imli, Mahua, Kusum(Oil Seed), Karanj, Chironjee, Tikhur, Shahad, Aonla, Baheda, Dhawai, Kalijeeri, Bel, Baibiding, Malkangiri and Bhelwa.

Figure 284: Sub-sectoral break-up of Agriculture sector (2008-09), Kondagaon



Source: Directorate of Economics and Statistics- Govt. of Chhattisgarh, Deloitte Analysis

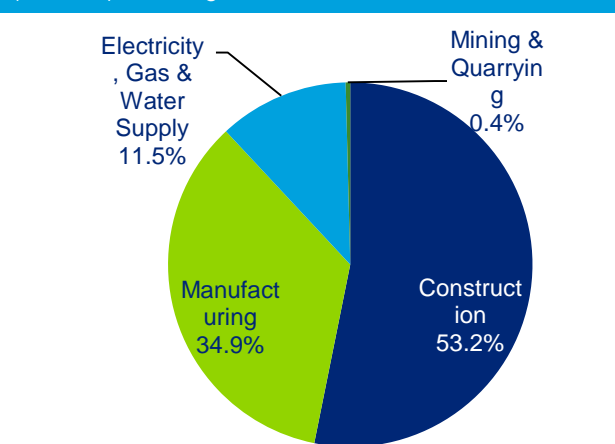
Industry sector

The Industry sector (mining & quarrying, manufacturing, construction, electricity, gas and water supply) contributed around 16.1% to the GDDP in 2008-09. Construction was the major contributor to the Industry sector in 2008-09 with a sectoral contribution of around 53.2%. The total budgeted value for ongoing building and construction activities (building and roadwork) in Kondagaon for the year 2013-14 allocated at Rs. 230 crores shows the current focus of the district on the sector³²³. Manufacturing is another major contributor in the Industry sector in the district with a sectoral contribution of about 35%.

The key industries in the MSME sector in Kondagaon includes agro based industries and handlooms and handicrafts. The district is also famous for timber mills.

Mining and Quarrying activities are practiced to a limited extent in the district. The total mineral

Figure 285: Sub-sectoral break-up of Industry sector (2008-09), Kondagaon



Source: Directorate of Economics and Statistics- Govt. of Chhattisgarh; Deloitte Analysis

³²³ Chhattisgarh Public Works Department

revenue receipt from mining of minerals in the district in 2012-13 was Rs. 201.84 lakhs (Minor minerals: Rs. 194.10 lakhs and others: Rs. 7.74 lakhs)³²⁴.

Handlooms and handicrafts

Handicraft industry is one of the major contributors to the district economy. Kondagaon is the hub for manufacturing of handicrafts that are sold throughout the world under the name of Bastar Art. The art is practiced amongst the tribals of the region and is known all over the world for their unique artifacts. Kondagaon is famous for the finest Bastar handicraft like bell metal figures, wood craft, wrought iron and bamboo artifacts. It is famous for local handicrafts especially the terracotta elephants that are sold across the country. It is also famous for forest based metal crafts as the same is available in abundance in the district. Handicraft is one of the major sectors of the district and it is expected to contribute to the district economic growth in the future as well. The Chhattisgarh Handicrafts Development Board has an established regional office in Kondagaon. Owing to its contribution in the handloom and handicraft sector, **Kondagaon is also known as Shilpagram. There are around 50 handicraft clusters in Kondagaon earmarked for the development of various art forms like bamboo, bell metal, terracotta, wood carving, wrought iron and sisal/jute**³²⁵.

A craft city with investment potential of 10 crores is coming up in Kondagaon which is expected to be completed by 2015. It will be spread over 10 acres and will be surrounded by neighboring craft villages.

Under the **Rural Business Hub Scheme run by the Ministry of Panchayati Raj**, two projects have been announced in Kondagaon on rural handicraft and Bell Metal. MoU's has been signed for Kondagaon Handicraft Rural Business Hub to promote handicraft items from this area. As per the list of MoU's signed under the Rural Business Hub scheme shared by the Press Information Bureau, GoI, following MoU's have been signed to promote handicrafts from Kondagaon as on 30-12-07:

S#	Name of the GP/BP/District/State	Name of the Company	Handicraft Product
1	Kondagaon Block Panchayat (Karanpur, Dahikonga and Sonabal)	SAATHI, Kondagaon (NGO)	Bell metal crafts
2	Farasgaon & Kondagaon Block Panchayats (Umargaon)	SAATHI, Kondagaon (NGO)	Wrought iron handicrafts
3	Kondagaon Block Panchayat (Dahikonga)	Adarsh Shilp Sakthi Mahasamug (NGO)	Bell metal crafts
4	Kondagaon Block Panchayat (Golawand)	Bastar Craft Development Association (NGO)	Wooden crafts
5	Kondagaon Block Panchayat & Barkai of Makdi Block, Bastar	Hastshilp Udhog Sahakari Sanstha Samiti	Bell metal crafts

³²⁴ Directorate of Geology & Mining, Chhattisgarh

³²⁵ Chhattisgarh Handicrafts Sector Profile, Chhattisgarh Handicrafts Sector Meet, 2012

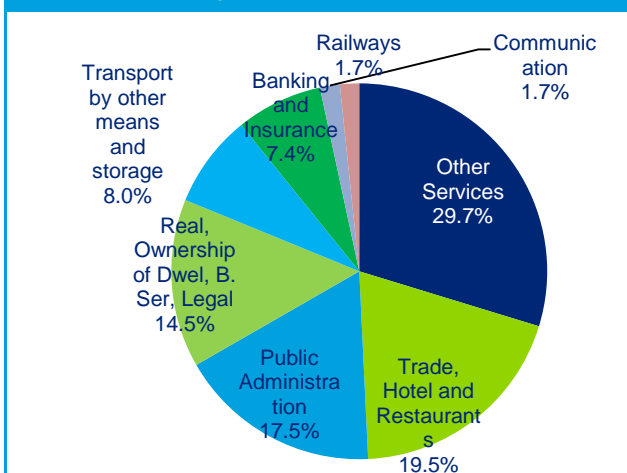
Services sector

The Services sector contributes to about 42.0% of the GDDP in the year 2008-09. One of the key contributors to the Services sector in the district is **trade, hotel and restaurants contributing approximately 19.5%** in the Services sector economic contribution.

Kondagaon lies on NH 43 and can be reached from Raipur or Jagdalpur. Raipur airport and Jagdalpur railway station are the nearest airport and railway station from Kondagaon respectively.

With a CAGR of about 19.8% and 16.5% over the period from 1999-2007, banking & insurance and communication were among the fastest growing sectors in the district, though their absolute sizes are small.

Figure 286: Sub-sectoral break-up of Services sector (2008-09), Kondagaon



Source: Directorate of Economics and Statistics- Govt. of Chhattisgarh; Deloitte Analysis

Key Observations:

- ♦ Kondagaon's economy is pre-dominantly Services sector based, **with the share of the Services sector in district economy being 42.0% in 2008-09.**
- ♦ The shares of Agriculture and Industry sector in the district economy are respectively 41.9% and 16.1% respectively.

4.16.4 Employment Profile

Kondagaon ranks 23 in the state in terms of overall population, accounting for around 2.3% of the total state's population.

The adjacent figure summarizes the estimated workforce in Kondagaon in the context of the total population of the district.

Out of the total population of 5.78 Lakhs in the district, the working age population (between 15-59 age group) constitutes nearly 61.3% which is comparable to the state average.

Based on the labor force participation rate and the worker participation rate estimates for the state, the available labour force is estimated to be around 2.53 lakhs in the district, and the workforce is estimated at 2.49 lakhs or nearly 70% of the working age population.

Around 83% of the workforce in the district is engaged in Agriculture sector in 2011, with the sector contributing around 29.9% to the GDDP. The Services sector which contributed about 40.5% of the district GDDP in the year 2011 is the second highest employer in the district employing around 11% of the workforce.

Figure 287: Total Workforce in Kondagaon (2011)

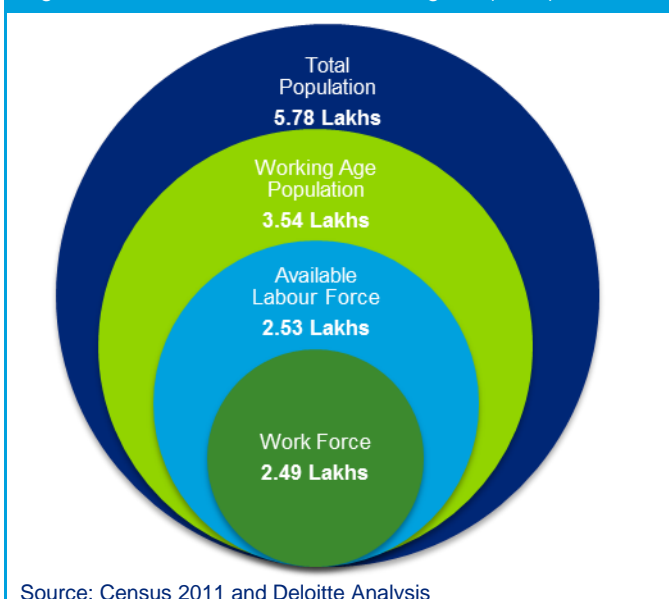
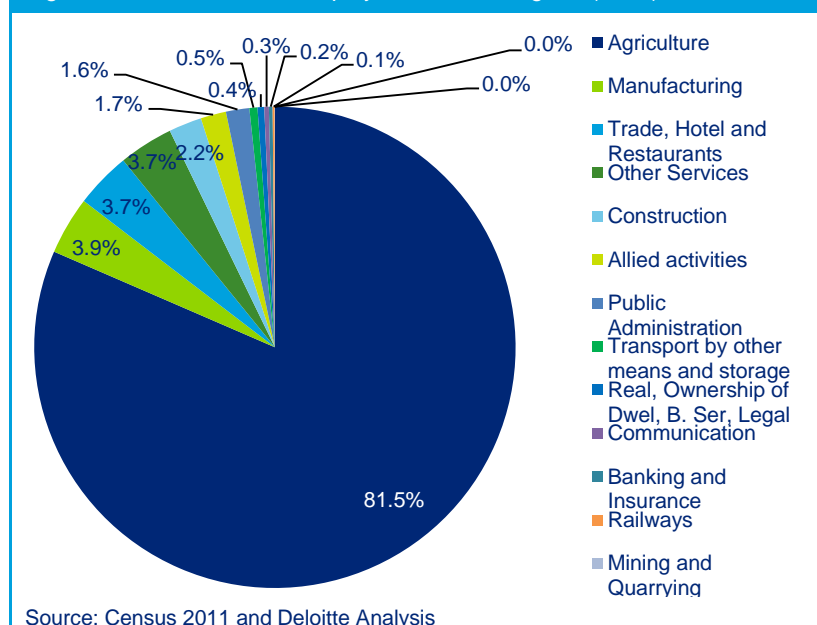


Figure 288: Sector wise employment in Kondagaon (2011)



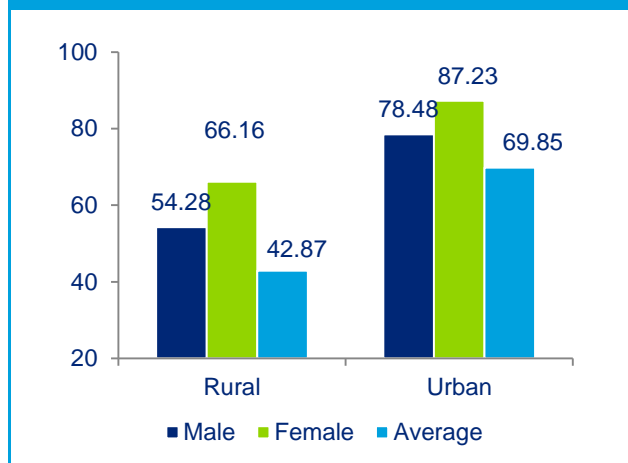
The sector-wise employment of Kondagaon for the year 2011 has been shown in the adjoining figure. Agriculture contributed to 81.5% of the total employment in the district. Manufacturing (3.9%) was the second highest employer in the district followed by trade, hotels & restaurant (3.7%), other services (3.7%) and construction (2.2%).

The top five sectors in the district in terms of employment account for around 95% of the total employment of the available workforce in Kondagaon in 2011.

4.16.5 Education Infrastructure

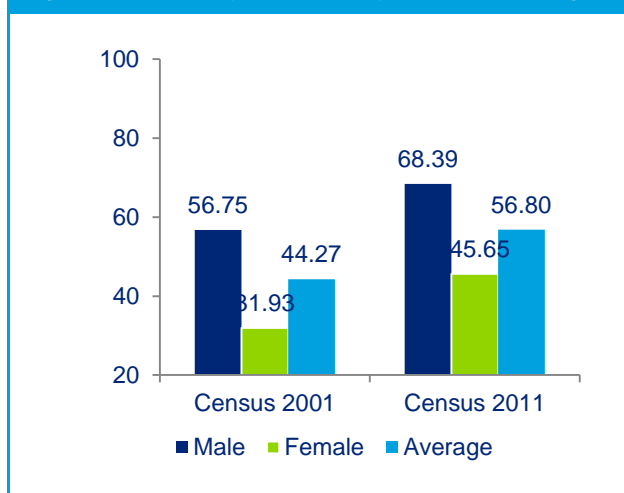
Kondagaon has a lower literacy rate of 56.8%³²⁶ in comparison to the state average of 70.3%. In 2011³²⁷, male and female literacy rates stood at 68.39% and 45.65% respectively, showing an improvement from the 2001³²⁸ figures of 56.75% and 31.93%, respectively. The decadal growth rate in literacy suggests that female literacy is growing at a very fast pace than that of male literacy however, still a wide gap exists between male and female literacy rate.

Figure 289: Literacy rate 2011 (by residence), Kondagaon



Source: Census of India 2011, Deloitte Analysis

Figure 290: Literacy rate 2011 (by Gender), Kondagaon



Source: Census of India, 2001 and 2011, Deloitte Analysis

School Education

Kondagaon has a total of 1,345 primary schools, 646 upper primary schools, 75 secondary and 57 higher secondary schools³²⁹.

Table 265: Status of school education infrastructure in Kondagaon, 2013

#	Educational Statistics	Units in Kondagaon	Units in Chhattisgarh	% Share of District in State
1	Primary School	1345	38160	3.52%
2	Upper Primary School	646	16224	3.98%
3	Secondary School	75	2260	3.32%
4	Higher Secondary School	57	2788	2.04%
5	NER (Primary) (2010-11)	100%*	98.0% ³³⁰	-
6	NER (Upper Primary) (2010-11)	47.7%*	67.8%	-

Source: District Report Card, State Report Card and Kondagaon Govt. website
 *Data is for undivided Kondagaon (including Bastar & Narayanpur)

³²⁶ Deloitte Analysis

³²⁷ ibid.

³²⁸ Data is for undivided Kondagaon (including Bastar & Narayanpur)

³²⁹ District Collectorate Office, Kondagaon

³³⁰ Data is for 2008-09

Vocational Education

Kondagaon has a total of **4 ITIs in the district**. There is no exclusive woman ITI in the district. Amongst the trades offered in the district, Computer Operator and Programming Assistant (COPA), Fitter and Electrician courses have the maximum units affiliated among ITIs. The total capacity of the ITIs in the district is 560. The number of courses available in the ITIs and their capacity are listed in the table below:

Table 266: ITIs in Kondagaon and their capacity

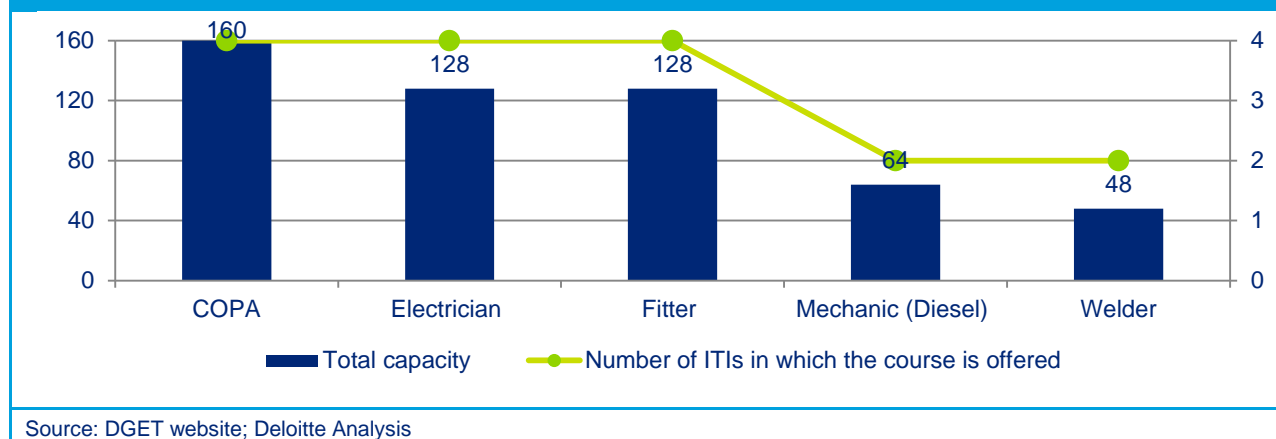
Name of ITI/ITC	Number of courses offered	Total Units affiliated	Total Capacity
Govt. ITI, Kondagaon	4	8	136
Government Industrial Training Institute, Keshkal	4	7	120
Govt ITI Vishrampur	5	10	160
Government Industrial Training Institute, Makdi	5	9	144
Total	6*	34	560

Source: Department of Higher and Technical Education- Chhattisgarh; Deloitte Analysis

*Total number of different courses offered by ITI's in Kondagaon

The courses offered in the ITIs in Kondagaon are given in the figure below:

Figure 291: Major courses offered in ITIs, Kondagaon



According to Chhattisgarh State Skill Development Mission Website, as of 12th March, 2014, Kondagaon has 21 Vocational Training Providers (VTPs) under which there are 2226 registered beneficiaries. The following table highlights the courses offered in vocational education, which currently meet requirements of 10-12 sectors.

Table 267: Courses offered in vocational education, Kondagaon

Sector	ITI trades and Units affiliated	Courses Offered by VTPs
Auto and auto components Electronics and IT hardware	Electrician(8), Fitter(8), Mechanic and machinist (4) Welder(4)	Electrical, Electronics, Automotive repair, Fabrication
IT and ITES, Tourism, hospitality and travel, Banking, financial services	Computer Operator and Programming Assistant(8)	ICT, Soft skill

and insurance	Driver cum Mechanic(2)	
Textiles and clothing, Leather and leather goods, Gems & Jewellery	-	Textile sector, Garment making
Infrastructure (Transport, Energy, Water & Sanitation, Building, construction and real estate Construction material and building hardware	-	Construction
Unorganized sector (particular reference to agriculture, security, plumbing, domestic worker, foundry, etc.)	-	Agriculture, Beauty culture & Hair dressing, Paint
Source: CSSDA Website		

The following table highlights the NSDC partners present in Kondagaon as of January 2014 and the courses offered by them.

Table 268: NSDC partners present in Kondagaon

Name of Partner	Sectors in which course is offered	Courses offered
AISECT	IT/Software	<ul style="list-style-type: none"> ♦ Diploma in Computer Applications (DCA) ♦ Post Graduate Diploma in Computer Applications (PGDCA) ♦ Diploma in Computer Programming and Applications (DCPA)
	ITES-BPO	<ul style="list-style-type: none"> ♦ Diploma in Computer Applications (DCA) ♦ Post Graduate Diploma in Computer Applications (PGDCA) ♦ Diploma in Computer Programming and Applications (DCPA)
Source: NSDC		

Higher Education

The status of higher education in Kondagaon is not very promising. Out of a total 590 colleges in the state, only 2 colleges³³¹ are in the district of Kondagaon indicating the district's share in the higher education space of the state at just 0.3%. This is lower in comparison to the share of population of Kondagaon to the state (2.3%). Moreover, both the colleges offer only **general degree courses** (Arts, Science and Commerce).

Key Observations:

- ♦ The literacy rate of the district is lower than the state average, which is a matter of concern. In addition, there exists a wide gap between male and female literacy rates.
- ♦ There are 4 ITI's and 21 VTP providers active in the district.
- ♦ The share of Kondagaon in the higher education space of the state is just 0.3% as there are only 2 colleges in the district offering general degree courses.

³³¹ Kondagaon Collectorate Office

4.16.6 Youth Aspirations

The FGD was conducted at the Government ITI, Kondagaon. The key observations about aspirations of the youth of the district are highlighted below:

Table 269: Youth Aspiration – Key Responses - Kondagaon

Parameters	Responses
Job Preference	Most of youth have indicated their desire to get employment with the government sector .
Factors influencing selection of training institution	Proximity to home and availability of preferred course are the main factors behind youth's decision to choose amongst various training institutions.
Preferred Course	Computer related courses (software & hardware) appear to be most popular among the youth in the district.
Migrating for job	Majority of youth has indicated their preference to get job within the home district .
Salary Expectations	The salary expected by the youth was reported to be in the range of Rs.15, 000 to Rs. 20,000/- .
Areas of concern/ aspirations- Infrastructure	<p>During the FGD, following views were expressed with respect to infrastructure in educational institutions:</p> <ul style="list-style-type: none"> • Youth demanded the improvement of infrastructure of institutes with respect to building, machineries, tools, computer and equipment. • Inadequate provisions for drinking water and lack of separate toilet for girls and boys were reported to be one of the major concerns in the institute. • Non-availability of hostel for the students was also highlighted as an area of concern by the youth. Youths from ITI also expressed the need to have separate hostel for girls.
Areas of concern/aspirations- Course Curriculum	<p>Following views were expressed regarding the curriculum of courses offered in the educational institutions:</p> <ul style="list-style-type: none"> • Lack of updated courses as the current course content is not latest and up-to date with the industry requirements. • Lack of teaching skills among the teachers. Youth is not happy with the course pedagogy and with the current capacity of the teachers. • Lack of industry tours and placement facilitation by the institute.
Other concerns	<ul style="list-style-type: none"> • Majority of the youth have expressed that there are no employment prospect within the district due to which they have to migrate to other district. • Youths have also expressed that more intense and good quality training may improve their employability. • There are no provisions for apprenticeship training within the district. • Majority of students expressed that there are inadequate provisions of campus placement in most of the trades.
Suggestions given by youth	<ul style="list-style-type: none"> • Infrastructure of the institutes needs to be upgraded on priority. The institutes should be strengthened with basic infrastructure which provided toilet and drinking water facility. • Industry tie-ups should be ensured which would provide industry tours and facilitate in placement. • The youth expect the course content to be updated and ensure that it meets the latest industry requirements. • Examinations should be conducted in both English and Hindi. • The certificates of successful completion of course should be provided to the youths within six months of completion of course.

A sample survey was conducted with youth at gram panchayat level & those coming out from various educational institutions (Government & private) to understand & capture their aspirations. The findings are presented below:

Job preference by youth

The **majority of the youth surveyed (58%)** prefer to get a job within their home district as is evident in the adjacent figure. Around 25% of the students were willing to migrate within the country if better job opportunity is provided. Those who preferred to stay within the state for employment related purposes stood at 8%.

Parameter for Institute Selection

A majority of the students surveyed (67%) quoted the availability of preferred course/trade as the main parameter for selection of an institute for higher education. Whereas about 33% of the students consider the better job prospects owing to reputation of an institute as a criteria while choosing the institute / training centre.

Youth Perception Mapping

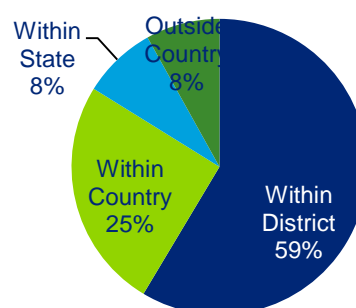
Youth perception mapping was undertaken to understand the level of satisfaction of the youth/students with either their current institute or their experience and feedback on the available educational infrastructure. The results are summarized below:

Low satisfaction with placement / jobs available post training: One of the major highlights of the youth survey was the fact that **all the students surveyed expressed their dissatisfaction over the placement opportunities in the institute or jobs available post training**. This appears to be one of the main reasons for migration as youths are forced to move out of the district due to lack of sufficient job opportunities. This underscores the need to take appropriate measures to boost the employment opportunities in the district.

Non-availability of latest technologies and equipment for training: An overwhelming **majority (85%) of the students surveyed expressed their dissatisfaction with the availability of latest technology & equipment for training in the institute**. They felt the lack of equipment as a major constraint to their appropriate level of skill development demanding thus the institute to be adequately equipped and upgraded with latest technology. This really highlights the need to upgrade the training infrastructure which can help in enhancing the skill levels of the students.

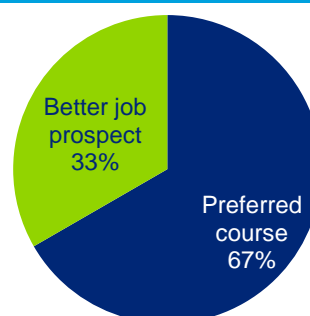
Dissatisfaction with capability of institute's faculty in teaching: Around **23% of the students felt that the quality of teaching faculty is not satisfactory (especially the students from Government ITI's)** and needs significant improvement. They also expressed that the faculty has not been updated on

Figure 292: Job Preference by Youth



Source: Deloitte Analysis

Figure 293: Parameter for Choice of Institute

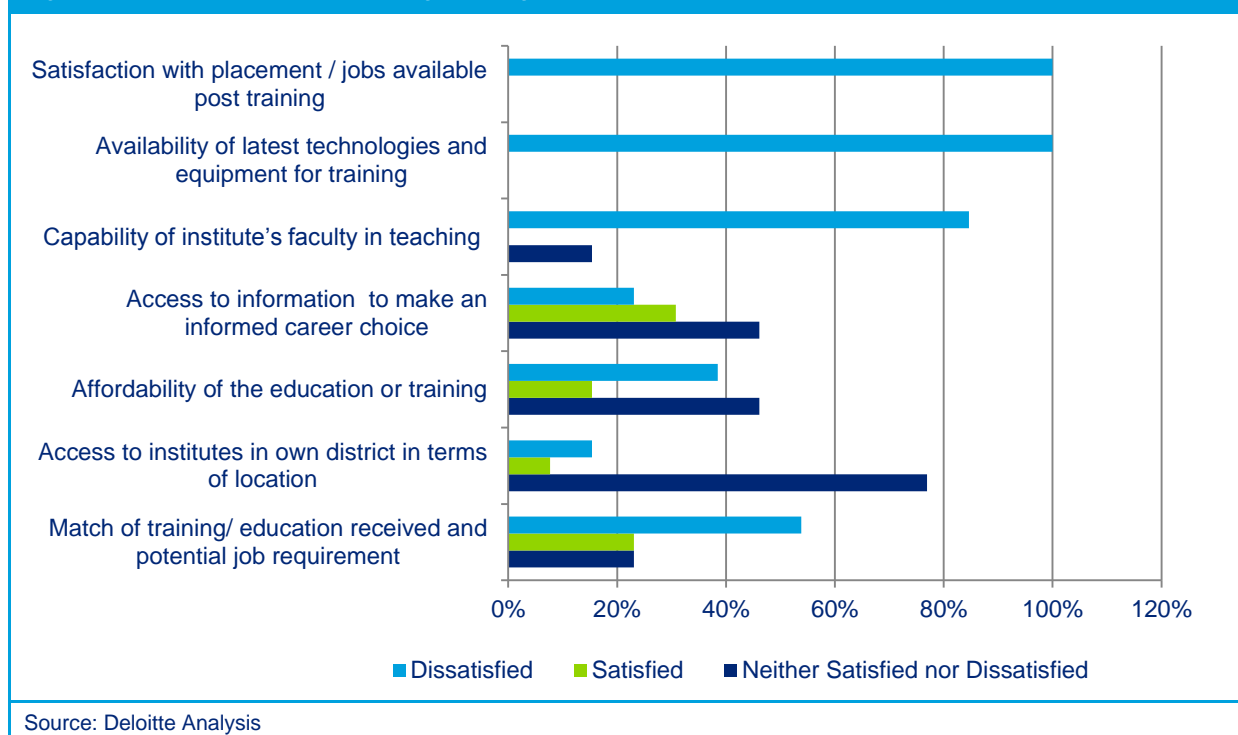


Source: Deloitte Analysis

the current market scenarios. About 31% of the students were somewhat satisfied with the training faculty while 46% appeared to be satisfied with the faculty.

Need for better access to information to make an informed career choice: There was a mixed reaction among students when it came to their access to information for making an informed career choice. While **46% of the students appeared to be highly satisfied with respect to accessibility to information** for making an informed career choice, around **38% of them felt that they did not get proper accessibility to information to make an informed career choice**. Also, about 15% of the students appeared to be somewhat satisfied with the accessibility level of information however, they expressed the need to have regular counseling sessions in order to make informed decision on their career choice.

Figure 294: Youth Perception Mapping, Kondagaon



Affordability not as high a concern as quality and value for money in education or training: An overwhelming **majority (77%) of students surveyed expressed their satisfaction in terms of affordability of training/education**, while 15% found the fee to be out of their reach and expressed the need to have scholarship scheme by Government to finance their training.

Access to institutes is an issue in rural areas: Around **54% of the students surveyed expressed their satisfaction with the accessibility of the educational institutes** in terms of location. They found the institute to be located in an accessible area and safe in terms of the duration of classes. Around 23% students felt the educational institutes to be inaccessible in terms of location.

Satisfaction with utility of post school training/education received in terms of the job performance: The **majority of students (54%) surveyed have shown their dissatisfaction with the utility of post school training/education in terms of job requirements**. While approximately 23% students appeared to be highly satisfied with the post school training/education, an equal percentage was

somewhat satisfied with the school level training. Thus, the survey brings out the need to make the required changes in the course curriculum to make the same application based and industry relevant.

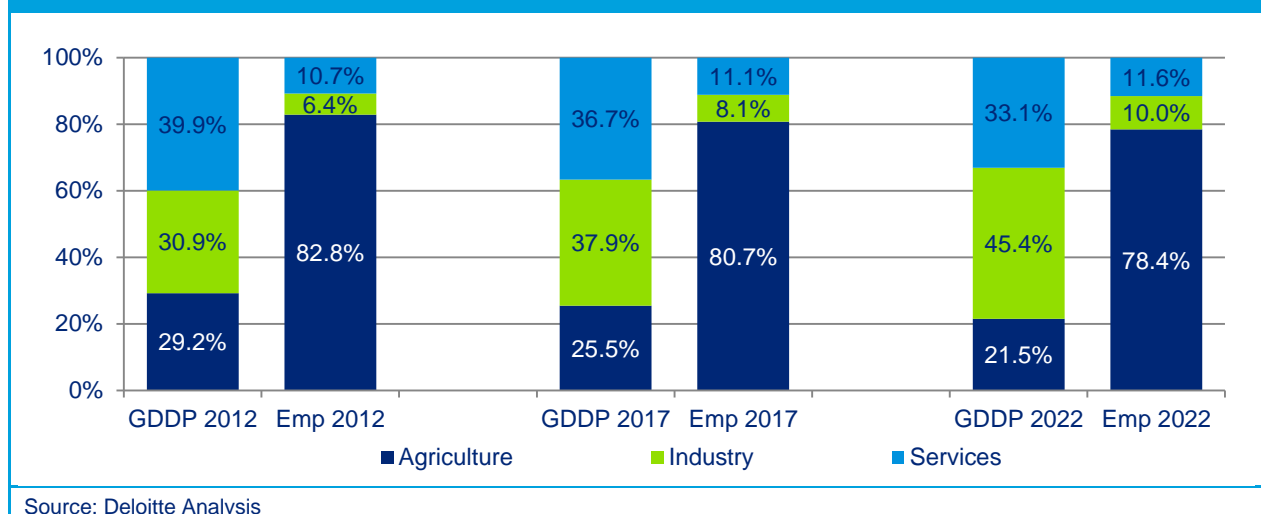
Key Observations:

- ♦ Govt. Jobs were preferred over private, the expected salary ranges from Rs. 20,000- Rs. 25,000/-. While boys were willing to migrate to outside district and state for jobs and education, it was vice versa for girls.
- ♦ The courses preferred by females in terms of vocational training were cutting, tailoring, beauty parlor and COPA. Boys preferred courses like electrician, fitter and computer related courses.
- ♦ Need for updating course content & creating linkages for placement was strongly expressed
- ♦ Improving institute-industry interface to ensure better apprenticeship training was emphasized
- ♦ The youth expect the course content to be updated and ensure that it meets the latest industry requirements.
- ♦ They expressed a need to improve the Infrastructure of the institutes on priority. The institutes should be strengthened with basic infrastructure which provided toilet and drinking water facility.
- ♦ Youth expressed that the lack of quality faculty in the institute may be compensated by inviting visiting faculty from outside
- ♦ The need for career counseling prior to admissions was strongly expressed by the youth

4.16.7 Skill Gap Assessment

The working age population (15-59) constitutes 61.3% of the total district population in 2011 and is comparable to the state average. It is further expected to increase to around 65% by 2022 thereby indicating a greater demand for jobs from the labour force available. To reap this demographic dividend, there would be a need for additional job creation in the district. Similarly to meet the growing demands of the industry, the labour force entering the market must be adequately skilled as per industry requirement.

Figure 295: Comparison of Sectoral share in GDDP & Employment, Kondagaon



Despite Agriculture sector employing the largest share of workforce in the district, its relative contribution to the economic output is diminishing at a faster rate than rate of decrease of employment. If the trends in employment continue, in 2021-22, the share of employment across the Agriculture sector is expected to decline to 78.4% as compared to 82.8% in 2012. The industry and Services sector employment share are estimated to increase to 10.0% and 11.6% respectively, as indicated in the table above.

Incremental Human Resource Demand

As per the methodology, the total incremental demand for manpower in Kondagaon from 2012 to 2022 is expected to be around 0.48 lakh. Following table provides the break-up of the incremental demand for manpower in Kondagaon as per the skill levels required.

Table 270: Estimated Incremental Human Resource Demand ('00) by Skill Level in Kondagaon

	2012-17	2017-22	Total
Skilled	27	30	57
Semi-Skilled	59	67	126
Minimally Skilled	147	149	296
Total	233	246	478

Source: Deloitte Analysis

Some of the key trends observed on the demand side include

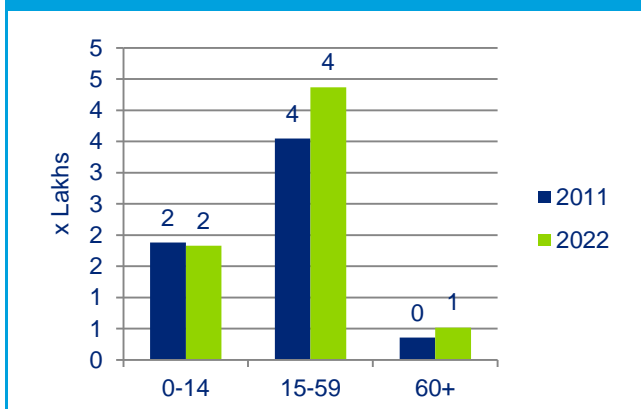
- ♦ *Agriculture sector is expected be the largest incremental demand generating sector in the district (49.5%) with demand largely in the minimally skilled workers (87%).*
- ♦ *Building & Construction (15.0%), Handloom & Handicrafts (5.4%) and Food Processing (5.1%) are the other high incremental demand generating sectors.*
- ♦ *Analysis of formal and informal employment indicates that the incremental demand for manpower in formal sector would come mainly from Building and Construction, BFSI, Handloom & Handicrafts, Food Processing and Public Administration.*
- ♦ *Majority of demand for incremental manpower in the informal sector is projected to come from Agriculture, Building & Construction, Handloom & Handicrafts, Food Processing and Trade (Retail +Wholesale).*

Table 271: Incremental Human Resource Demand ('00) by Skill Level in Kondagaon - Key Sectors

#	Key Sectors	2012-17				2017-22			
		Skilled	Semi-skilled	Minimally Skilled	Total	Skilled	Semi-skilled	Minimally Skilled	Total
1	Agriculture	4	12	106	121	3	12	100	115
2	Building & Construction	5	13	14	31	6	16	18	40
3	Manufacturing (Furniture & Handicrafts)	1	8	4	14	2	10	5	17
4	Food Processing	1	3	7	11	1	4	8	13
5	Others	16	22	16	54	18	25	18	61
6	Total	27	59	147	233	30	67	149	246
Overall Incremental Demand					478				
Source: Deloitte Analysis									

Incremental Human Resource Supply

Figure 296: Age wise distribution of population, Kondagaon - 2011 and 2022 (projected)



Source: Census 2011 and Deloitte Analysis

The population of Kondagaon is expected to increase from 5.78 lakhs in 2011 to 6.72 lakhs by 2022. The adjacent figure provides the current and projected population across various age groups. As per the analysis, the number and proportion of children in 0-14 age group is projected to fall by about 5,000 children, amounting to a fall of 2.7% between 2011 and 2022.

Similarly, the number of persons in the working age group is expected to increase by around 0.82 lakhs during the same period thus representing a potential demographic dividend for the district with a large increase in the employable population. It

presents a huge challenge for the state to make available necessary higher education and skill development facilities as well as ensure productive employment opportunities for its population.

As per the methodology, the estimated incremental manpower supply over a period of 10 years (2012-22) will be around 0.81 lakhs. Incremental manpower supply can be further classified into skilled, semi-skilled and minimally- skilled as per the education qualifications and estimated output of educational and vocational training institutes in the district.

Table 272: Estimated Incremental Human Resource Supply ('00) by Skill Level in Kondagaon

	2012-17	2017-22	Total (2012-22)
Skilled	9	9	18
Semi-Skilled	101	110	211
Minimally Skilled	287	291	578
Total	398	410	808

Source: Deloitte Analysis

Some of the key trends observed on the supply side include

- Proportion of incremental supply of minimally skilled manpower is 71.5%, compared to 26.2% of semi-skilled and 2.3% of skilled manpower (2012-22)
- Kondagaon has very poor higher education infrastructure which contributes to the low supply of skilled manpower. It has only 2 colleges indicating the district's share in the higher education space of the state at just 0.3%. This is lower in comparison to the share of population of Kondagaon to the state (2.3%).
- Over the period of time the proportion of incremental supply of minimally skilled manpower is expected to decline while the incremental supply of semi-skilled manpower is expected to increase owing to the various skill development initiatives in the district. VTPs will play an important part in the provision of skill development and implementation of the SDI scheme.

Incremental Demand Supply Gap

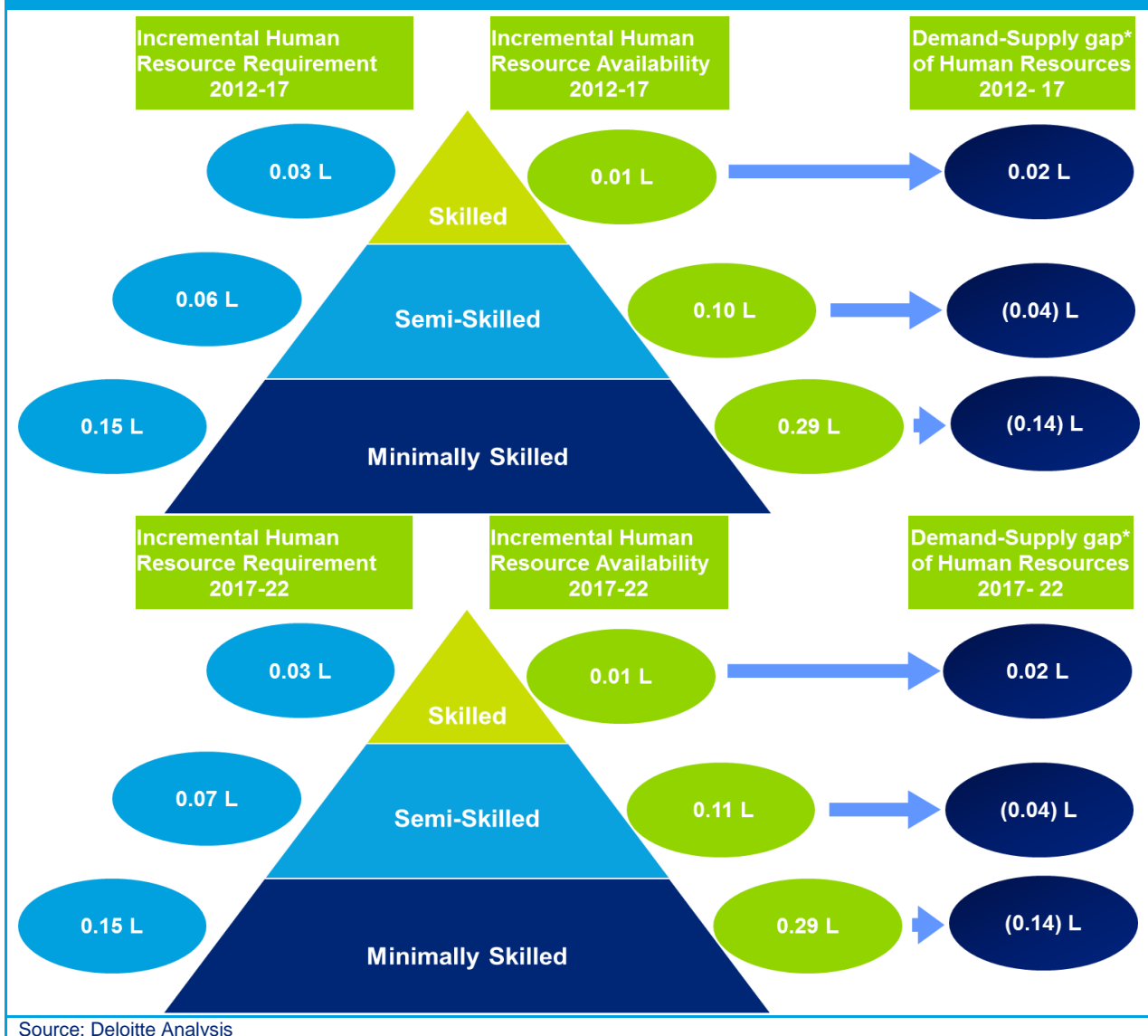
During the period 2012-22, the incremental human resource demand in Kondagaon across all skill levels is estimated to be 0.48 lakh while the supply is projected to be 0.81 lakh indicating thus a surplus of around 0.33 lakh people in the district (refer table below). There is estimated to be an excess supply over demand across the semi-skilled and minimally skilled segments in Kondagaon.

Table 273: Projected Demand Supply gap ('00) by skill levels in Kondagaon

#	District Skill Gap	2012-17				2017-22			
		Skilled	Semi-skilled	Min. Skilled	Total	Skilled	Semi-skilled	Min. Skilled	Total
1	Incremental HR Requirement (Demand)	27	59	147	233	30	67	149	246
2	Incremental HR Availability(Supply)	9	101	287	398	9	110	291	410
3	Demand-Supply Gap	17	(43)	(140)	(165)	21	(43)	(142)	(165)
	Overall Demand- Supply Gap				(330)				
Source: Deloitte Analysis									

During the period 2012-22, the incremental manpower demand supply gap of the district (across all sectors mentioned above) is expected to be a surplus of about 0.33 lakh people with the excess supply across semi-skilled and minimally skilled segments as shown in the following figure.

Figure 297: Incremental Demand-Supply Gap (in lakhs), Kondagaon



Some of the key trends observed on the demand-supply gap include

- ♦ The composition of the human resource demand supply gap in the district over the two different time periods i.e. 2012-17 and 2017-22 is anticipated to remain the same.
- ♦ In the skilled category, a deficit of human resources is estimated owing to the presence of few higher education institutes in the district. The excess supply in the semi-skilled segment presents a case for introducing suitable training programs to augment the skills of this segment and move to the next productive skill level to cater to the demand in the key sectors of growth.
- ♦ As indicated in the adjacent figures, the trend of excess supply is likely to continue in the semi-skilled segment across both the time periods. However, it is pertinent to note that it does not imply industry demand for skills is being sufficiently met in this segment. Approximately 70% of the total semi-skilled

workforce is estimated to be class 12 pass outs having undergone no job/skill specific training. Employability linked skills have emerged as a key area of concern among industry during the primary interactions. The changing trends of the sector including use of new technology and practices imply a need for reskilling and up skilling of existing workers.

- ♦ In line with the rural urban distribution and dominance of agriculture in employment, the major contributor to skill gap is the minimally skilled segment which is in excess in the district and requires suitable skilling and training programs to shift to the more productive semi-skilled and skilled segments.

Qualitative Skill Gaps

The qualitative skill gaps that were highlighted during our primary interactions with industry at Kondagaon are provided in the table below.

Table 274: Qualitative Skill Gaps

Sector	Level	Skill Gap
Agriculture	Tractor operator & mechanics/ Electricians/ Mechanics for repair & maintenance of agricultural tools & implements	<ul style="list-style-type: none"> ♦ Sufficient training to address tool & equipment failures like motor pump failure, gear damage, tyre puncture etc.
Building & Construction	Project Managers/Engineers	<ul style="list-style-type: none"> ♦ Knowledge of design and tools such as AutoCAD etc. ♦ Knowledge of green/eco-building design ♦ Project Management and People Management Skills ♦ Knowledge of appropriate safety practices ♦ Client Management skills (e.g. government officials for approvals, flat owners etc.)
	Supervisors: plumbing, electrical, carpentry, masonry, drilling	<ul style="list-style-type: none"> ♦ Skills in civil- operations of ready mix m/c, earth movers, etc. ♦ Basic repair and maintenance ♦ Exposure to right methodology in construction specific skills like lining, leveling etc. ♦ Site safety concepts and procedures ♦ Lack of finishing skills
	Workmen: plumbing, electrical works, carpentry, masonry, drilling	<ul style="list-style-type: none"> ♦ Basic operating skills related to relevant category ♦ Improved/ better quality in finishing ♦ Site safety concepts and procedures ♦ Ability to understand & follow instructions/ manuals
Handloom & Handicrafts	Designer Marketing/ Procurement Managers	<ul style="list-style-type: none"> ♦ Ability to forecast demand and undertake procurement accordingly ♦ Communication and interpersonal skills
	Artisans	<ul style="list-style-type: none"> ♦ Updated knowledge on latest designs and market requirements
Food Processing	Procurement Managers	<ul style="list-style-type: none"> ♦ Ability to forecast demand and undertake procurement accordingly ♦ Ability to locate and enter into relationships with farmers ♦ Lack of IT skills
	Plant Associates and operators	<ul style="list-style-type: none"> ♦ Limited basic engineering knowledge esp. on practical aspects, process knowledge e.g. distillation ♦ Lack of importance on wastage of resources.
	Material Handlers	<ul style="list-style-type: none"> ♦ Limited awareness on quality, health and hygiene awareness ♦ Limited basic computer skills including barcode reading
	Sales and marketing	<ul style="list-style-type: none"> ♦ Limited Communication skills, ability and willingness to understand the manufacturing process

Trade (Retail and Wholesale)	Machine Operators	<ul style="list-style-type: none"> ✦ Insufficient knowledge of machine operation and use ✦ Ability to understand & follow instructions/ manuals ✦ Limited ability to carry out basic repairs and troubleshooting
	Store/Department Manager	<ul style="list-style-type: none"> ✦ Understanding of cross functional activities in the store esp. logistics, marketing and merchandising ✦ People management skills ✦ Vendor Management ✦ Lack of IT skills
	Billing Associate/ Accountants/ Computer operators	<ul style="list-style-type: none"> ✦ Knowledge of transaction processing software and cash management ✦ Knowledge of tally/accounting practice
	Sales/Customer Service personnel	<ul style="list-style-type: none"> ✦ Product specific knowledge ✦ Customer service and Inter personal skills ✦ Communication skills

4.16.8 Recommendations

Future Growth Opportunities in Kondagaon

In the context of the current economic profile and proposed investments of the district, the demand for human resources at various skill levels has been analyzed. The observations have been augmented by primary interactions with industry & industry association representatives in the district and government officials at the state and district level. Based on our analysis and considering factors like high growth and employment potential, priority sector for the state government, investment trends, etc., the following sectors/industries have been identified with future growth opportunities for employment and subsequently, skill development in Kondagaon.

Table 275: Key Growth Sectors – Kondagaon

#	Priority Sectors	Growth opportunities in skills development and employment
1	Agriculture	<ul style="list-style-type: none"> Agriculture is one of the major activities in the district. Paddy is the main crop produced in the district and it also has a large number of rice mills in the vicinity. Agriculture is providing employment to around 81% of the workers in district in 2013. With an expected growth of 3.6% over the decade (2012-22), it is anticipated to be the major employment provider in the district accounting for around 49.5% of the total incremental demand for manpower in the district over the decade. In absolute terms, the sector is expected to employ an additional 23,654 human resource over the decade.
2	Building & Construction	<ul style="list-style-type: none"> Building & Construction sector in the district is expected to grow at around 12.1% over the decade 2012-22. The total budgeted value for ongoing building and construction activities (building and roadwork) in Kondagaon for the year 2013-14 is allocated at Rs. 230 crores³³². It is projected to be one of the chief employers in the district with approximately 15% of the total incremental demand for employment estimated to come from the sector.
3	Manufacturing – Furniture & Handicrafts	<ul style="list-style-type: none"> Handicraft industry is one of the major contributors to the district economy. Kondagaon is one of the major hubs for manufacturing of handicrafts that are sold throughout the world under the name of Bastar Art. The artisans of the region are famous for their Wood carving, Bamboo, Bell Metal, Terracotta, Wrought Iron and Sisal/Jute work. There are a total 50 existing handicraft clusters in the district³³³. Owing to the potential of handloom and handicraft industry in the district, a craft city with investment potential of 10 crores is planned in Kondagaon. It will be spread over 10 acres and will be surrounded by neighboring craft villages. The project is expected to be completed by 2015. Manufacturing units of furniture & furnishing and handloom & handicrafts is projected to be the third largest employer in the district with approximately 6.4% of the total incremental demand for employment estimated to come from this sector over the period 2012-22.
4	Manufacturing - Food Processing	<ul style="list-style-type: none"> According to the primary interactions in the district, Food Processing (Paddy Processing) is also one of the key economic activities within the manufacturing sector in the district. It is estimated to grow at around 10.4% over the decade (2012-22) and is projected to be one of the key employers in the district in terms of the total incremental demand for employment.

Source: Deloitte Analysis

³³² Chhattisgarh Public Works Department

³³³ Chhattisgarh Handicrafts Sector Profile, Chhattisgarh Handicrafts Sector Meet-2012

Considering the economic and skill landscape of Kondagaon, the table below indicates the priority areas of focus for key stakeholders involved. These observations have been mainly derived from the growth opportunities identified above and through primary interactions with industry and industry association representatives in the district along with inputs from the students, training institutes and government.

Table 276: Key Recommendations for Stakeholders – Kondagaon

Stakeholder	Priority Areas
NSDC	<p>NSDC can focus the efforts of its training partners in the key sectors identified in the district, viz.</p> <ul style="list-style-type: none"> ✦ Agriculture ✦ Building and Construction ✦ Manufacturing - Furniture & Handicrafts ✦ Manufacturing – Food Processing
Private training providers	<ul style="list-style-type: none"> ✦ Since a majority of the population in the state is dependent on Agriculture, the private training providers should focus on training or providing extension support services in agricultural products processing, forestry and animal husbandry (including dairy & poultry) for the workers dependent on the sector. ✦ The private training providers should introduce more courses catering to the workforce dependent on handloom and handicrafts owing to the likely increased demand of trained workers after completion of the craft city project in Kondagaon. ✦ The training institutes should introduce/ substantiate multi-disciplinary courses in sectors such as food processing, building & construction etc. ✦ There is a need for design and delivery of bridge courses with a focus on communication, language, basic IT and soft skills to make students job ready as highlighted by the youth of the district during youth interaction.
Government	<ul style="list-style-type: none"> ✦ The Government should promote and endorse vocational education as a practical alternative to formal education with emphasis on providing job ready courses. ✦ The Government should incentivize vocation education and subsequent certification for the workforce in the district in terms of wage revision. ✦ The government should undertake aggressive marketing and trade promotion of the handicrafts in the state by facilitating participation of the artisans in fairs/exhibitions, branding of the products, providing infrastructural support for technological up-gradation of the manufacturing process and creation of common facility centres in the individual clusters. ✦ The Chhattisgarh Handicrafts Development Board should encourage formation of more handicraft clusters for the artisans of the district and provide handholding services to the individual clusters in terms of financial assistance & marketing services. The individual clusters may be linked to the NABARD/KVIC for loan sanction. The Chhattisgarh Handicrafts Development Board should also initiate more partnerships with TRIFED for marketing of the products prepared by tribals.
Industry	<ul style="list-style-type: none"> ✦ More industry interactions should be initiated in the Manufacturing (furniture & handicrafts), Building & Construction, Agriculture and Food Processing sectors in the district. ✦ The industry should facilitate linkages (both forward as well as backward) in collaboration with the Chhattisgarh Handicrafts Development Board for providing a boost to the Handloom & handicrafts sector which provides employment to a significant section of the population. The industry should facilitate the marketing and export of the handicraft products. ✦ The major private players as well as public sector enterprises in the state should undertake and encourage vocational training as part of their CSR activities either by partnering with the Skill Development Institutes for training or providing funds/resources for the same.

4.17 Korba

4.17.1 District Profile

Korba district, located in the north-western part of Chhattisgarh was accorded the status of revenue district with effect from 25th May, 1998.

The district is a part of Bilaspur division and falls under the Chhattisgarh Plains agro-climatic zone. It is surrounded by Koriya, Surajpur and Surguja districts on the north, Janjgir- Champa in the south, Raigarh in the east and Bilaspur borders it on the western side. It extends over an area of 6598 sq. Km, which is 4.9% of the total state area. The district is divided into 5 tehsils viz. Pali, Korba, Katghora, Kartala and Poudi-Uproda. Korba is the administrative headquarter of the district. The district has 5 statutory towns, 2 census towns, 1 Municipal Corporation, 1 Municipality and 3 Nagar Panchayats³³⁴.



Korba District falls under the hot temperate climate zone and hence the district experiences very hot and dry climate. Asymmetrical ranges of hills alternating with small sporadic plateaus stretch most part of the district with the Maikal range of hills running from north-east to south-west³³⁵. The district is also blessed with lush green forest covering around 51% of the total geographical area. The forest cover of Korba is higher than the state average & comprises of very dense forest (6.1%), moderately dense forest (68.9%) and open forest (25.1%)³³⁶. The district comes under the Mahanadi drainage system although the river does not flow through the district³³⁷. Korba is known for its coal mines.

Table 277: Korba District Profile

#	Indicator	Korba	Chhattisgarh	% Share
1.	Area, in sq.km.	6,598	135,190	4.9
2.	No. of sub-districts	5	149	3.4
3.	No. of inhabited villages	707	20126	3.5
4.	No. of households (lakhs)	2.80	56.51	3.1
5.	Average Land holding size (Ha)	1.16	1.17	
6.	Forest area cover	50.75%	41.18%	
Source: Census 2011; Directorate of Economics & Statistics- Govt. of Chhattisgarh; State of Forest Report 2011-Forest survey of India				

³³⁴ Census 2011

³³⁵ <http://cgwb.gov.in/NCCR/Korba.htm>

³³⁶ State of Forest Report 2011-Forest survey of India

³³⁷ <http://cgwb.gov.in/NCCR/Korba.htm>

4.17.2 Demography

As per Census 2011, Korba has a total population of 1,206,640 registering a 19.25% population growth rate over the decade. Korba ranks 8th amongst all the districts of Chhattisgarh in terms of population, and shares approximately 4.7% of the overall state population. About 63% of the total district population resides in rural areas with 37% of them being urban residents. The district ranks 2nd in the state in terms of percentage share of urban population in 2011³³⁸. While Katghora (67.29%) and Korba (63.94%) are amongst the highest urban population (percentage) tehsils in Chhattisgarh; Poundi-Uproda and Kartala tehsils in Korba are estimated to have zero urban population as per census 2011.

The decadal population growth in Korba during 2001-2011 was 19.25%, which is lower than the population growth of 22.51% during the period 1991-2001.

Tribal population constitutes the majority (~41%) of the total district population. The chief scheduled tribes found in Korba district are Pahadi Korwa, Gond, Raj Gond, Kavar, Bhaiyana, Binjwar, Dhanwar etc. Pahadi Korwa is the protected tribes. Satnami, Ganda, Panka etc. comes under the scheduled castes.

The population density of the district has improved over the decade with around 183 persons per sq. km. in 2011 as compared to 153 persons per sq. km. in 2001 and is comparable to state average (189). About 62.1% of the district's population is in the working age population class group. Korba along with Koriya registered one of the lowest sex ratio in Chhattisgarh despite the district marking an improvement in sex ratio over the decade. Presently there are around 969 females present per 1000 male compared to the 2001 census figure of 964. The per capita income in the district is much higher than the state average and is the highest in Chhattisgarh.

Table 278: Demographic Indicators of Korba

Demography	Korba	Chhattisgarh
Population (2011)	1,206,640	2,55,40,196
Population 15-24 (2011)	2,50,394	49,89,339
Decadal Population Growth Rate (2001-11)	19.25%	22.6%
Population density per sq. km (2011)	183	189
Percentage of Urban Population (2011)	37%	23.2%
Percentage of SC population (2011)	10.3%	12.8%
Percentage of ST population (2011)	40.9%	30.6%
Average household size	4.31	4.54
Sex Ratio (2011)	969	991
Working age population (15-59) as a percentage of total population, %	62.1%	60.1%
Per Capita Income (2009)	Rs. 82010 ³³⁹	Rs.28263
Source: Census of India 2011, Directorate of Economics and Statistics- Govt. of Chhattisgarh & Chhattisgarh, Deloitte Analysis		

³³⁸ Census 2011

³³⁹ Deloitte Analysis (At 2004-05 constant prices)

Key Observations:

- ♦ Korba is basically a tribal dominant district with Scheduled Tribes comprising approximately 41% of the entire district population. The tribal population of Korba is significantly higher than state average (30.6%).
- ♦ Despite a marked improvement in sex ratio over the decade, Korba registered one of the lowest sex ratio (969) in Chhattisgarh.

4.17.3 Economic Profile

The economy of Korba has registered a CAGR of about 7.4% (estimated at constant prices, 2004-05) between 2004-05 and 2008-09 and grown from Rs. 7,192.55 cr to Rs 9,575.66 cr. The district recorded a lower growth rate as compared to the state growth of 9.6% over the same period.

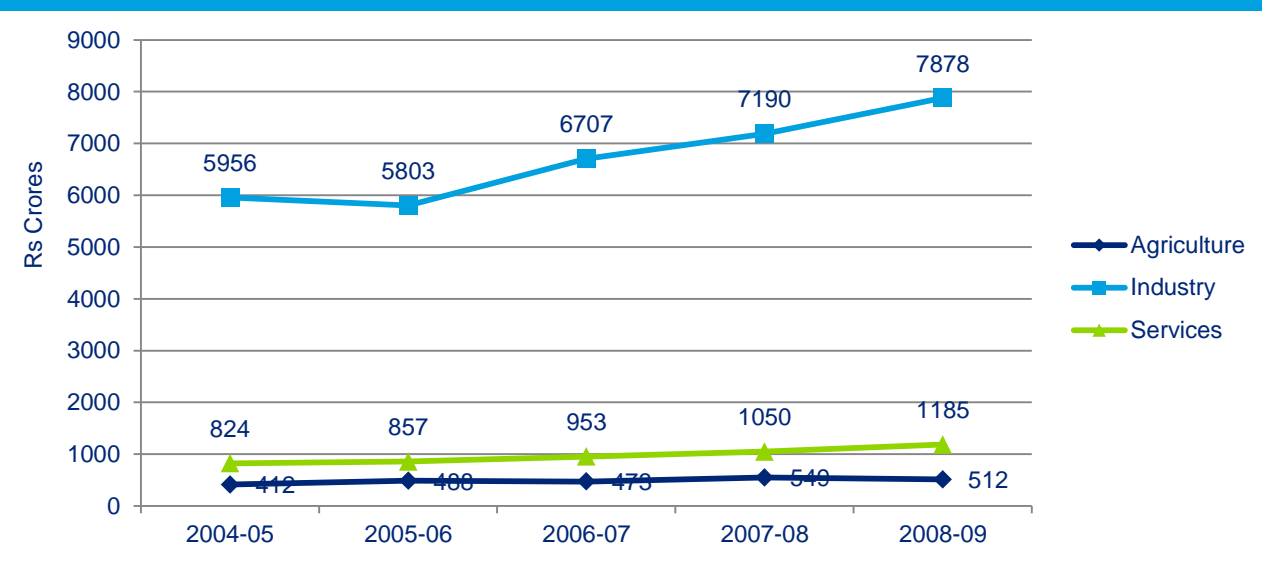
In 2008-09, Korba district contributed approximately 13.9% in the state economic activity. At Rs 9,575.66 cr., Korba district contributed the highest to the state economy and ranked 2nd in terms of economic activity amongst all the 27 districts of Chhattisgarh.

The economy of Korba district is pre-dominantly Industry sector based with the sectoral share in the GDDP pegged at 82.3% in 2008-09. This is followed by Services sector which contributes 12.4% in the district economic profile and Agriculture sector which contributes 5.4%.

In terms of sector level contribution to GDDP, the Industry sector's contribution has decreased marginally from 82.8% in 2004-05 to 82.3% in 2008-09, as indicated in the figure below. While the share of Agriculture sector in the district has increased from 5.7% to 5.4%, Services sector's contribution increased from 11.5% to 12.4% between 2004-05 and 2008-09.

The sector-wise GDDP growth and distribution from 2005-09 is provided below:

Figure 298: Sectoral Share of GDDP, 2004-05 to 2008-09, Korba



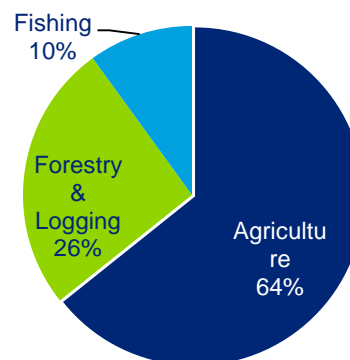
Source: Directorate of Economics and Statistics, Govt. of Chhattisgarh, 2004-05 base price

Agriculture sector

The contribution of Agriculture sector (agriculture, forestry & logging and fishing) to the GDDP was 5.4% in 2008-09. The sector grew at a CAGR of 5.6% between 2004-05 & 2008-09, however, the overall contribution of the sector declined marginally in the district. Agriculture is the chief contributor in the total output of the Agriculture sector in the district contributing 64% in the year 2008-09 followed by forestry & logging (26%) and fishing (10%).

Forestry and logging activities also play an important role in the district economy. Korba district falls under the Bilaspur forest circle and has two forest divisions' viz. Korba and Katghora subdivision. The important non-forest products of the district are Mahua, Bija, Sagon, Sahaj, Tendu Leaves etc. The chief non-nationalized species available in the district are Palash, Mahua, Chironjee, Shahad, Aonla, Baheda, Dhawai and Bel.

Figure 299: Sub-sectoral break-up of Agriculture sector (2008-09), Korba



Source: Directorate of Economics and Statistics, Govt of Chhattisgarh

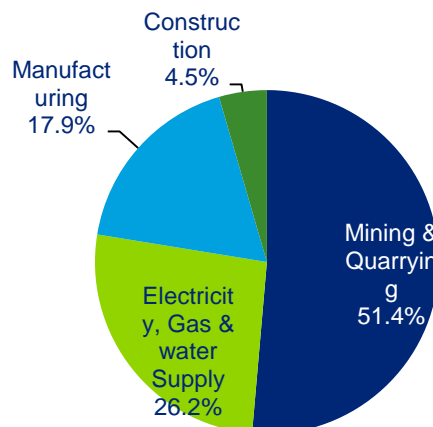
Industry sector

The Industry sector (manufacturing, mining & quarrying, construction, electricity, gas and water supply) contributed 82.3% to the GDDP in 2008-09. The sector grew at a CAGR of around 7.2% between 2004-05 & 2008-09. The overall contribution of the sector in the district economic profile decreased from 82.8% in 2004-05 to 82.3% in 2008-09.

Mining & Quarrying is the major contributor within the Industry sector accounting for a sectoral share of around 51.4% followed by electricity, gas & water supply (26.2%), manufacturing (17.9%) and construction (4.5%). The total budgeted value for ongoing building and construction activities (building and roadwork) in Korba for the year 2013-14 is allocated at Rs. 86 crores³⁴⁰.

Korba is very rich in coal with the district being endowed with vast reserves of coal mines such as Gevra Area (one of the biggest coal mines of Asia), Kusmunda Area and Dipka Area, all located in Korba Coalfield. Korba coalfield located in the basin of the Hasdeo River, covers an area of about 530 sq. km. Sub-areas of Korba Coalfield are: Korba, Surakachhar, Rajgamar, Manikpur, Dhelwadih, Kushumunda and Gevra. The major working coalmines in the district are Surakachhar, Banki, Balgi, Rajgamar, Pavan,

Figure 300: Sub-sectoral break-up of Industry sector (2008-09), Korba



Source: Directorate of Economics and Statistics- Govt. of Chhattisgarh

³⁴⁰ Chhattisgarh Public Works Department

Manikpur, Dhelwadih, Singhali, Bagdeva, Kusmunda, Laxman, Gevra and Dipka. As per the Geological Survey of India, a total of 10115.21 MT of coal reserves are available in Korba coalfield. The coal deposits are restricted into two distinct zones³⁴¹:

- ♦ Thick seam/quarriable power grade zone comprising of grade E, F & G having reserves of approx. 9068 Mt.
- ♦ Thin seam/underground superior grade zone comprising of grade B to D having reserves of approx. 1007 Mt.

Apart from the occurrence of coal, there are small deposits of bauxite, limestone, stone, Murram and sand as well in the district. The total mineral revenue receipt from mining of minerals in the district in 2012-13 was Rs. 106647.10 lakhs (Major Mineral: Rs. 106414.23 Lakhs, Minor minerals: Rs. 231.80 lakhs and others: Rs. 1.07 lakhs) which was the highest in the state³⁴².

Table 279: Mineral Revenue Receipt in Korba (2010-11)

S#	Mineral	Mineral Revenue Receipt (Rs. Lakhs)
1	Coal (Major Mineral)	106407.17
2	Stone (Minor Mineral)	77.87
3	Murram (Minor Mineral)	11.60
4	Sand (Minor Mineral)	5.29
5	Lime Stone (Minor Mineral)	4.33
6	Fire clay	2.40
7	Others (Major Mineral)	4.66
8	Others (Minor Mineral)	132.71
9	Other Minerals	1.07

Source: Brief Industrial Profile of Korba District, MSME-DI, Raipur

Korba district is inferred the status of power hub of Chhattisgarh owing to the existence of a number of power plants in the district. Availability of huge coal reserves in the vicinity along with sufficient water supply from the state's largest reservoir of Hasdeo Bango offers cheap pithead power generation opportunities in the district³⁴³. Thermal Power Plants like NTPC, KSTPS, BCPP, CSEB and Coal companies SECL, and BALCO are the major industries in the district³⁴⁴. NTPC & CSEB are the major producers of thermal power in the district. Apart from power production, the district is also engaged in Aluminium and Steel manufacturing. Aluminium is the major exportable item in the district. BALCO's integrated aluminium plant at Korba in Chhattisgarh produces 100,000 tons of aluminium every year. In order to further provide boost to the industry, the state government has proposed to establish an Aluminium Park at Korba over an area of approximately 140 ha. of land for promotion of Aluminium based industries and Aluminum downstream industries.

Furthermore, Korba along with Champa is also well known for "Kosa", a precious cloth, producing the best quality in the world. The district is industrially advanced. As per the Industrial profile of Korba district by MSME-DI, Raipur, there are a total of 671 units registered in the district.

³⁴¹ <http://secl.nic.in/mcoalfields.htm>

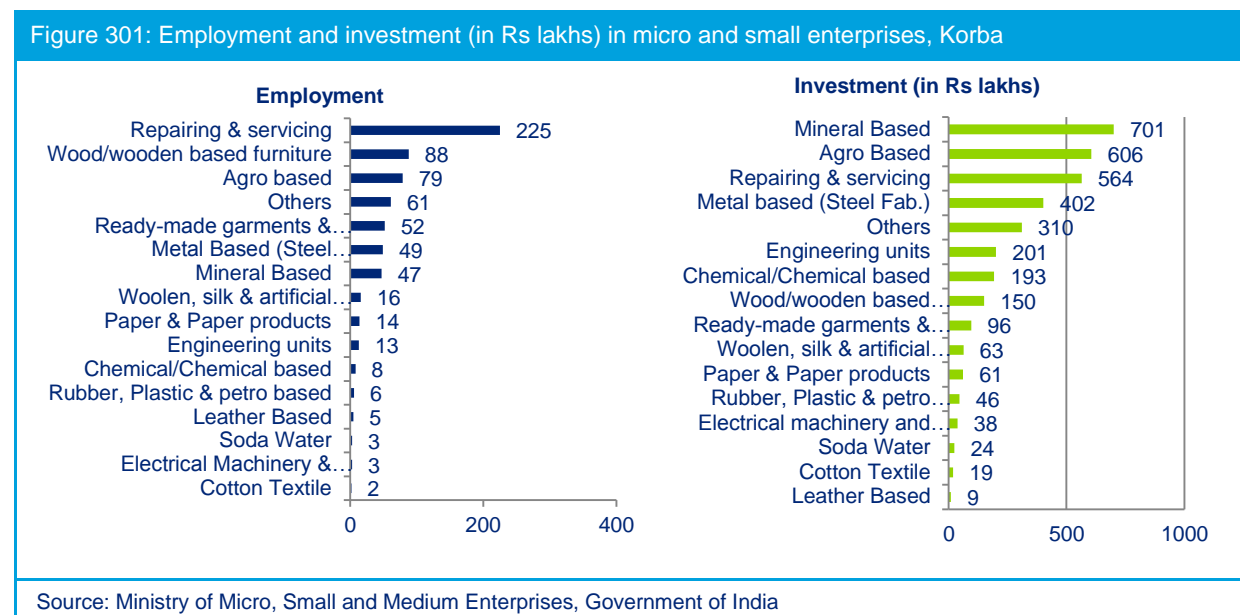
³⁴² Directorate of Geology & Mining, Chhattisgarh

³⁴³ <http://chhattisgarh.nic.in/power/power1.htm>

³⁴⁴ Brief Industrial profile of Korba district, MSME-DI, Raipur

The key micro and small industries in the district in terms of employment include repairing and servicing entities, wood/wooden based furniture and agro based industries. The key micro and small industries in terms of number of units mainly include mineral based and agro based industries and repairing and servicing units.

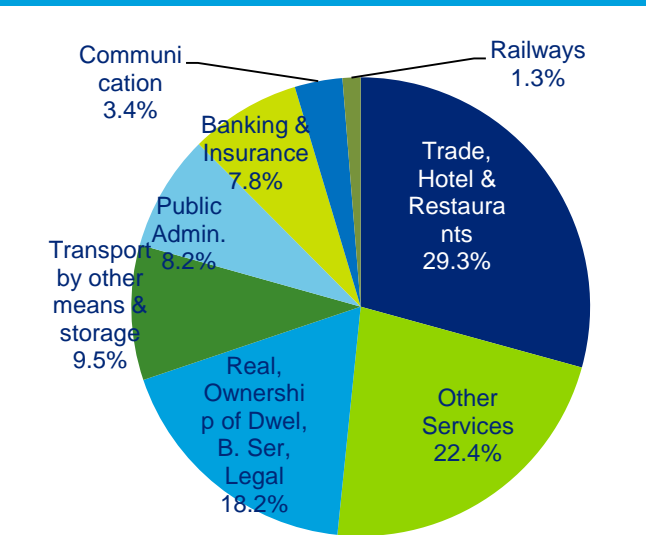
Table 280: Key Micro & Small Enterprises in Korba in terms of Employment & Number of Units



Services sector

The Services sector contributed to about 12.4% of the district economic profile in the year 2008-09. The sector grew at a CAGR of around 9.5% between the period 2004-05 & 2008-09. The key contributor to the sector is trade, hotels & restaurant contributing approximately 29.3% in the district Services sector followed by other services (22.4%) and real estate (18.2%). Korba district is surrounded by tourist destinations like Kendai waterfall (situated 85 km from Korba district headquarter on the Bilaspur-Ambikapur State highway No. 5), Madwarani Mandir (situated on the Korba-Champa Road at a distance of 22 km from district headquarter), Kankeshwar or Chakreshwar Mahadev Temple (20 km from Korba.) and Kosagaigarh (situated 25 kms off Korba-Katghora Road on the hillocks of Putka Pahad). In terms of connectivity, the district is well connected through Road and Rail to inter and intra state cities. As of 2011, the district has a total of 626.43 kms of other district & rural roads, 374.70 kms. of Rural road/ Agriculture Marketing Board Roads and 1106.49 Kms. of

Figure 302: Sub-sectoral break-up of Services sector (2008-09), Korba



Source: Directorate of Economics and Statistics- Govt. of Chhattisgarh

Kachha Road³⁴⁵. Korba is connected to Champa, the nearest railway junction, on the Howrah-Nagpur-Mumbai Railway Zone. Korba Railway Station is managed by the South East Central Railways. It is directly connected to Bilaspur, the Divisional Head Quarter, by rail and road through Katghora-Pali-Ratanpur.

Raipur is the nearest airport situated at about 200 km from Korba. Inter-district and inter-state buses are available from Korba to major places such as Bilaspur, Janjgir-Champa, Koriya, Raigarh, Surguja, Puri, Pune and Mumbai. Korba Bus Station, situated in the centre of Korba town, operates regular services to all major tourist places in the district such as Pali (58 km), Kudurmali (15 km), Kanki (20 km), Tumman, Sitamani, Madwarani, Sarvamangla and Kosagaigarh .

With a CAGR of about 19.8% and 16.7% over the period 2005-2009, Banking & Insurance and Communication were amongst the fastest growing sectors in the district respectively, though their absolute sizes were small. In 2011, Korba had a total of 54 commercial banks, 12 rural banks, 2 PLDB branches and 9 co-operative banks³⁴⁶.

Key Observations:

- ♦ The economy of Korba district is pre-dominantly Industry sector based with its share in GDDP at 82.3% in 2008-09.
- ♦ The district is known as the power hub of Chhattisgarh owing to the existence of a number of power plants in the district.
- ♦ In 2009, mining & quarrying occupied the highest share in district economy at 42.3% followed by Electricity, Gas & Water Supply (21.5%) and Manufacturing (14.8%).

³⁴⁵ Brief Industrial profile of Korba district, MSME-DI, Raipur

³⁴⁶ Brief Industrial Profile of Korba District, MSME-DI, Raipur

4.17.4 Employment Profile

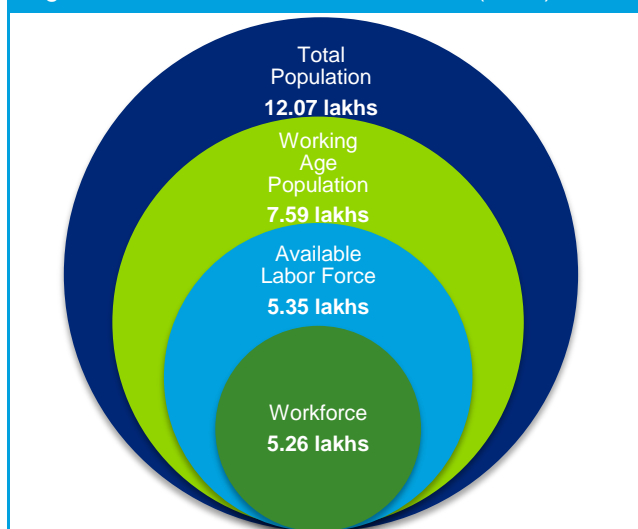
With a population of 12.07 lakhs in the year 2011, Korba accounts for nearly 4.7% of the state's population.

The adjacent figure depicts the estimated workforce in Korba in the context of total population of the district.

Out of the total population of 12.07 lakhs, the working age population (between 15-59 age group) is estimated at 7.59 lakhs or nearly 62.1%.

Based on the labor force participation rate and the worker participation rate estimates for the state, the available labor force is estimated to be 5.35 lakhs, and the workforce is estimated at 5.26 lakhs or nearly 70% of the working age population.

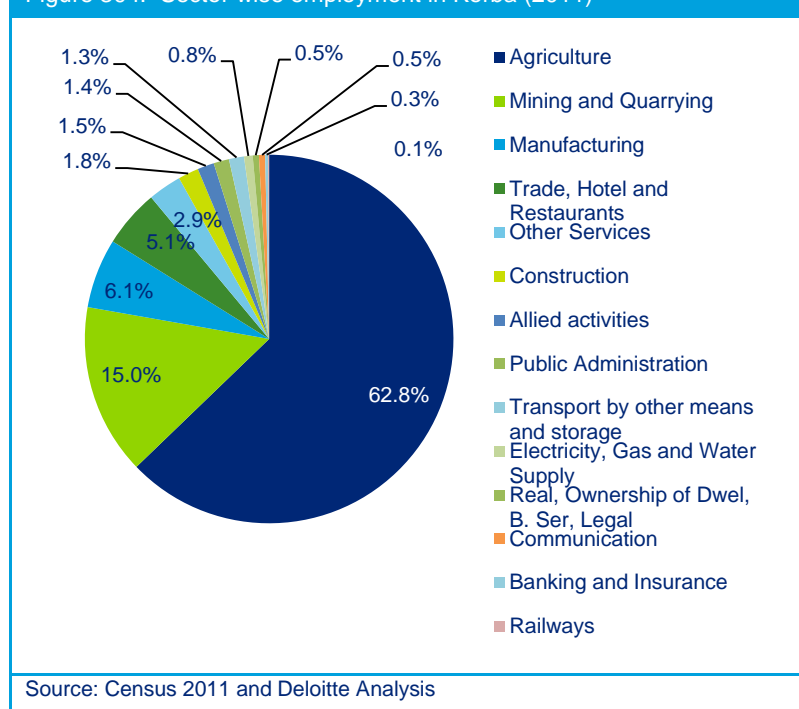
Figure 303: Total Workforce in Korba (2011)



Source: Census 2011 and Deloitte Analysis

Agriculture sector is the highest employer in the district in 2011 employing around 64.3% of the total work force; however, the sector contributes the least in the district's economic profile during the same period with around 4.1% share in the Gross District Domestic Product.

Figure 304: Sector wise employment in Korba (2011)



Source: Census 2011 and Deloitte Analysis

Industry sector is the second highest employer in the district employing around 23.6% of the workforce available in 2011. The Industry sector is also the chief contributor in the district economy in 2011, with a share of around 83.1% of the Gross District Domestic Product.

The Services sector's share in the GDDP was around 12.9% in the same year with the sector employing around 12.1% of the district's workforce.

The adjoining figure summarizes the sector-wise employment share in Korba for the year 2011.

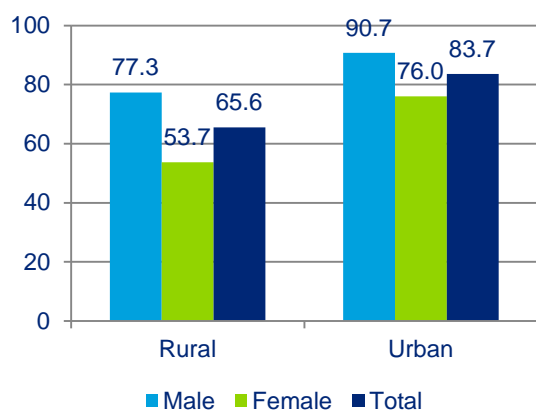
Agriculture accounted for more than half of the total employment in the district (62.8%) followed by mining

and quarrying (15.0%), manufacturing (6.1%), trade, hotels and restaurants (5.1%), and other Services sector (2.9%). The top five sectors in the district in terms of employment account for around 92% of the total employment of the available workforce in Korba in 2011.

4.17.5 Education Infrastructure

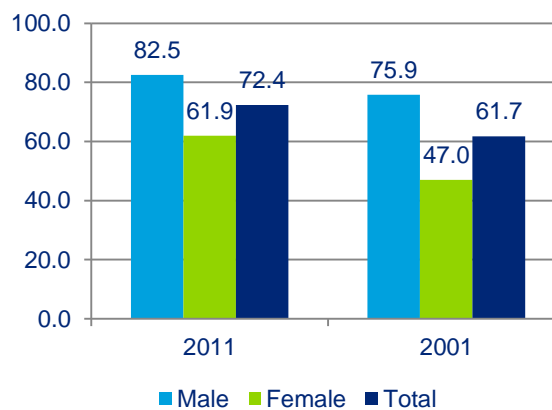
The literacy rate in Korba has improved from 61.71% in 2001 to 72.37% in 2011³⁴⁷. The literacy rate of the district is slightly higher than the state's literacy rate of 70.3% in 2011 and is comparable to the all-India literacy rate of 73%. In 2011, male and female literacy rates stood at 82.48% and 61.93% respectively, both figures showing an improvement compared to the 2001 figures of 75.86% and 46.99% respectively. However, there still exists a significant disparity between the male-female and urban-rural literacy rates.

Figure 305: Literacy rate 2011 (by residence), Korba



Source: Census of India 2011

Figure 306: Literacy rate (by Gender), Korba



Source: Census of India, 2001 and 2011

School Education

Korba has 1739 primary schools, 653 upper primary schools, 123 secondary schools and 160 higher secondary schools. Net enrolment ratio (NER) at the upper primary level (74.1%) is higher than the state NER of 67.8%.

Table 281: Status of school education infrastructure in Korba, 2013

#	Educational Statistics	Units in Korba	Units in Chhattisgarh	% Share of District in State
1	Primary School	1039	35588	2.9%
2	Upper Primary School	502	16442	3.1%
3	Secondary School	123	2632	4.7%
4	Higher Secondary School	145	3548	4.1%
5	NER (Primary) (2010-11)	100%	98.0% ³⁴⁸	-
6	NER (Upper Primary) (2010-11)	74.1%	67.8%	-

Source: DISE 2012-13

³⁴⁷ Census 2011

³⁴⁸ Data is for 2008-09

Vocational Education

For vocational training, Korba has a total of 7 ITI's in the district, of which 4 are Government Industrial Training Institutes and 3 are Private Industrial Training Institutes. Korba has an exclusive woman ITI. The total capacity of all the ITI's in the district is 1300. While the capacity of Govt. ITI's is 1044, the capacity of the Private ITI's is 256. Electrician and Fitter courses have the maximum units affiliated among ITIs.

The number of courses available in ITIs and their capacity are listed in the table below:

Table 282: ITIs in Korba and their capacity

Name of ITI	Number of courses offered	Total Units affiliated	Total Capacity
Government Industrial Training Institute, Korba	19	48	756
Government Industrial Training Institute for Women, Korba	4	5	88
Government Industrial Training Institute, Pali	3	6	104
Government Industrial Training Institute, Kartala	3	6	96
Agrasen Industrial Training Centre	1	2	32
New Maharana ITC	1	8	128
Param Mitter Private ITI	3	6	96
Total	21*	81	1300

Source: Department of Higher and Technical Education, Chhattisgarh; Deloitte Analysis
 *Total number of different courses offered by ITI's in Korba

The major courses offered in the ITIs and their capacity in Korba is given in the figure below:

Figure 308: Major courses offered in Govt. ITIs and their capacity in Korba

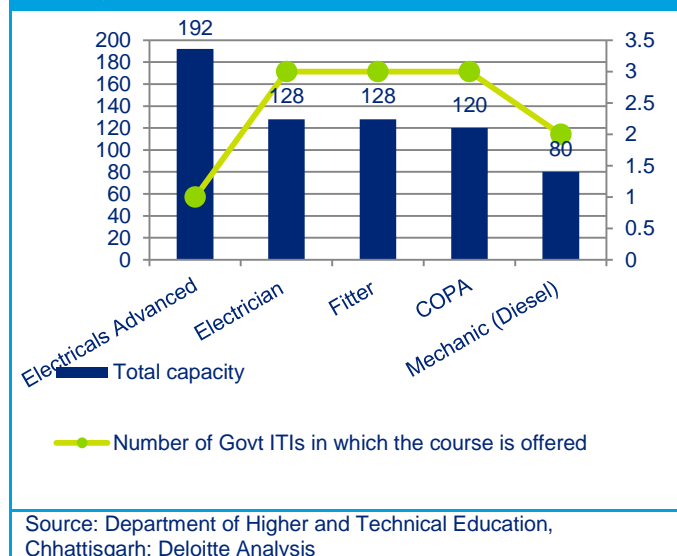
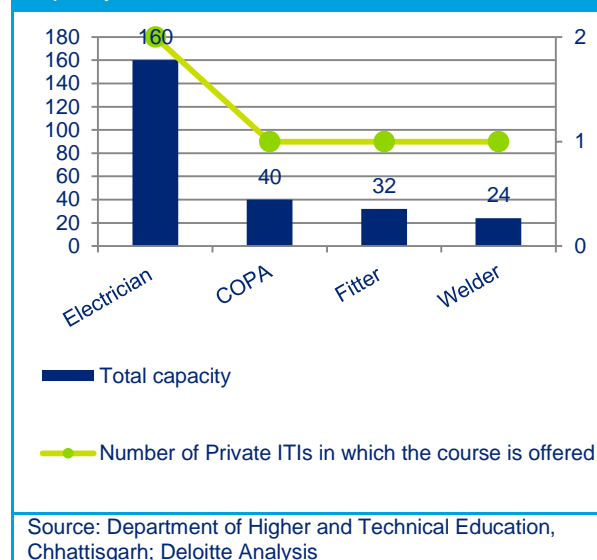


Figure 307: Courses offered in Private ITIs and their capacity in Korba



According to Chhattisgarh State Skill Development Mission Website, as of 12th March, 2014, Korba has 61 Vocational Training Providers (VTPs) under which there are 4960 registered beneficiaries. The

following table highlights the courses offered in vocational education, which currently meet requirements of about 14 sectors.

Table 283: Courses offered in vocational education, Korba

Sector	ITI trades and Units affiliated	Courses Offered by VTPs
Auto and auto components Electronics and IT hardware Chemicals and pharmaceuticals	Draughtsman(Mechanical)(2), Electricals (12), Electrician(8), Fitter(8), Mechanic and machinist (9), Turner(2), Welder(3)	Electrical, Electronics, Fabrication, Automotive Repairs, Production and manufacturing
IT and ITES Tourism, hospitality and travel Organized retail Media and entertainment Banking, financial services and insurance	Computer Operator and Programming Assistant(6), Stenography(3), Driver cum mechanic (2)	ICT, Soft skill, Banking & Accounting, Fashion design, Printing,
Textiles and clothing Leather and leather goods	Cutting and Tailoring(1), Knitting with Hand Machine (1)	Garment making, Sericulture, Textile silk
Building, construction and real estate Construction material and building hardware Furniture and furnishing	Carpenter(1), Moulder(1),	Construction
Unorganized sector (particular reference to agriculture, security, plumbing, domestic worker, foundry, etc.)	Mechanic (radio, television)(2), Mining machine maintenance(2), Wireman(2)	Beauty culture and hair dressing, Gem & Jewellery, Fisheries & Allied, Fire, Bamboo, Handmade Paper & Paper Products, Agriculture

Source: CSSDA Website

The following table highlights the NSDC partners present in Korba as of January 2014 and the courses offered by them.

Table 284: NSDC partners present in Korba

Name of Partner	Sectors in which course is offered	Courses offered
AISECT	IT/Software	<ul style="list-style-type: none"> ◆ Diploma in Computer Applications (DCA) ◆ Post Graduate Diploma in Computer Applications (PGDCA) ◆ Diploma in Computer Programming and Applications (DCPA) ◆ Certificate in Word Processing / Typewriting (Hindi/English) (CWP) ◆ Certificate in Office Automation and Internet (COA)
	ITES-BPO	<ul style="list-style-type: none"> ◆ Diploma in Computer Applications (DCA) ◆ Post Graduate Diploma in Computer Applications (PGDCA) ◆ Diploma in Computer Programming and Applications (DCPA)
	Electronics & IT Hardware	<ul style="list-style-type: none"> ◆ Diploma in Electrical Technician (DET)
IL&FS Skills Development Corporation Ltd.	Automobile / auto components	<ul style="list-style-type: none"> ◆ Customer Relation Executive
	Banking/Insurance and finance	<ul style="list-style-type: none"> ◆ Certificate Program for Finishing Skills for Graduate ◆ Certificate Programme for Sewing Machine Operator
	Electrical Hardware	<ul style="list-style-type: none"> ◆ IL&FS-Korba-Certificate Programme for Electrician
	Engineering	<ul style="list-style-type: none"> ◆ IL&FS-Korba-Certificate programme for Basic

Name of Partner	Sectors in which course is offered	Courses offered
		Welding
		♦ Certificate Programme for Fitter
	Tourism, hospitality and travel	♦ IL&FS-Korba-Certificate Programme for Food & Beverages
	Service Sector	♦ Certificate Program for Enrollment Operator
	Others	♦ IL&FS-Korba-Certificate programme for Basic Welding
Source: NSDC		

Higher Education

The status of higher education in Korba is not very promising. Out of a total 590 colleges in the state, only 20 colleges are in the district of Korba indicating the district's share in the higher education space of the state at 3.4%. This is lower in comparison to the share of population of Korba to the state (4.7%). Out of the 20 colleges present in the district, 14 offer only general degree courses.

Table 285: Number and Capacity of Higher Education infrastructure in Korba

#	Colleges	Number	Estimated Capacity*
1	Arts, Science and Commerce	14	-
2	Nursing	3	120
3	Technical	1	240
4	Law	1	-
5	Management	1	-
6	TOTAL	20	-
*Source: University/College websites			

Key Observations:

- ♦ The share of Korba in the higher education space of the state is 3.4% which is lower in comparison to its share of population in the state (4.7%).
- ♦ Although there are 20 colleges present in Korba, 70% of them offer only general degree courses.

4.17.6 Youth Aspirations

Youth population constitutes the most important demographic section for a district from a skills development perspective. In the process of capturing the aspirations of the youth population in Korba, focused group discussions were held with youth from educational institutions as well as residing in rural areas to understand their concerns, areas of interest and future dreams and goals. The FGD in Korba was conducted at the Gram Panchayat Bhavan, Korkoma while youth surveys were conducted at the Korba Shikshan Samiti, KCC Campus; Government ITI for Women, Korba and Government ITI, Korba. 49% of the respondents were in the age group 15-20 while 48% of them were between 21-25 years. Remaining 3% of the respondents were 26 years and above. In terms of gender representation, around 60% of the participants were males while the remaining 40% were females. The educational qualification of about 55% of the participants was high-school level or below. Around 32% of them were graduates and above with the remaining 13% participants being certificate holder.

The key observations about aspirations of the youth of the district are highlighted below.

Table 286: Youth Aspiration – Key Responses - Korba

Parameters	Responses
Job Preference	Majority of the youth prefer Government jobs over private jobs due to the job security offered in a Government job.
Factors influencing selection of training institution	Institutions are selected on the basis of employment opportunities available post training, and the quality of the training institute.
Preferred Course	<ul style="list-style-type: none"> • Training for job readiness appears to be most popular among the youth in the district. Apart from the regular courses offered by educational/ training institutions; spoken English, basic communication skills, personality development, soft skills & basic IT skills are considered to be very important by the youth which they feel is one of the most important element to get a job. • COPA (Computer Operator and Programming Assistant) is highlighted as one of the most preferred courses among both boys and girls.
Migrating for job	Most of the youth prefer jobs within the district . Though men are willing to take up jobs outside the district on account of better employment opportunities, women preferred to work within the district.
Salary Expectations	Average monthly salary expectation of youth ranges between Rs 8000 –12,000/-
Areas of concern/ aspirations- Infrastructure	<p>Following views were expressed regarding infrastructure in educational institutions:</p> <ul style="list-style-type: none"> • Schools and colleges should have separate and clean washrooms for boys & girls. • Security guards should be employed in schools. • Upgrade labs & workshops in the colleges. • Increase the number of equipment in accordance with the strength of the students enrolled.
Areas of concern/ aspirations-Course Curriculum	<ul style="list-style-type: none"> • Youths expressed that the current curriculum should be modified as per industrial requirements with an objective of making it more job oriented. • They also requested that the courses should be completed within the specified time frame. • Local industries should train people on apprenticeship/ intern model to improve job prospects.
Other concern	<ul style="list-style-type: none"> • It was also learnt that youth are not aware about the newly introduced Govt. initiatives on skill development such as VTPs (MES/ SDI scheme) and NSDC training partners. • Majority of the youth expressed their concern over the examination process and requested that it should be conducted immediately after training.
Suggestions given by	<ul style="list-style-type: none"> • The youth expect Govt. to take up initiatives to improve institutional infrastructure.

Parameters	Responses
youth	<ul style="list-style-type: none"> • Youth expressed that Govt. should take measures to provide proper education facilities to the poor people. • There should be more courses, practical classes, resourceful, efficient and regular teachers available in the institutes. • English, Hindi or both must be used as the medium of teaching.

A sample survey was conducted with youth at gram panchayat level & those coming out from various educational institutions (Government & private) to understand & capture their aspirations. The findings are presented below:

Job preference by youth

The majority of the youth surveyed (70%) **prefer to get a job within their home district** as is evident from the adjacent figure. Approximately 13% of them preferred for job within their state of residence indicating thus that around 83% of the **youth surveyed prefer to get employment opportunities within Chhattisgarh**. The survey reveals that not many youth are interested to migrate out of state in search of jobs.

It implies the requirement and necessity of the creation of suitable positions and absorption capacity by the state government for youth in the employment market in Korba.

Parameter for Institute Selection

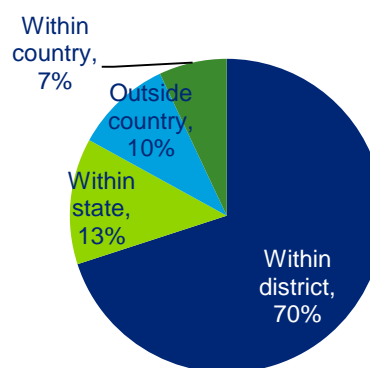
A majority of the students surveyed (84%) in the district choose institute for higher education on the basis of better employment/job prospects post education. Remaining 16% of the students surveyed make their choice on the basis of the quality of education offered by the institute and its reputation while selecting an institute for higher education.

Youth Perception Mapping

Youth perception mapping was undertaken to understand their level of satisfaction with either their current institute or their experience and feedback on the available educational infrastructure. The results are summarized below:

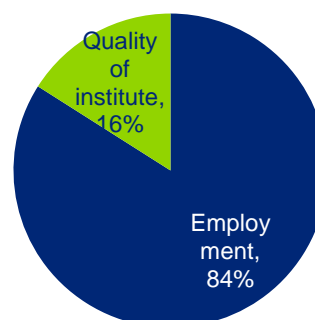
Low satisfaction with placement / jobs available post training: Around 80% of the students surveyed expressed their dissatisfaction with the placement opportunity available in the institute or jobs available post training. While around **13% of them felt the job opportunities to be satisfactory post training in the district**. The students shared their expectation of being provided with a placement opportunity by the institute or facilitate a tie-up with nearby companies to give them an experience of apprenticeship training.

Figure 309: Job Preference by Youth



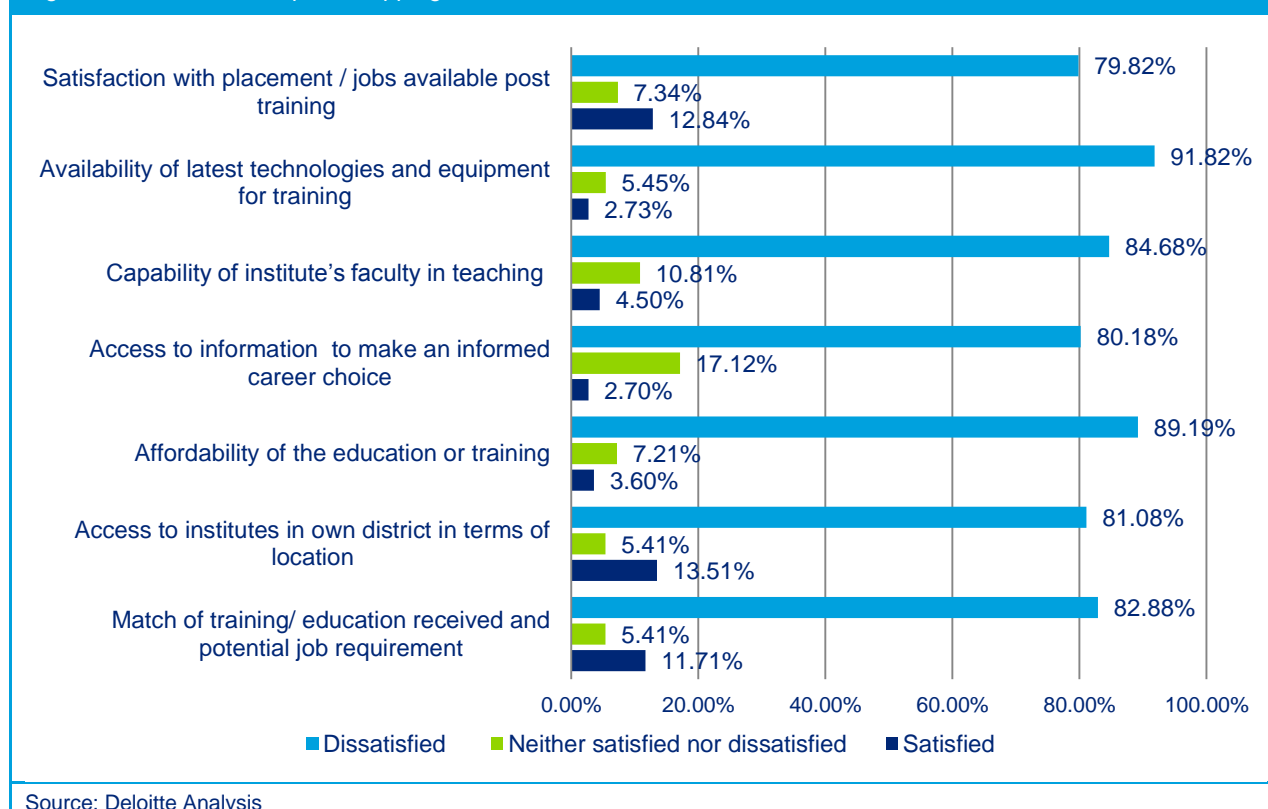
Source: Deloitte Analysis

Figure 310: Parameter for Choice of Institute



Source: Deloitte Analysis

Figure 311: Youth Perception Mapping, Korba



Source: Deloitte Analysis

Non-availability of latest technologies and equipment for training: 92% of the students surveyed expressed their dissatisfaction with the availability of latest technology & equipment for training in the institute while only 18% of them shared their satisfaction with the same. They felt the lack of equipment as a major constraint for their knowledge enhancement and appropriate level of skill development. The students highlighted the need for adequate number of computers in the institute for training. They demanded that the institutes should be adequately equipped and upgraded with latest technology.

Dissatisfaction with capability of institute's faculty in teaching: Around 85% of the youth surveyed (especially the students from Government ITI's) feel the **quality of teaching by faculty** in their institute is not satisfactory and needs significant improvement. They demanded the number of faculty to be increased as per the demand of the course and the **lack of quality faculty in the institute to be compensated by inviting visiting faculty from outside**. Moreover, the youth suggested periodic training for their current trainers.

Need for better access to information to make an informed career choice: Around 80% of the students surveyed were dissatisfied with their access to information to make an informed career choice. The concern was raised more by the rural youth who reported the **absence of appropriate facility/linkages and thought leaders in their locality to get suggestions and guidance on career**. They highlighted the need and importance of having career counseling to the potential students either at the school level or at the respective vocational institutes.

Affordability of the education/training a concern for the students: Majority of the students surveyed (around 89%) felt that the fee charged by the education/ training institute is a concern for them. Moreover,

they emphasized that the quality of training programme offered should be commensurate with the fees charged.

Access to institutes is an issue in rural areas: Around 81% students surveyed felt their educational institutes to be inaccessible in terms of location and majority of them were rural youth. 14% of the students surveyed expressed their **satisfaction with the accessibility** of the educational institutes in terms of location. They found the institute to be located in an accessible area and safe in terms of the duration of classes. The rural youth voiced the government to support them by arranging suitable transport facility.

Dissatisfaction with the alignment of training/education received with job requirements: Approximately 83% of the students surveyed emphasized that there is a need to align the training/education provided by the educational institutes in the district in terms of job requirements of the business. 12% of the youth felt that the training/ education received by them matches the potential job requirements of the employers.

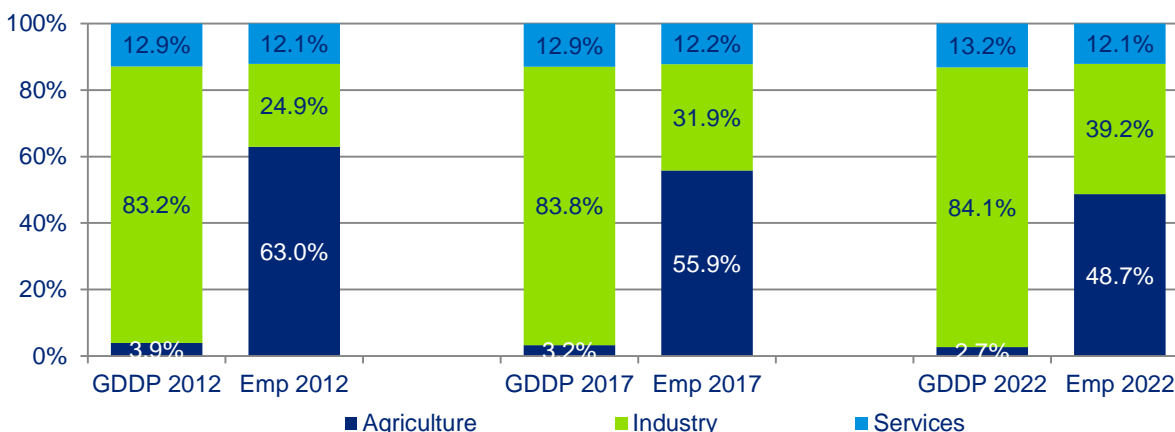
Key Observations:

- ♦ Govt. Jobs were preferred over private in the district with an expected salary ranges from Rs. 8000- Rs. 12000/-.
- ♦ Majority of the youth surveyed (70%) prefer to work within the district. The proportion is higher for females who do not prefer to migrate outside district in search of employment opportunities.
- ♦ Training for job readiness appears to be most popular among the youth. The need for developing more courses in communication, language, basic IT and soft skills was emphasized by the youth.
- ♦ Girls preferred courses in sewing and tailoring and beauty parlor while boys preferred computer related courses.
- ♦ Youths expressed that the current curriculum should be modified as per industrial requirements with an objective of making it more job oriented. They also highlighted the need for increasing the number of equipment in accordance with the strength of the students enrolled.
- ♦ Youth are not aware about the CSSDA initiatives on skill development being undertaken in Korba indicating thus a need for awareness campaigns in the district.

4.17.7 Skill Gap Assessment

The working age population (15-59) constituting 62.1% of total district population in 2011, is expected to increase to 65.6% by 2022.

Figure 312: Comparison of Sectoral share in GDDP & Employment, Korba



Source: Deloitte Analysis

Based on our analysis and primary interactions, the Agriculture sector is expected to play a significant role and will continue to be an important sector in terms of providing employment in the district. It currently accounts for the largest share of workforce and is anticipated to be the major employer in the district. If the trends in employment continue, in 2021-22, the share of employment across the Agriculture sector is expected to decline to 48.7% as compared to 63.0% in 2012.

The Industry and Services sector employment share are estimated to increase to 39.2% and 12.1% respectively, as indicated in the table above. This trend appears to be in line with the national trend as well where people are moving out of the Agriculture sector and moving into the Industry and Services sectors respectively.

Incremental Human Resource Demand

As per the methodology, the total incremental demand for manpower in Korba from 2012 to 2022 is expected to be around 2.34 lakh. Following table provides the break-up of the incremental demand for manpower in Korba as per the skill levels required.

Table 287: Estimated Incremental Human Resource Demand ('00) by Skill Level in Korba

	2012-17	2017-22	Total
Skilled	128	167	295
Semi-Skilled	312	410	722
Minimally Skilled	584	738	1,322
Total	1,024	1,315	2,339

Source: Deloitte Analysis

Some of the key trends observed on the demand side include

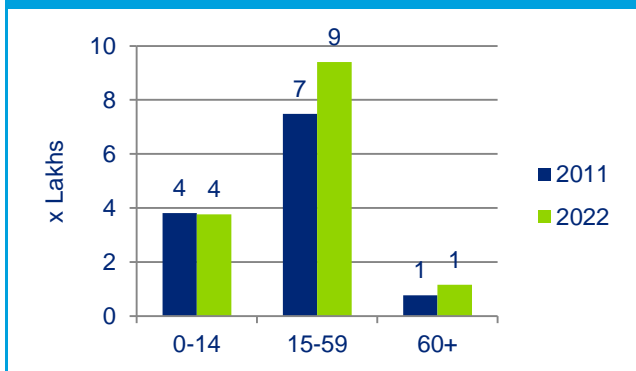
- ♦ *Mining & Quarrying will be the largest incremental demand generating sector (56.5%) with demand largely in the minimally skilled level. Korba is very rich in coal with the district being endowed with vast reserves of coal mines such as Gevra Area (one of the biggest coal mines of Asia), Kusmunda Area and Dipka Area, all located in Korba Coalfield. As per the Geological Survey of India, a total of 10115.21 MT of coal reserves are available in Korba coalfield. Apart from the occurrence of coal, there are small deposits of bauxite, limestone, stone, murram and sand as well in the district. The wide occurrence of minerals in the district would facilitate the mining activities in Korba.*
- ♦ *Agriculture is anticipated to be the second largest incremental demand generating sector (15.7%) in the district.*
- ♦ *Within the industry sector, the other key growth sectors in Korba in terms of incremental demand for manpower include Manufacturing –primarily mineral/metal based (7.0%) and Building and Construction (4.4%).*
- ♦ *In the services sector, trade - retail + wholesale (2.6%) and BFSI (1.9%) are expected to be one of the major employers in Korba.*
- ♦ *Analysis of formal and informal employment indicates that the incremental demand for manpower in formal sector would come mainly from Mining & Quarrying, Manufacturing (mineral/metal based), Building and Construction, BFSI and Public Administration.*
- ♦ *Majority of demand for incremental manpower in the informal sector is projected to come from Agriculture, Mining & Quarrying, Manufacturing (mineral/metal based), Building & Construction and Trade (Retail + Wholesale).*

Table 288: Incremental Human Resource Demand ('00) by Skill Level in Korba- Key Sectors

#	Key Sectors	2012-17				2017-22			
		Skilled	Semi-skilled	Minimally Skilled	Total	Skilled	Semi-skilled	Minimally Skilled	Total
1	Mining & Quarrying	54	162	325	541	78	234	469	781
2	Agriculture	6	19	163	188	5	18	156	179
3	Manufacturing (Mineral/metal based)	15	45	15	74	18	53	18	88
4	Building & Construction	7	18	20	45	9	23	26	57
5	Trade (Retail + Wholesale)	4	15	10	30	5	15	11	30
6	BFSI	8	7	1	16	14	13	1	29
7	Transportation & logistics/ warehousing/ packaging	2	6	12	20	2	7	14	23
8	Others	32	40	38	110	36	47	44	126
9	Total	128	312	584	1,024	167	410	738	1,315
Overall Incremental Demand					2,339				
Source: Deloitte Analysis									

Incremental Human Resource Supply

Figure 313: Age wise distribution of population, Korba 2011 and 2022 (projected)



Source: Census 2011 and Deloitte Analysis

The population of Korba is expected to increase from 12.07 lakhs in 2011 to 14.32 lakhs in 2022.

The adjacent figure provides the current and projected population across various age groups. As per the analysis, the number of persons in the working age group is expected to increase by around 26% during the period 2011-22. This represents a potential demographic dividend for the district with a large increase in the employable population. On the other hand, it presents a huge challenge for the state to make available higher education and skill development facilities as well as ensure productive employment opportunities

for its working age population.

As per the methodology, the estimated incremental manpower supply in Korba over a period of 10 years (2012-22) will be around 1.66 lakh. Incremental manpower supply can be further classified into skilled, semi-skilled and minimally- skilled as per the education qualifications and estimated output of educational and vocational training institutes in the district.

Table 289: Estimated Incremental Human Resource Supply ('00) by Skill Level in Korba

	2012-17	2017-22	Total (2012-22)
Skilled	120	130	250
Semi-Skilled	245	264	509
Minimally Skilled	459	437	896
Total	824	832	1,656

Source: Deloitte Analysis

Some of the key trends observed on the supply side include

- Proportion of incremental supply of minimally skilled manpower is 54.1%, compared to 30.8% of semi-skilled and 15.1% of skilled manpower (2012-22)
- Korba has only 20 out of 590 colleges in the state indicating the district's share in the higher education space of the state at 3.4%. Moreover, 70% of the colleges present in the district offer only general degree courses. Owing to the lesser presence of the colleges in the district, the proportion of skilled workers in the total workforce in the district is anticipated to be the least (15%) and likely to increase slightly over the decade.
- The supply of semi-skilled workforce in the district is estimated to increase over the two time periods which are in-line with the current focus of government in improving the skill development space of the state.
- The trend of migration is expected to be inward from other states and districts across all skill levels and would account to nearly 2.3% of the incremental supply.

Incremental Demand Supply Gap

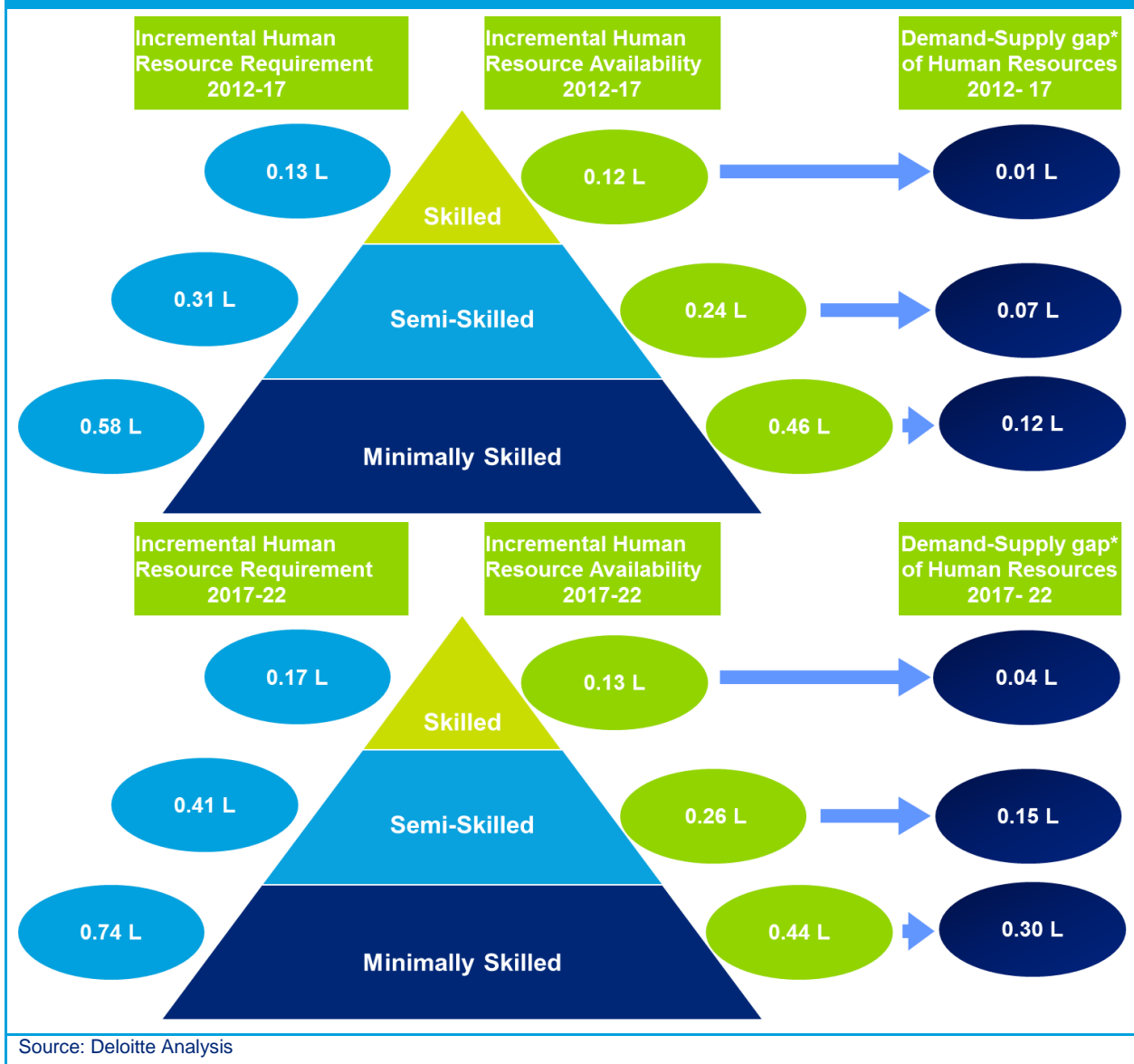
During the period 2012-22, the incremental human resource demand in Korba across all skill levels is estimated to be 2.34 lakh while the supply is projected to be 1.66 lakh indicating thus a deficit of around 0.68 lakh people (refer table below). There is estimated to be an excess demand across all the skill segments (skilled, semi-skilled and minimally skilled).

Table 290: Projected Demand Supply gap ('00) by skill levels in Korba

#	District Skill Gap	2012-17				2017-22			
		Skilled	Semi-skilled	Min. Skilled	Total	Skilled	Semi-skilled	Min. Skilled	Total
1	Incremental HR Requirement (Demand)	128	312	584	1,024	167	410	738	1,315
2	Incremental HR Availability(Supply)	120	245	459	824	130	264	437	832
3	Demand-Supply Gap	8	67	125	200	36	146	301	483
	Overall Demand-Supply Gap				683				
Source: Deloitte Analysis									

During the period 2012-22, the incremental manpower demand supply gap of the district (across all sectors mentioned above) is expected to be a deficit of about 0.68 lakh people with the excess demand across all skill segments as shown in the following figure.

Figure 314: Incremental Demand-Supply Gap (in Lakhs) , Korba



Some of the key trends observed on the demand-supply gap include

- The composition of the human resource demand supply gap over the two different time periods i.e. 2012-17 and 2017-22 is expected to remain same.
- In line with the rural-urban population distribution in the district (63% of the population residing in rural areas) and dominance of agriculture in employment in the district, the major contributor to the incremental supply is the minimally skilled segment. Moreover, the segment is also likely to experience the maximum shortage of workers in the district. This may result in some intra state

migration of the surplus supply of minimally skilled workers from neighboring districts like Bilaspur, Jashpur, and Janjgir-Champa etc. to Korba in search of employment.

- ♦ The excess demand of skilled resources in the district is expected to continue over the decade. Even in the case of existing supply of workers in the skilled segment, it is pertinent to note that it does not imply industry demand for skills is being sufficiently met. The industry interactions have revealed employability linked skills as a key area of concern. Approximately 76% of the total skilled workforce is estimated to be from general degree courses having undergone no job/skill specific training. The changing landscape of the sector including use of new technology and practices imply a need for reskilling and up skilling of the existing workers.

Qualitative Skill Gaps

The qualitative skill gaps that were highlighted during our primary interactions with industry at Korba are provided in the table below.

Table 291: Qualitative Skill Gaps

Sector	Level	Skill Gap
Mining & Quarrying	Managers/Engineer	<ul style="list-style-type: none"> ♦ Project Management and People Management Skills ♦ Knowledge of appropriate safety practices ♦ Knowledge of appropriate safety aspects
	Supervisors	<ul style="list-style-type: none"> ♦ Understanding of electrical and mechanical maintenance concepts ♦ Interpersonal and communication skills ♦ Understanding of product specifications ♦ Knowledge and implementation of safety practices ♦ Improve efficiency by avoiding wastage of resources
	Workmen/operators	<ul style="list-style-type: none"> ♦ Knowledge of basic machine operation ♦ Understanding of discipline, industrial rules, work related procedures etc. ♦ Ability to carry out basic troubleshoot in case of machine breakdown ♦ Practicing safety measures in the workplace ♦ Multi skilling
Agriculture	Tractor operator and mechanics/ Electricians/ Mechanics for repair & maintenance of agricultural tools & implements	<ul style="list-style-type: none"> ♦ Sufficient training to address tool & equipment failures like motor pump failure, gear damage, tyre puncture etc.
Manufacturing (mineral/metal based)	Manager/Engineer	<ul style="list-style-type: none"> ♦ Project Management and People Management Skills ♦ Knowledge of appropriate safety practices ♦ Communication skills (Writing Skills)
	Supervisors	<ul style="list-style-type: none"> ♦ Interpersonal and communication skills ♦ Understanding of quality concepts ♦ Understanding of product specifications ♦ Knowledge and implementation of safety practices ♦ Improve efficiency by avoiding wastage of resources
	Workmen/operators	<ul style="list-style-type: none"> ♦ Understanding of discipline, industrial rules, work related procedures etc. ♦ Ability to carry out basic troubleshoot in case of machine breakdown ♦ Understanding of wastage or resources, to improve efficiency in working

		<ul style="list-style-type: none"> ♦ Practicing safety measures in the workplace ♦ Multi skilling
Building & Construction	Project Managers/Engineers	<ul style="list-style-type: none"> ♦ Knowledge of design and tools such as AutoCAD etc. ♦ Knowledge of green/eco-building design ♦ Project Management and People Management Skills ♦ Knowledge of appropriate safety practices ♦ Client Management skills (e.g. government officials for approvals, flat owners etc.)
	Supervisors: plumbing, electrical, carpentry, masonry, drilling	<ul style="list-style-type: none"> ♦ Skills in civil- operations of ready mix m/c, earth movers, etc. ♦ Basic repair and maintenance ♦ Exposure to right methodology in construction specific skills like lining, leveling etc. ♦ Site safety concepts and procedures ♦ Lack of finishing skills
	Workmen: plumbing, electrical works, carpentry, masonry, drilling	<ul style="list-style-type: none"> ♦ Basic operating skills related to relevant category ♦ Improved/ better quality in finishing ♦ Site safety concepts and procedures ♦ Ability to understand & follow instructions/ manuals
Trade (Retail and Wholesale)	Store/Department Manager	<ul style="list-style-type: none"> ♦ Understanding of cross functional activities in the store esp. logistics, marketing and merchandising ♦ People management skills ♦ Vendor Management ♦ Lack of IT skills
	Billing Associate/ Accountants/ Computer operators	<ul style="list-style-type: none"> ♦ Knowledge of transaction processing software and cash management ♦ Knowledge of tally/accounting practice
	Sales/Customer Service personnel	<ul style="list-style-type: none"> ♦ Product specific knowledge ♦ Customer service and Inter personal skills ♦ Communication skills
BFSI	Middle level managers	<ul style="list-style-type: none"> ♦ Limited knowledge Banking operations ♦ Poor Client and team management skills ♦ Lack of Interpersonal and communication skills
	Business Facilitator / Correspondent/ Direct Selling Agents/Financial Advisors	<ul style="list-style-type: none"> ♦ Correct knowledge of products; ♦ Customer need assessment and Advisory Skills ♦ Communication and Selling Skills ♦ Customer service and Inter personal skills
	Officer and Trainee	<ul style="list-style-type: none"> ♦ Lack of in-depth Product Knowledge ♦ Poor Written and verbal communication Skills ♦ Inadequate Inter-personal skills
	Customer Service Executives	<ul style="list-style-type: none"> ♦ Limited Computer skills ♦ Limited Accounting knowledge ♦ Inadequate Communication Skills

4.17.8 Recommendations

Future Growth Opportunities in Korba

In the context of the current economic profile and proposed investments of the district, the demand for human resources at various skill levels has been analyzed. The observations have been augmented by primary interactions with industry & industry association representatives in the district and government officials at the state and district level. Based on our analysis and considering factors like high growth and employment potential, priority sector for the state government, investment trends, etc., the following sectors/industries have been identified with future growth opportunities for employment and subsequently, skill development in Korba.

Table 292: Key Growth Sectors - Korba

#	Priority Sectors	Growth opportunities in skills development and employment
1	Mining & Quarrying	<ul style="list-style-type: none"> Mining & Quarrying activities currently contributes around 57% in the district economic profile and is estimated to grow at 7.0% over the decade (2012-22). Korba is very rich in coal deposits with the district being endowed with vast reserves of coal mines such as Gevra Area (one of the biggest coal mines of Asia), Kusmunda Area and Dipka Area, all located in Korba Coalfield which covers an area of about 530 sq. km. As per the Geological Survey of India, a total of 10115.21 MT of coal reserves are available in Korba coalfield. Apart from the occurrence of coal, there are small deposits of bauxite, limestone, stone, murram and sand as well in the district. The total mineral revenue receipt from mining of minerals in the district in 2012-13 was Rs. 106647.10 lakhs (Major Mineral: Rs. 106414.23 Lakhs, Minor minerals: Rs. 231.80 lakhs and others: Rs. 1.07 lakhs) which was the highest in the state³⁴⁹. Mining & Quarrying sector is projected to be the largest employer in the district with approximately 56.5% of the total incremental demand for employment estimated to come from this sector over the period 2012-22. It is expected to provide incremental employment to around 132,243 incremental supplies of workers over the decade.
2	Agriculture	<ul style="list-style-type: none"> Agriculture is currently providing employment to around 62% of the workers in the district & is expected to grow at around 4.1% over the decade (2012-22). Agriculture is anticipated to be the 2nd largest incremental employer in the district accounting for around 15.7% of the total incremental demand for manpower. It is expected to provide incremental employment to around 36,679 persons over the decade.
3	Manufacturing (mineral/metal based units)	<ul style="list-style-type: none"> Manufacturing units of mineral/metal based entities is projected to be one of the largest employers in the district with approximately 7.0% of the total incremental demand for employment estimated to come from this sector over the period 2012-22. In terms of absolute employment, this sector is likely to employ around 16,284 incremental human resources over the decade. Korba district is known for Power, Steel and Aluminium production with Aluminium being one of the major exportable items in the district. The proposed Aluminium Park at Korba over an area of approximately 140 ha. of land would further promote Aluminium based industries and Aluminium downstream industries in the district.

³⁴⁹ Directorate of Geology & Mining, Chhattisgarh

#	Priority Sectors	Growth opportunities in skills development and employment
4	Building and Construction	<ul style="list-style-type: none"> Construction is another major sector in Korba which is expected to grow at 12.0% (2012-22). The total budgeted value for ongoing building and construction activities (building and roadwork) in Korba for the year 2013-14 is allocated at Rs. 86 crores³⁵⁰. Building and construction is projected to be the one of the major contributors in the incremental demand for manpower with approximately 4.4% of the total incremental demand for employment estimated to come from the sector.
5	Trade (Wholesale + Retail)	<ul style="list-style-type: none"> Trade (Wholesale+ Retail) is estimated to grow at around 6.8% in the period 2012-22. The booming manufacturing industry in the district, especially power, steel and aluminium and the presence of a number of micro and small ancillary units along with the growth in building and construction activities has enabled the trade of raw materials as well as finished products in the district resulting in increasing manpower demand in the sector. It is anticipated to be one of the largest employers of the district, providing employment to about 3.0% of the total incremental workers in Korba over the period 2012-22.
Source: Deloitte Analysis		

Considering the economic and skill landscape of Korba, the table below indicates the priority areas of focus for key stakeholders involved. These observations have been mainly derived from the growth opportunities identified above and through primary interactions with industry and industry association representatives in the district along with inputs from the students, training institutes and government.

Table 293: Key Recommendations for Stakeholders - Korba

Stakeholder	Priority Areas
NSDC	<p>NSDC can focus the efforts of its training partners in the key sectors identified in the district, viz.</p> <ul style="list-style-type: none"> ✦ Mining & Quarrying ✦ Agriculture ✦ Manufacturing – Mineral & metal based ✦ Building and Construction ✦ Trade (Wholesale + Retail)
Private training providers	<ul style="list-style-type: none"> ✦ There is a need for more courses in mining & quarrying owing to the likely demand for more trained workers in the sector. Additionally, courses in agriculture, manufacturing (mineral/metal based), building and construction and trade (wholesale + retail) can also be explored. ✦ There is a need for design and delivery of bridge courses with a focus on communication, language, basic IT and soft skills to make students job ready as highlighted in youth survey as well. ✦ There is a need to strengthen/improve the current technology and facilities/equipment in the institute as indicated by around 92% of the youth surveyed in the district.
Government	<ul style="list-style-type: none"> ✦ The Government should promote and endorse vocational education as a practical alternative to formal education with emphasis on providing job ready courses. ✦ The Government should encourage more vocational training institutes on public private partnership mode in the district. ✦ Unavailability of information is one of the key concerns highlighted by youth in the district. For addressing the same, the regional DET offices and employment exchanges

³⁵⁰ Chhattisgarh Public Works Department

	<p>should collaborate together and arrange awareness campaigns in the district with focus on providing information on the VTP/Skill development institutes in the district along with the courses offered, registration process, course requirements, future job opportunities etc. It should be followed by at least one annual job fair in the district organized in collaboration with industry.</p> <ul style="list-style-type: none"> • The CSSDA can set up awareness camps and temporary training centers within villages to provide skill development trainings to the youth. Inaccessibility to the training institutes was also one of the major concerns highlighted by the youth in the district.
Industry	<ul style="list-style-type: none"> • Industry players should provide inputs in curriculum for ITIs and skill development institutes to improve the practical component of learning. Approximately 83% of the students surveyed in Korba expressed their dissatisfaction with the alignment of the training/education currently provided by the educational institutes in the district with the potential job requirements of the employers. • Industry players should also participate in relevant SSCs to provide inputs on the latest trends in the industry especially in the high growth sectors identified in the district. • The large industries in the district like NTPC, KSTPS, BCPP, CSEB, SECL, and BALCO should undertake and encourage vocational training in mining & quarrying and manufacturing (mineral & metal based) sectors as a part of their CSR activities and partner with relevant Skill Development Institutes in terms of infrastructural support, guest/visiting faculty & On The Job training (OJT) etc.

4.18 Korea

4.18.1 District Profile

Korea district, located in the north-western part of Chhattisgarh came into existence on 25th May 1998 from the parent district Surguja.

The district is a part of Surguja division in the north and falls under the northern hills agro-climatic zone. It is surrounded by Sidhi district of Madhya Pradesh on the north, Mungeli and Korba in the south, Surajpur in the east and Shahdol district of Madhya Pradesh on the west. It extends over an area of 6604 sq. Km, which is 4.9% of the total state area³⁵¹. The District is a vast mass of Hill Ranges. The district is divided into 5 tehsils viz. Baikunthpur, Sonhat, Manendragarh, Khadgawan and Bharatpur. Baikunthpur is the administrative headquarter of the district. The district includes 653 villages, 5 Janpad Panchayats, 3 Nagar Panchayats and 3 Nagar Palikas³⁵².

Map 19: Korea District



Korea is known for its coal reserves. The district is also endowed with vast range of forests covering around 62% of the total geographical area. The forest cover of Korea is much higher than the state average & comprises of very dense forest (1.9%), moderately dense forest (63.4%) and open forest (34.6%)³⁵³.

Table 294: Korea District Profile

#	Indicator	Korea	Chhattisgarh	% Share
1.	Area, in sq.km.	6,604	135,190	4.9
2.	No. of sub-districts	5	149	3.4
3.	No. of inhabited villages	653	20126	3.2
4.	No. of households (lakhs)	1.53	56.51	3.1
5.	Average Land holding size (Ha)	0.86	1.17	
6.	Forest area cover	62.19%	41.18%	

Source: Census 2011; Directorate of Economics and Statistics- Govt. of Chhattisgarh; State of Forest Report 2011-Forest survey of India

³⁵¹ Census 2011

³⁵² www.korea.gov.in

³⁵³ State of Forest Report 2011-Forest survey of India

4.18.3 Demography

As per Census 2011, Korea has a total population of 6, 58,917 registering a 12.38% population growth rate over the decade. As of 2011, Korea ranks 21st among all the 27 districts of Chhattisgarh in terms of population. The district shares approximately 2.58% of the state's population. About 68.84% of the total population resides in rural areas with 31.16% of them being urban residents.

The decadal population growth in Korea during 2001-2011 was 12.38%, which is lower than the population growth of 17.09% during the period 1991-2001.

The population density of the district has improved over the decade with around 89 persons per sq. km. to 100 persons per sq. km; however it is much lower than the state average (189). About 61.5% of the district's population is in the working age population class group. Korea registered one of the lowest sex ratio in Chhattisgarh despite the district marking an improvement in sex ratio over the decade with around 968 females present per 1000 male compared to the 2001 census figure of 946. The per capita income in the district is lesser than the state average.

Table 295: Demographic Indicators of Korea

Demography	Korea	Chhattisgarh
Population (2011)	6,58,917	2,55,40,196
Population 15-24 (2011)	1,36,804	49,89,339
Decadal Population Growth Rate (2001-11)	12.38%	22.6%
Population density per sq. km (2011)	100	189
Percentage of Urban Population (2011)	31.16%	23.2%
Percentage of SC population (2011)	8.3%	12.8%
Percentage of ST population (2011)	46.2%	30.6%
Average household size	4.30	4.54
Sex Ratio (2011)	968	991
Working age population (15-59) as a percentage of total population, %	61.5%	60.1%
Per Capita Income (2009)	Rs. 25862 ³⁵⁴	Rs.28263
Source: Census of India 2011; Directorate of Economics and Statistics- Govt. of Chhattisgarh; Deloitte Analysis		

Key Observations:

- Korba is basically a tribal dominant district with Scheduled Tribes comprising approximately 46% of the entire district population. The Scheduled Tribe population of the district is significantly higher than the state average (30.6%).
- Despite a marked improvement in sex ratio over the decade, Korea registered one of the lowest sex ratio (968) in Chhattisgarh.

³⁵⁴ Deloitte Analysis (At 2004-05 constant prices)

4.18.4 Economic Profile

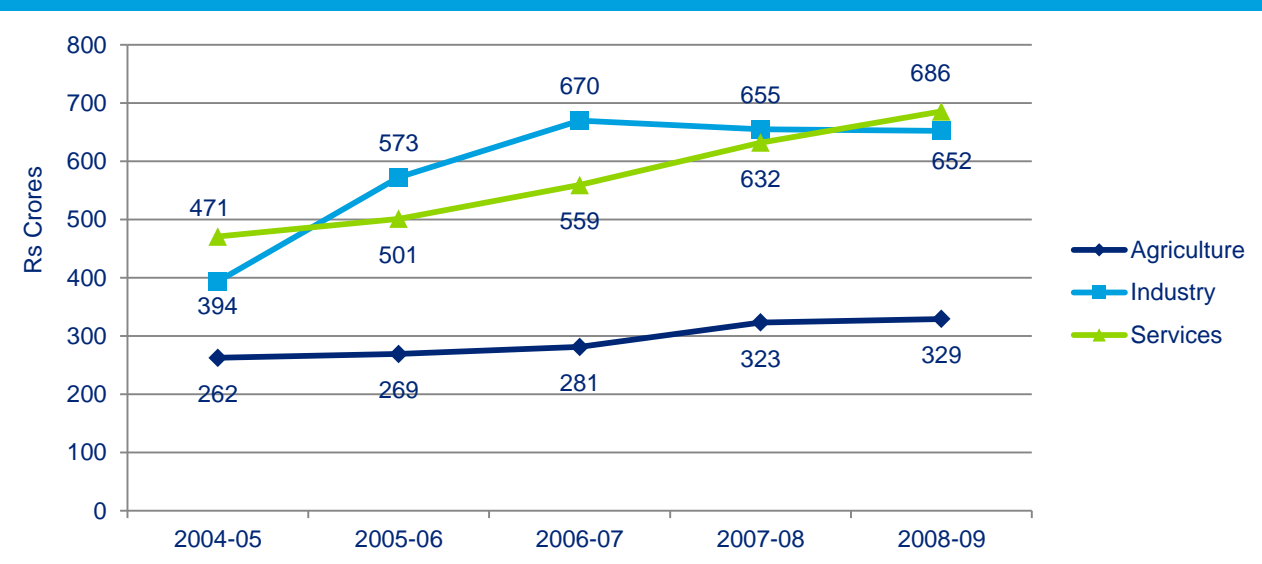
The economy of Korea has registered a CAGR of about 10.3% (estimated at constant prices, 2004-05) between 2004-05 and 2008-09 and grown from Rs. 1,126.93 cr to Rs 1,666.81 cr. The district recorded a higher growth as compared to the state growth of 9.6% over the same period.

In 2008-09, Korea district contributed 2.4% in the state economic activity. At Rs. 1,666.81 cr, Korea ranked 13th amongst all 27 districts of Chhattisgarh in terms of economic activity.

The economy of Korea district is pre-dominantly Services and Industry sector based with their share in GDDP being **41.1% and 39.1%** respectively in 2008-09. This is followed by Agriculture sector which contributes 19.8% in the district economic profile.

In terms of sector level contribution to GDDP, the Agriculture sector's contribution has declined from 23.3% in 2004-05 to 19.8% in 2008-09, as indicated in the figure below. Similarly, the Services sector contribution also registered a marginal decline from 41.8% to 41.1% between the same time periods. However, the economic contribution of Services sector in the district has grown consistently. It is important to note that the share of Industry sector in the district has increased from 35% to 39.1%, primarily due to increased contribution of mining & quarrying activities. The sector-wise GDDP growth and distribution from 2005-09 is provided below.

Figure 315: Sectoral Share of GDDP, 2004-05 to 2008-09, Korea



Source: Directorate of Economics and Statistics- Govt. of Chhattisgarh, 2004-05 base prices

Agriculture sector

The contribution of Agriculture sector (agriculture, forestry & logging and fishing) to the GDDP was 19.8% in 2008-09. The sector grew at a CAGR of 5.8% between 2004-05 & 2008-09, however, the overall contribution of the sector declined in the district. Agriculture is the chief contributor in the total output of the Agriculture sector in the district contributing 68% in the year 2008-09 followed by forestry & logging (28%) and fishing (4.0%).

The district has a tropical climatic condition. Out of the total geographical area of 6.60 lakh ha, gross cropped area in the district is 1.12 lakh ha and net cropped area is 1.02 lakh ha³⁵⁵. A small part of the district lies in the Ganga basin with a significant portion of the district falling in the Mahanadi basin. Gopad (the major tributary of Son) drains the northern portion of the District. Hasdeo (major tributary of Mahanadi) is the largest river flowing towards the South and drains the South-Western part of the District. The main tributaries of Hasdeo are Gej, Jhumka and Bania. The Eastern part of the District comes in the Son basin and is drained by Gobri river which joins Rehar in Surguja District. The rivers provide water for irrigation to the district. Besides, the tropical climate of the district also encourages agricultural production. Wheat, Rice, Pigeon pea, maize and groundnut are the major field crops in the state. In terms of horticultural produce, Mango, Banana, Guava etc. are grown in the district.

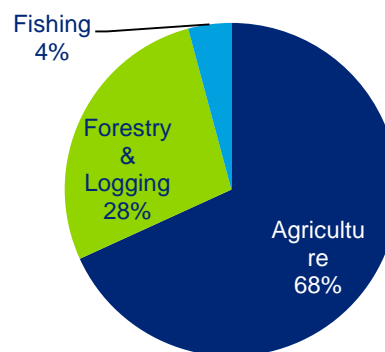
Forestry and logging activities also play an important role in the district economy. The common trees available in the district are Sal, Mahua, Tendu, Palas, Char, Bija, Harra, Bahera, Sisam, Kusum, Salya, Khair, Arun, Gamhar, Bamboo etc. providing an alternate livelihood opportunity to the inhabitants through collection of minor forest produce.

Korea falls under the Surguja forest circle and the important non nationalized species available in the district are Mahulpatta, Mahua, Chironjee, Aonla, Baheda, Dhawai, Baibiding, Bhelwa and Nagarmotha.

Industry sector

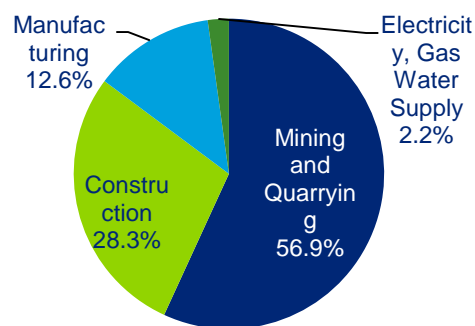
The Industry sector (manufacturing, mining & quarrying, construction, electricity, gas and water supply) contributed 39.1% to the GDDP in 2008-09. The sector grew at a CAGR of around 13.4% between 2004-05 & 2008-09. The overall contribution of the sector in the district economic profile increased from 35% in 2004-05 to 39.1% in 2008-09.

Figure 316: Sub-sectoral break-up of Agriculture sector (2008-09), Korea



Source: Directorate of Economics and Statistics-Govt. of Chhattisgarh

Figure 317: Sub-sectoral break-up of Industry sector (2008-09), Korea



Source: Directorate of Economics and Statistics, Govt. of Chhattisgarh

³⁵⁵ Statistical Pocket Book of Chhattisgarh, Directorate of Economics and Statistics-2010-11

Mining & Quarrying sector is the major contributor within the Industry sector accounting for a sectoral share of 56.9% followed by construction (28.3%), manufacturing (12.6%) and electricity, gas & water supply (2.2%). A total budgeted value for ongoing building and construction activities (building and roadwork) in Korea for the year 2013-14 allocated at Rs. 153 crores shows the current focus of the district on the sector³⁵⁶.

Korea is very rich in coal with the district being endowed with vast reserves of high-grade Coal. In 2010-11, the production of coal from the district was recorded at 60.98 lakh tonnes³⁵⁷. The chief coal belts are present in the Hasdeo basin. The major deposits of coal are found in Chirimiri, Jhagrakhand, Curcha, Katkona, Pandavpara and Sonhat, Nagar, Amritdhara, Gutra, Kilhari, Pathalgaon and Damuj-Labji. The key coal fields in the district are summarized below.

Table 296: Key Coalfields in Korea

S#	Coalfield	Coal Mines
1	Chirimiri Coalfields	Chirimiri, Kurasia, N.C.P.H., Korea, Domanhill, Gelhopani (North Chirimiri) and West Chirimiri
2	Baikunthpur Coalfields	Charcha, Pandavpara and Katkona
3	Jhagrakhand/Hasdeo Coalfields	-

Source: Korea.gov.in

Chirimiri coalfields produce A and B grades of coal. Apart from the occurrence of coal, there are small deposits of limestone, fire clay and red oxide as well in the district.

The total mineral revenue receipt from mining of minerals in the district in 2012-13 was Rs. 21797.95 lakhs (Major Mineral: Rs. 21482.41 Lakhs, Minor minerals: Rs. 312.19 lakhs and others: Rs. 3.35 lakhs) which was the 5th highest in the state³⁵⁸.

As per the Industrial profile of Korea district by MSME-DI, Raipur, there are a total of 678 registered units in the district. The district has an industrial area at Chainpur developed over an area of 2.42 ha with 13 plots established³⁵⁹. The investment in micro and small enterprises in the district along with employment is captured in the figure below.

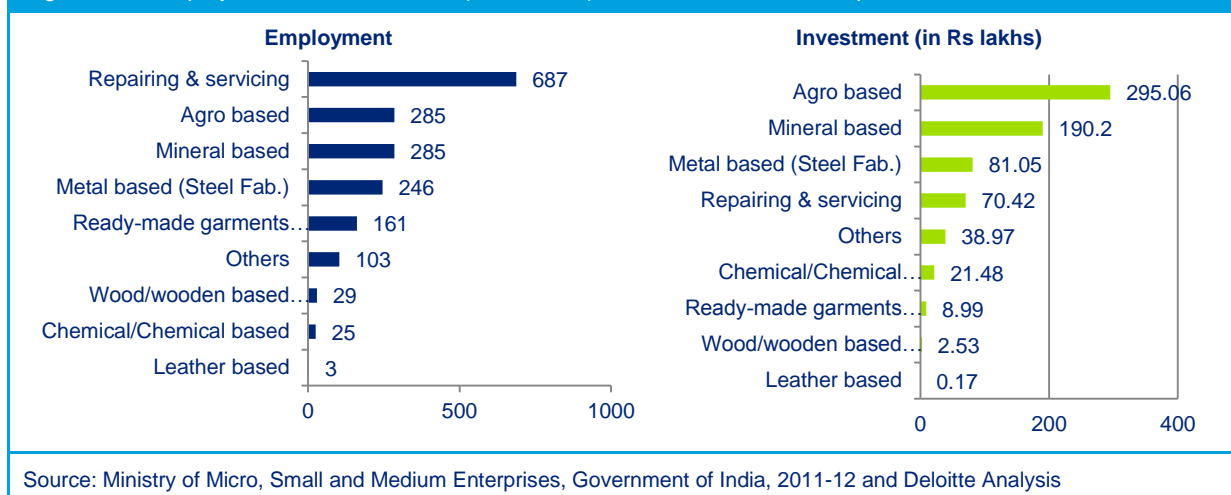
³⁵⁶ Chhattisgarh Public Works Department

³⁵⁷ District Statistical Hand Book, Korea

³⁵⁸ Directorate of Geology & Mining, Chhattisgarh

³⁵⁹ Brief Industrial profile of Korea district, MSME-DI, Raipur

Figure 318: Employment and Investment (in Rs lakhs) in micro and small enterprises, Korea



The key micro and small industries in the sector in terms of employment include repairing and servicing entities, agro based industries, mineral based industries; metal based (steel fabrication) units and ready-made garments & embroidery units. As evident from the figure, the key industries in the MSME sector in terms of investment are agro based industries, mineral based industries; metal based (steel fabrication) units, repairing and servicing entities and other manufacturing units.

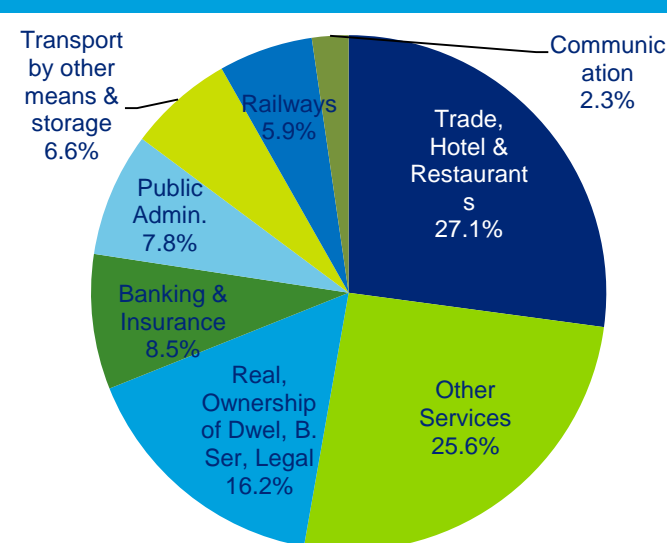
Services sector

The Services sector contributed about 41.1% of the district economic profile in the year 2008-09. The sector grew at a CAGR of around 10% between the period 2004-05 & 2008-09.

The key contributor to the sector is trade, hotel and restaurants contributing approximately 27.1% in the total Services sector profile followed by other services (25.6%), Real estate (16.2%), BFSI (8.5%) and Public Admin (7.8%).

With a CAGR of about 19.8% and 16.9% over the period 2005-2009, Banking & Insurance and Communication were amongst the fastest growing sectors in the district respectively, though their absolute sizes were small. In 2011, Korea had a total of 30 commercial banks, 19 rural banks and 8 co-operative banks recording 16% increment in the number of bank branches over the previous year. Guru Ghasidas National Park, Amritdhara Waterfall, Ramdaha Waterfall and Gaurchat Waterfall are some of the chief sightseeing places in the district.

Figure 319: Sub-sectoral break-up of Services sector (2008-09), Korea



Source: Directorate of Economics and Statistics, Govt of Chhattisgarh

Key Observations:

- ♦ The economy of Korea district is pre-dominantly Services and Industry sector based with their share in GDDP being **41.1% and 39.1%** respectively in 2008-09.
- ♦ Share of Industry sector in the district economy has increased from 35% to 39.1% over the period 2004-05 to 2008-09, primarily due to increased contribution of mining and quarrying sector.
- ♦ In 2009, mining & quarrying occupied the highest share in district economy at 22.2% followed by agriculture (13.5%), Trade, Hotels & Restaurant (11.2%) and Construction (11.1%).

4.18.5 Employment Profile

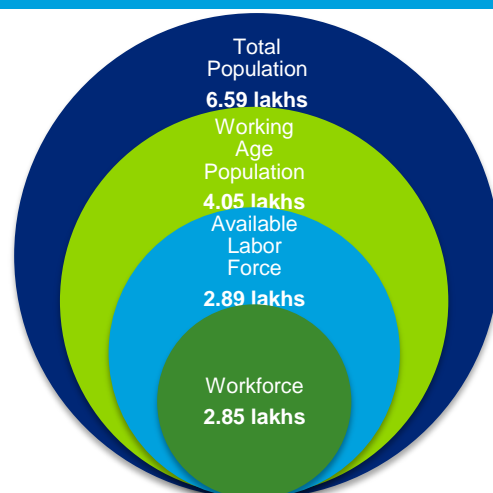
With a population of 6.59 lakhs in the year 2011, Korea accounts for nearly 2.58% of the state's population.

The adjacent figure depicts the estimated workforce in Korea in the context of total population of the district. Out of the total population of 6.59 lakhs, the working age population (between 15-59 age group) is estimated at 4.05 lakhs or nearly 61.5%.

Based on the labor force participation rate and the worker participation rate estimates for the state, the available labor force is estimated to be 2.89 lakhs, and the workforce is estimated at 2.85 lakhs or nearly 70% of the working age population.

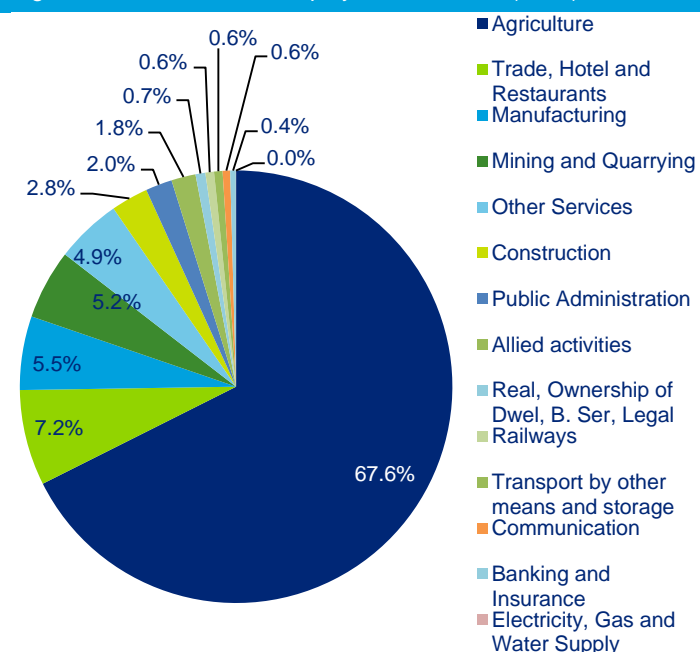
Agriculture sector is the highest employer in the district in 2011 employing around 69.4% of the total available work force; however, the sector contributes the least in the district's economic profile during the same period with around 11.3% share in the Gross District Domestic Product.

Figure 320: Total Workforce in Korea (2011)



Source: Census 2011 and Deloitte Analysis

Figure 321: Sector wise employment in Korea (2011)



Source: Census 2011 and Deloitte Analysis

Services sector is the second highest employer in the district employing around 17.1% of the workforce available in 2011 and contributed around 32.5% in the district economic profile.

The Industry sector is the chief contributor in the district economy in 2011, with a share of around 56.2% of the Gross District Domestic Product. The sector employs around 13.5% of the district's workforce.

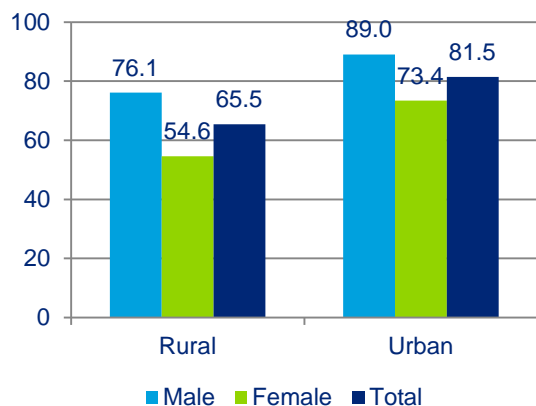
The adjoining figure summarizes the sector-wise employment share in Korea for the year 2011. Agriculture accounted for around 67.6% of the total employment in the district followed by trade, hotels and restaurants (7.2%), manufacturing (5.5%), mining and quarrying (5.2%) and other Services sector (4.9%). The top five sectors in the district in terms of

employment account for around 90% of the total employment of the available workforce in Korea in 2011.

4.18.6 Education Infrastructure

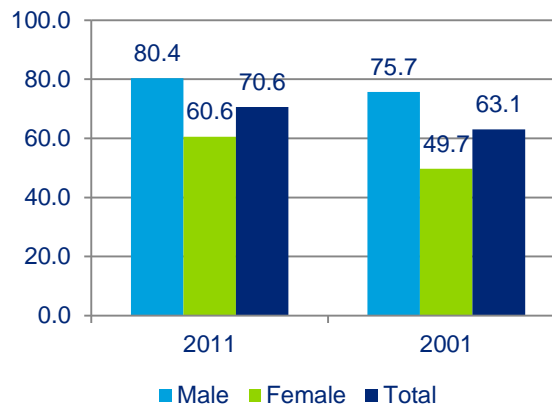
The literacy rate in Korea has improved from 63.09% in 2001 to 70.64% in 2011³⁶⁰. The literacy rate of the district is comparable to the state's literacy rate of 70.3% in 2011 as well as the all-India literacy rate of 73%. In 2011, male and female literacy rates stood at 80.37% and 60.60% respectively, both figures improving compared to the 2001 figures of 75.68% and 49.73% respectively. However, there still exists a significant disparity between the male-female and urban-rural literacy rates.

Figure 322: Literacy rate 2011 (by residence), Korea



Source: Census of India 2011

Figure 323: Literacy rate (by Gender), Korea



Source: Census of India, 2001 and 2011

School Education

Korea has 1039 primary schools, 502 upper primary schools, 123 secondary schools and 145 higher secondary schools. Net enrolment ratio (NER) at the upper primary level (67%) for the year 2010-11 is comparable to the state NER of 67.8%.

Table 297: Status of school education infrastructure in Korea, 2013

#	Educational Statistics	Units in Korea	Units in Chhattisgarh	% Share of District in State
1	Primary School	1039	35588	2.9%
2	Upper Primary School	502	16442	3.1%
3	Secondary School	123	2632	4.7%
4	Higher Secondary School	145	3548	4.1%
5	NER (Primary) (2010-11)	92.3%	98.0% ³⁶¹	-
6	NER (Upper Primary) (2010-11)	67%	67.8%	-

Source: DISE 2012-13

³⁶⁰ Census 2011

³⁶¹ Data is for 2008-09

Vocational Education

For vocational training, Korea has a total of 8 ITI's in the district, of which 5 are Government Industrial Training Institutes and 3 are Private Industrial Training Institutes. Korea has no dedicated woman ITI. The total capacity of the ITI's in the district is 912. While the capacity of Govt. ITI's is 560, the capacity of Private ITI's is 352. Electrician course has the maximum units affiliated among ITI's in the district.

The number of courses available in ITIs and their capacity are listed in the table below:

Table 298: ITI's in Korea and their capacity

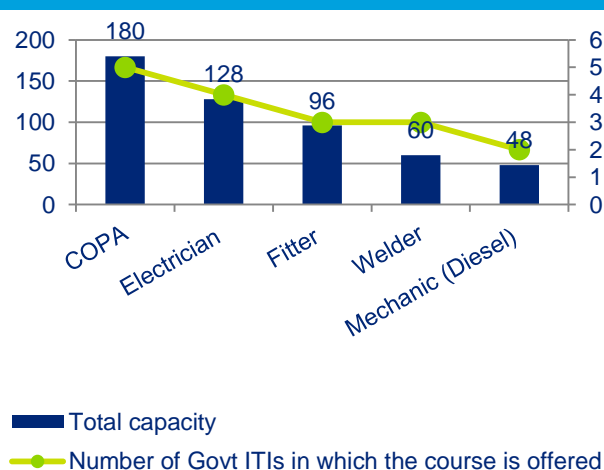
Name of ITI	Number of courses offered	Total Units affiliated	Total Capacity
Government Industrial Training Institute, Chirimiri	5	9	144
Government Industrial Training Institute, Katghodi	4	6	100
Government Industrial Training Institute, Manendragarh	4	8	136
Government Industrial Training Institute, Janakpur	6	10	160
Government Industrial Training Institute, Baikunthpur	1	1	20
Agrasen ITC	1	12	192
Puri ITC	1	2	32
New Maharana ITC	1	8	128
Total	7*	56	912

Source: Department of Higher and Technical Education, Chhattisgarh; Deloitte Analysis

*Total number of different courses offered by ITI's in Korea

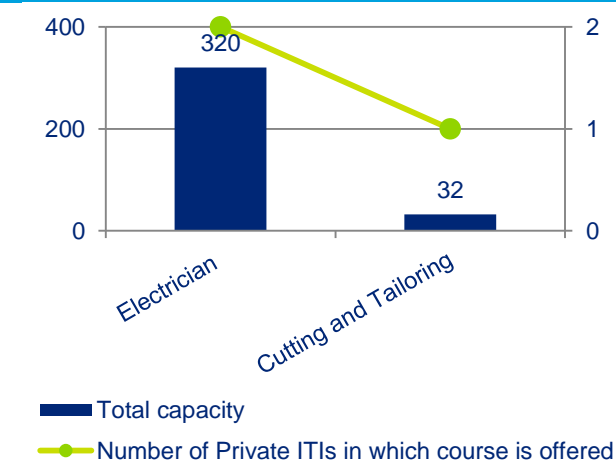
The major courses offered in the ITI's and their capacity in Korea is given in the figure below.

Figure 325: Major courses offered in Govt. ITIs and their capacity in Korea



Source: Department of Higher and Technical Education, Chhattisgarh; Deloitte Analysis

Figure 324: Courses offered in Private ITIs and their capacity in Korea



Source: Department of Higher and Technical Education, Chhattisgarh; Deloitte Analysis

According to Chhattisgarh State Skill Development Mission Website, as of 12th March, 2014, Korea has 22 Vocational Training Providers (VTPs) under which there are 4696 registered beneficiaries. The following table highlights the courses offered in vocational education, which currently meet requirements of about 9 sectors.

Table 299: Courses offered in vocational education, Korea

Sector	ITI trades and Units affiliated	Courses Offered by VTPs
Auto and auto components Electronics and IT hardware	Electrician(28), Fitter(6), Mechanic(3), Welder(5),	Electrical, Fabrication, Automobile, Automotive Repairs
IT and ITES Tourism, hospitality and travel Banking, financial services and insurance	Computer Operator and Programming Assistant(9), Driver cum Mechanic(1)	ICT, Soft skill
Textiles and clothing	Cutting and Tailoring (4)	Textile Silk, Garment making, Sericulture
Building, construction and real estate Construction material and building hardware		Construction
Unorganized sector (particular reference to agriculture, security, plumbing, domestic worker, foundry, etc.)		Toy Making, Agriculture, Poultry, Fisheries & Allied Sector
Source: CSSDA Website		

The following table highlights the NSDC partners present in Korea as of January 2014 and the courses offered by them.

Table 300: NSDC partners present in Korea

Name of Partner	Sectors in which course is offered	Courses offered
AISECT	IT/Software	<ul style="list-style-type: none"> ◆ Diploma in Computer Applications (DCA) ◆ Post Graduate Diploma in Computer Applications (PGDCA) ◆ Diploma in Computer Programming and Applications (DCPA)
	ITES-BPO	<ul style="list-style-type: none"> ◆ Diploma in Computer Applications (DCA) ◆ Post Graduate Diploma in Computer Applications (PGDCA) ◆ Diploma in Computer Programming and Applications (DCPA)
Source: NSDC		

Higher Education

The status of higher education in Korea is not very promising. Out of a total 590 colleges in the state, only 13 colleges are in the district of Korea indicating the district's share in the higher education space of the state at just 2.2%. This is lower in comparison to the share of population of Korea to the state (2.6%). Moreover, out of the 13 colleges present in the district, 9 offer only general degree courses. It is to be noted that there are no technical, management or medical college in the district.

Table 301: Number and Capacity of Higher Education infrastructure in Korea

#	Colleges	Number	Estimated Capacity*
1	Arts, Science and Commerce	9	-
2	Teacher Education	2	-
3	Nursing	1	40
3	Agriculture	1	24
	TOTAL	13	-
*Source: University/College websites			

Key Observations:

- ♦ The status of higher education in Korea is not very promising with the district's share in the higher education space of the state at just 2.2%.
- ♦ Moreover, more than 2/3rd of the colleges present in the district offer only general degree courses.

4.18.7 Youth Aspirations

Youth population constitutes the most important demographic section for a district from a skills development perspective. In the process of capturing the aspirations of the youth population in Korea, focused group discussions (FGD's) and surveys were held with youth from educational institutions as well as residing in rural areas to understand their concerns, areas of interest and future dreams and goals. The youth survey in Korea was conducted at the Government Industrial Training Institute, Baikunthpur; Government polytechnic and AISECT College, Baikunthpur. The FGD was conducted at the Gram Panchayat Bhavan, Bhadi, Korea. In terms of the profile of the candidates, around 50% of the respondents were in the age group 15-20 while 38% of them were between 21-25 years. Remaining 12% of the respondents were 26 years and above. In terms of gender representation, around 55% of the participants were males and 45% were females. The educational qualification of about 65% of the participants was high-school level or below. Around 17% of them were graduate and above with the remaining participants being diploma/certificate holder.

The key observations about aspirations of the youth of the district are highlighted below:

Table 302: Youth Aspiration – Key Responses – Korea

Parameters	Responses
Job Preference	Most of the youth preferred Government jobs over private jobs due to the job security offered in a Government job.
Factors influencing selection of training institution	Institutions of higher education are selected by youth on the basis of future employment prospects and availability of seats/ subject of interest.
Preferred Course	<ul style="list-style-type: none"> ♦ Training for job readiness appears to be most popular among the youth in the district. Apart from the regular courses offered by educational/ training institutions; spoken English, basic communication skills, personality development, soft skills & basic IT skills are considered to be very important by the youth. ♦ Women in the district are interested in tailoring & sewing and micro-industries like papad making, hawan samagri etc. ♦ Men are interested in self-employment activities like mobile repairing, aquaculture, animal rearing etc. ♦ The youth esp. at the gram Panchayat emphasized the need for Technical knowledge relating to agriculture.
Migrating for job	Most of the youth (76%) particularly females prefer jobs within the district . Around 84% of the youth surveyed prefer to work within the district. But males are willing to go outside district and state for jobs.
Salary Expectations	Average monthly salary expectation of youth is around Rs. 10,000/- and above according to the qualifications.
Areas of concern/ aspirations- Infrastructure	<p>Following views were expressed regarding infrastructure in educational institutions:</p> <ul style="list-style-type: none"> ♦ Youth reported poor quality of infrastructure in the institutes in terms of books in the library, building, laboratories etc. ♦ The inadequacy of computers in schools and non-functioning of those available was also highlighted. ♦ Blackboards, chalks and other basic amenities should be properly provided. ♦ They reported the absence of playground for sports activities and emphasized the need for proper sanitation and drinking water facilities.
Areas of concern/ aspirations-Course Curriculum	<ul style="list-style-type: none"> ♦ Youths expressed that a fixed Time table should be followed by the institutes to be regular with studies. ♦ Quality of education should be improved so that students are able to face national level competitions.

Parameters	Responses
	<ul style="list-style-type: none"> Youth feel that institutes should focus more on soft skill and language training besides technical know-how, and it is critical for getting a good job. Local industries should train people on apprenticeship/ intern model to improve job prospects.
Other concern	<ul style="list-style-type: none"> Very few youth expressed their interest to study further for better employment opportunities. It was also learnt that youth are not aware about the training centers established in the district at free of cost.
Suggestions given by youth	<ul style="list-style-type: none"> The youth expect Govt. to take up initiatives to improve college infrastructure. There should be more courses, practical classes, resourceful, efficient and regular teachers available in the institutes. Youth also expressed that Govt. should provide scholarships to the underprivileged students in the district. Computers should be taught to the candidates before Class X. Counseling before taking admission in any course was suggested by the youth so that they can understand the proper career path.

A sample survey was conducted with youth at gram panchayat level & those coming out from various educational institutions (Government & private) to understand & capture their aspirations. The findings are presented below:

Job preference by youth

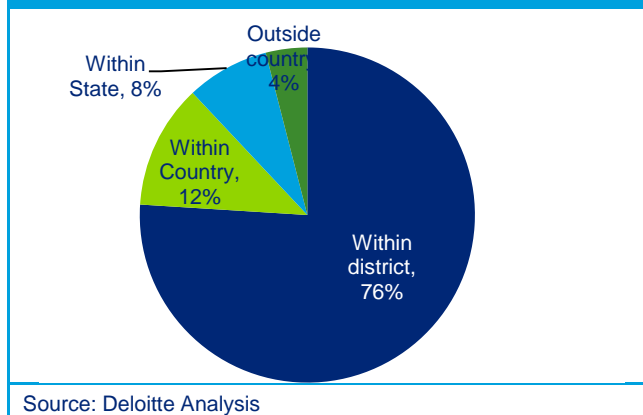
More than three-fourth of the candidates surveyed (76%) **prefer to get a job within their home district** as is evident from the adjacent figure. Approximately 12% of them preferred job within their state of residence. . The survey reveals that not many youth are interested to migrate out of state in search of jobs. The survey highlights the fact that around **84% of the youth surveyed wanted to get a job within Chhattisgarh** thus demanding and necessitating the creation of suitable positions and absorption capacity for them in the employment market.

Parameter for Institute Selection

A majority of the students surveyed (74%) quoted the prospects of future employment as their necessary criteria for choice of educational institute.

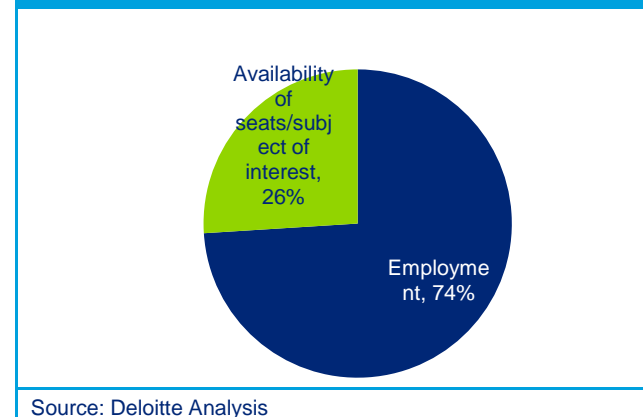
Around 26% of the respondents especially at the gram panchayat level quoted the **proximity of the educational institution** as their prime parameter while selection of an institute for higher education.

Figure 326: Job Preference by Youth



Source: Deloitte Analysis

Figure 327: Parameter for Choice of Institute

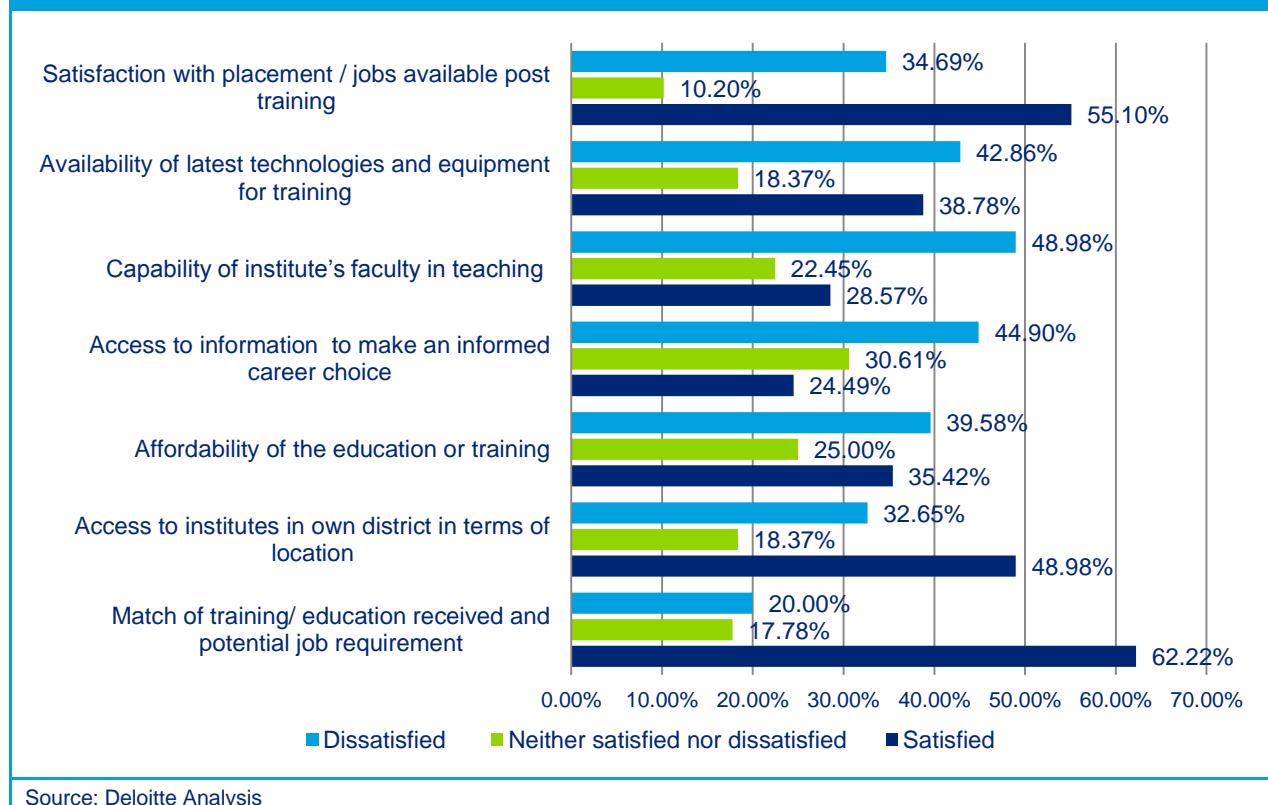


Source: Deloitte Analysis

Youth Perception Mapping

Youth perception mapping was undertaken to understand their level of satisfaction with either their current institute or their experience and feedback on the available educational infrastructure. The results are summarized below:

Figure 328: Youth Perception Mapping, Korea



Satisfaction with placement / jobs available post training: Around 55% of the students surveyed expressed their satisfaction with the placement opportunities available in the institute or jobs available post training. While around 35% of them felt the job opportunities available to them post training were not satisfactory. They shared their expectation of being provided with a placement opportunity by the institute or facilitate a tie-up with nearby companies to give them an experience of hands on training.

Non-availability of latest technologies and equipment for training: The students were equally opined as far as availability of latest technology and equipment in the institute is concerned. While 39% of the students were satisfied with the availability of latest technology & equipment for training in the institute, around 33% of them expressed their dissatisfaction with the same. They felt the lack of equipment as a major constraint for their knowledge enhancement and appropriate level of skill development. They demanded that the institutes to be adequately equipped and upgraded with latest technology.

Dissatisfaction with capability of institute's faculty in teaching: Around 50% of the students surveyed feel the **quality of teaching by faculty** is not satisfactory and needs significant improvement. They demanded the number of faculty to be increased as per the demand of the course and the **lack of quality faculty in the institute to be compensated by inviting visiting faculty from outside**.

Need for better access to information to make an informed career choice: Around 45% of the students shared that they did not get proper accessibility to information in order to make an informed career choice. The concern was raised more by the rural youth. They emphasized the importance of career counseling while making a choice for higher education.

Affordability not as high a concern as quality and value for money in education or training: The students were almost equally opined as far as affordability of the education or training programme in the institute is concerned. While approximately 40% of the students expressed their concerns over affordability of the education or training programme, around 35% of them felt that the fees charged by the education/ training institute was not a barrier for them and considered it to be affordable for them. They raised their concern that the quality of the training programme offered should be commensurate with the fees charged.

Access to institutes is an issue in rural areas: 49% of the students surveyed expressed their satisfaction with the accessibility of the educational institutes in terms of location. They found the institute to be located in an accessible area and safe in terms of the duration of classes. Around 33% students felt the educational institutes to be inaccessible in terms of location and majority of them were rural youth. The rural youth voiced the government to support them by arranging suitable transport facility.

Satisfaction with the alignment of training/education received with job requirements: Approximately 62% of the students surveyed feel that the training/education currently provided by the educational institutes in the district is in alignment with the job requirements of the business. Approximately 20% of the youth felt that the training/ education received by them don't match the potential job requirements of the employers.

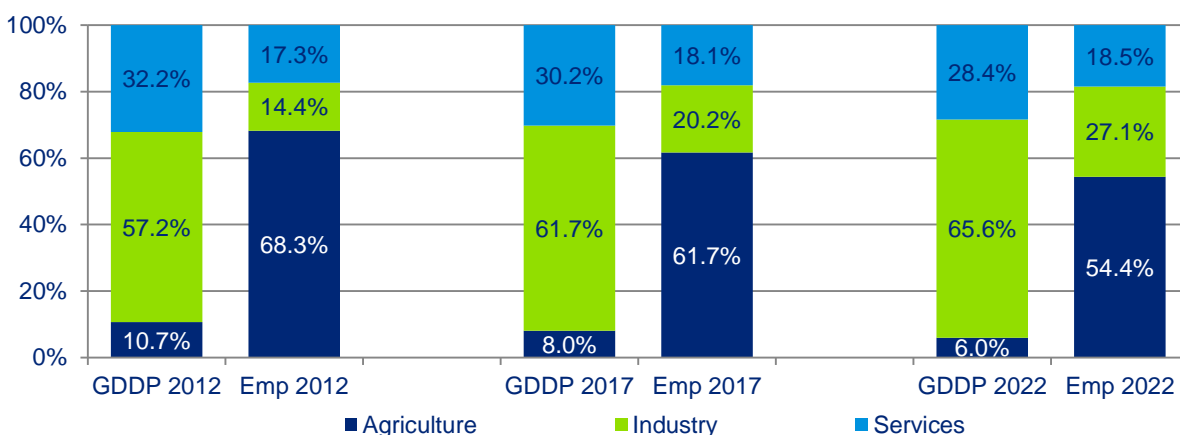
Key Observations:

- ♦ Govt. Jobs were preferred over private with an expected salary of around Rs. 10,000/- and above according to the qualifications.
- ♦ Institutions of higher education are selected by youth on the basis of future employment prospects and availability of seats/ subject of interest.
- ♦ Around 84% of the youth surveyed prefer to work within the district.
- ♦ Women in the district are interested in tailoring & sewing and micro-industries like papad making, hawan samagri etc. while men are interested in self-employment activities like mobile repairing, aquaculture, animal rearing etc. The youth esp. at the gram Panchayat emphasized the need for Technical knowledge relating to agriculture.
- ♦ Youth feel that institutes should focus more on soft skill and language training besides technical know-how, and it is critical for getting a good job.
- ♦ The youth expect Govt. to take up initiatives to improve college infrastructure - particularly updating the library and laboratory with latest computers, tools and equipment.
- ♦ Youth suggested that the lack of quality faculty in the institute may be compensated by inviting visiting faculty from outside.
- ♦ Youth are not aware about the different Government initiatives on skill development
- ♦ The need for career counseling prior to admissions was strongly expressed by the youth

4.18.8 Skill Gap Assessment

The working age population (15-59) constituting 61.5% of total district population in 2011, is expected to increase to 65.4% by 2022.

Figure 329: Comparison of Sectoral share in GDDP & Employment, Korea



Source: Deloitte Analysis

Based on our analysis and primary interactions, the Agriculture sector is expected to play a significant role and will continue to be an important sector in terms of providing employment in the district. It currently accounts for the largest share of workforce and is anticipated to be the major employer in the district. If the trends in employment continue, in 2021-22, the share of employment across the Agriculture sector is expected to decline to 54.4% as compared to 68.3% in 2012.

The Industry and Services sector employment share are estimated to increase to 27.1% and 18.5% respectively, as indicated in the table above. This trend appears to be in line with the national trend as well where people are moving out of the Agriculture sector and moving into the Industry and Services sectors respectively.

Incremental Human Resource Demand

As per the methodology, the total incremental demand for manpower in Korea from 2012 to 2022 is expected to be around 1.00 lakh. Following table provides the break-up of the incremental demand for manpower in Korea as per the skill levels required.

Table 303: Estimated Incremental Human Resource Demand ('00) by Skill Level in Korea

	2012-17	2017-22	Total
Skilled	69	90	159
Semi-Skilled	141	191	333
Minimally Skilled	218	294	511
Total	428	576	1,003

Source: Deloitte Analysis

Some of the key trends observed on the demand side include

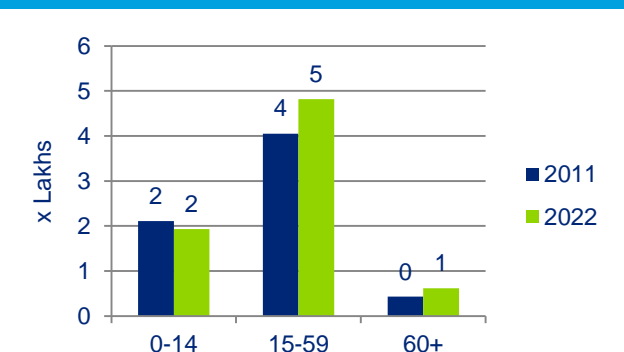
- ♦ *Mining & Quarrying will be the largest incremental demand generating sector (45.8%) with demand largely in the minimally skilled level. Korea is very rich in coal with the district being endowed with vast reserves of high-grade Coal. The chief coal belts are present in the Hasdeo basin. The major deposits of coal are found in Chirimiri, Jhagrakhand, Curcha, Katkona, Pandavpara and Sonhat, Nagar, Amritdhara, Gutra, Kilhari, Pathargaon and Damuj-Labji. Apart from the occurrence of coal, there are small deposits of limestone, fire clay and red oxide as well in the district. The wide occurrence of minerals in the district would facilitate the mining activities in Korea.*
- ♦ *Agriculture is anticipated to be the second largest incremental demand generating sector (10.1%) in the district.*
- ♦ *Building and Construction (9.7%) is one of the other key growth sectors in Korea in terms of incremental demand for manpower.*
- ♦ *In the services sector, trade - retail + wholesale (5.9%) is expected to be one of the major employers in Korea.*
- ♦ *Analysis of formal and informal employment indicates that the incremental demand for manpower in formal sector would come mainly from Mining & Quarrying, Building and Construction, BFSI, Public Administration and Trade (Retail + Wholesale)..*
- ♦ *Majority of demand for incremental manpower in the informal sector is projected to come from Agriculture, Mining & Quarrying, Manufacturing (mineral/metal based), Building & Construction and Trade (Retail + Wholesale).*

Table 304: Incremental Human Resource Demand ('00) by Skill Level in Korea- Key Sectors

#	Key Sectors	2012-17				2017-22			
		Skilled	Semi-skilled	Minimally Skilled	Total	Skilled	Semi-skilled	Minimally Skilled	Total
1	Mining & Quarrying	17	51	103	171	29	86	173	288
2	Agriculture	2	5	46	53	1	5	42	48
3	Building & Construction	6	17	19	43	8	22	25	55
4	Trade (Retail + Wholesale)	4	15	10	29	4	15	10	30
5	Manufacturing (Mineral/Metal based)	5	16	5	27	6	19	6	31
6	Others	34	37	34	104	41	45	38	124
7	Total	69	141	218	428	90	191	294	576
Overall Incremental Demand					1,003				
Source: Deloitte Analysis									

Incremental Human Resource Supply

Figure 330: Age wise distribution of population, Korea 2011 and 2022 (projected)



Source: Census 2011 and Deloitte Analysis

The population of Korea is expected to increase from 6.59 lakhs in 2011 to 7.36 lakhs in 2022.

The adjacent figure provides the current and projected population across various age groups. As per the analysis, the number of persons in the working age group is expected to increase by around 19% during the period 2011-22. The number of children in the 0-14 age group is likely to decline by 8% over the same time period. This represents a potential demographic dividend for the district with a large increase in the employable population. On the other hand, it presents a huge challenge for the state to make available higher

education and skill development facilities as well as ensure productive employment opportunities for its working age population.

As per the methodology, the estimated incremental manpower supply in Korea over a period of 10 years (2012-22) will be around 0.92 lakh. Incremental manpower supply can be further classified into skilled, semi-skilled and minimally-skilled as per the education qualifications and estimated output of educational and vocational training institutes in the district.

Table 305: Estimated Incremental Human Resource Supply ('00) by Skill Level in Korea

	2012-17	2017-22	Total (2012-22)
Skilled	67	70	138
Semi-Skilled	173	193	366
Minimally Skilled	216	200	416
Total	456	463	920

Source: Deloitte Analysis

Some of the key trends observed on the supply side include

- Proportion of incremental supply of minimally skilled manpower is 45.2%, compared to 39.8% of semi-skilled and 15.0% of skilled manpower (2012-22)
- Korea has only 13 out of 590 colleges in the state indicating the district's share in the higher education space of the state at 2.2%. Moreover, more than 2/3rd of the colleges present in the district offer only general degree courses. Owing to the lesser presence of the colleges in the district, the proportion of skilled workers in the total workforce in the district is anticipated to be the least (15%) and likely to increase slightly over the decade.
- The supply of semi-skilled workforce in the district is estimated to increase over the two time periods which are in-line with the current focus of government in improving the skill development space of the state.
- The trend of migration is expected to be inward from other states and districts across all skill levels and would account to nearly 1.6% of the incremental supply.

Incremental Demand Supply Gap

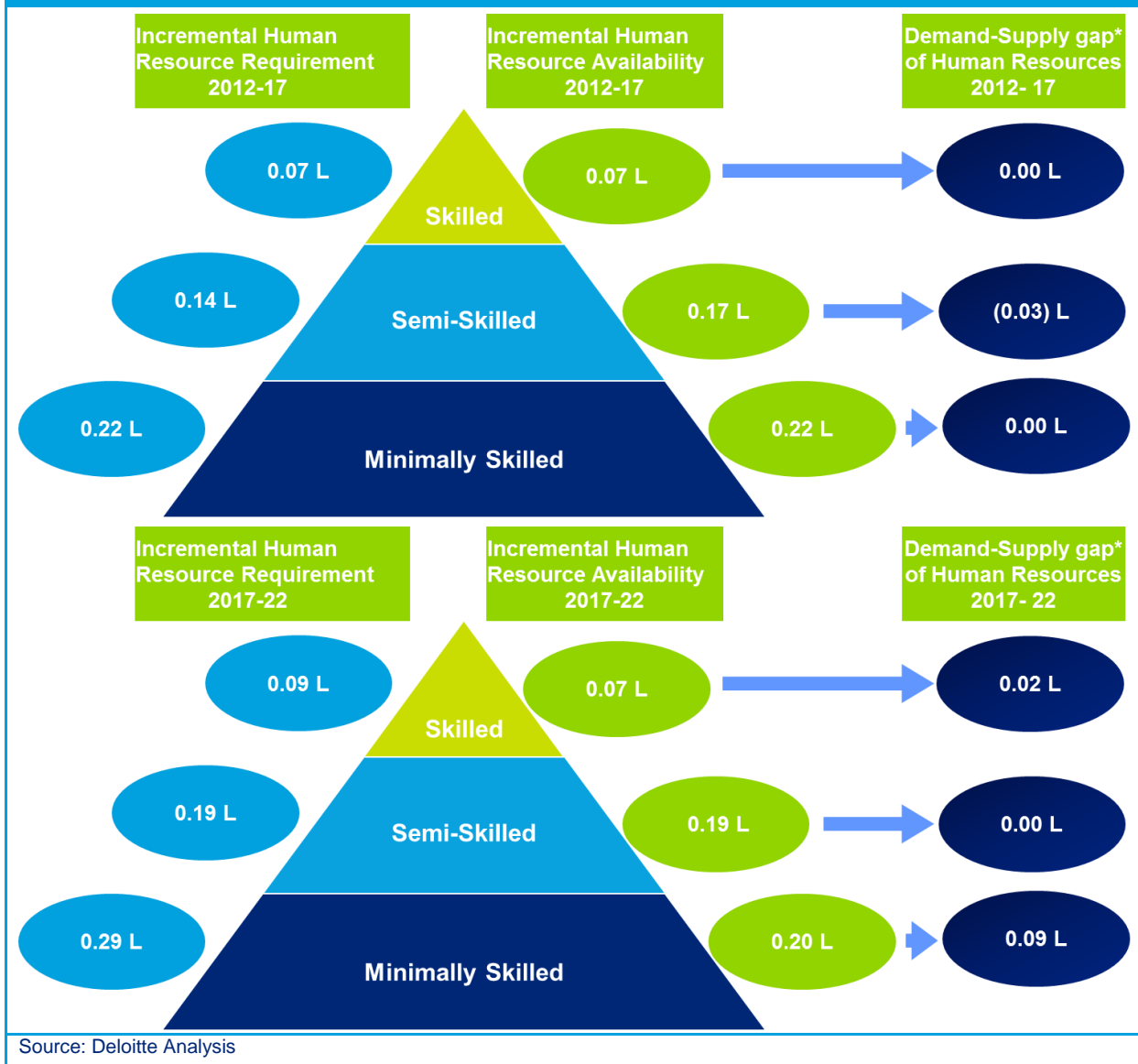
During the period 2012-22, the incremental human resource demand in Korea across all skill levels is estimated to be 1.00 lakh while the supply is projected to be 0.92 lakh indicating thus a deficit of around 0.08 lakh people (refer table below). There is estimated to be an excess demand across the skilled and minimally skilled segments with a surplus supply across semi-skilled segment.

Table 306: Projected Demand Supply gap ('00) by skill levels in Korea

#	District Skill Gap	2012-17				2017-22			
		Skilled	Semi-skilled	Min. Skilled	Total	Skilled	Semi-skilled	Min. Skilled	Total
1	Incremental HR Requirement (Demand)	69	141	218	428	90	191	294	576
2	Incremental HR Availability(Supply)	67	173	216	456	70	193	200	463
3	Demand-Supply Gap	1	(32)	2	(29)	20	(1)	94	112
	Overall Demand-Supply Gap				84				
Source: Deloitte Analysis									

During the period 2012-22, the incremental manpower demand supply gap of the district (across all sectors mentioned above) is expected to be a deficit of about 0.08 lakh people with the excess demand across the skilled and minimally skilled segments as shown in the adjoining figure.

Figure 331: Incremental Demand-Supply Gap (in Lakhs) , Korea



Some of the key trends observed on the demand-supply gap include

- ♦ The composition of the human resource demand supply gap over the two different time periods i.e. 2012-17 and 2017-22 is expected to change.
- ♦ There is likely to be an excess demand of skilled resources in the period 2017-22 owing to the presence of few educational institutes in the district. Even in the case of existing supply of workers in the skilled segment, it is pertinent to note that it does not imply industry demand for skills is being sufficiently met. The industry interactions have revealed employability linked skills as a key area of concern. Approximately 82% of the total skilled workforce in district is estimated to be from general degree courses having undergone no job/skill specific training. The changing landscape of the sector

including use of new technology and practices imply a need for reskilling and up skilling of the existing workers.

- ♦ In line with the rural-urban population distribution in the district (69% of the population residing in rural areas) and dominance of agriculture and mining & quarrying in employment in the district, the major contributor to the incremental supply is the minimally skilled segment. Moreover, the segment is also likely to experience the maximum shortage of workers in the district. This may result in some intra state migration of the surplus supply of minimally skilled workers from neighboring districts like Bilaspur, Surguja, Jashpur, Surajpur etc. to Korea in search of employment.

Qualitative Skill Gaps

The qualitative skill gaps that were highlighted during our primary interactions with industry at Korea are provided in the table below.

Table 307: Qualitative Skill Gaps

Sector	Level	Skill Gap
Mining & Quarrying	Managers/Engineer	<ul style="list-style-type: none"> ♦ Project Management and People Management Skills ♦ Knowledge of appropriate safety practices ♦ Knowledge of appropriate safety aspects
	Supervisors	<ul style="list-style-type: none"> ♦ Understanding of electrical and mechanical maintenance concepts ♦ Interpersonal and communication skills ♦ Understanding of product specifications ♦ Knowledge and implementation of safety practices ♦ Improve efficiency by avoiding wastage of resources
	Workmen/operators	<ul style="list-style-type: none"> ♦ Knowledge of basic machine operation ♦ Understanding of discipline, industrial rules, work related procedures etc. ♦ Ability to carry out basic troubleshoot in case of machine breakdown ♦ Practicing safety measures in the workplace ♦ Multi skilling
Agriculture	Tractor operator and mechanics/ Electricians/ Mechanics for repair & maintenance of agricultural tools & implements	<ul style="list-style-type: none"> ♦ Sufficient training to address tool & equipment failures like motor pump failure, gear damage, tyre puncture etc.
Building & Construction	Project Managers/Engineers	<ul style="list-style-type: none"> ♦ Knowledge of design and tools such as AutoCAD etc. ♦ Knowledge of green/eco-building design ♦ Project Management and People Management Skills ♦ Knowledge of appropriate safety practices ♦ Client Management skills (e.g. government officials for approvals, flat owners etc.)
	Supervisors: plumbing, electrical, carpentry, masonry, drilling	<ul style="list-style-type: none"> ♦ Skills in civil- operations of ready mix m/c, earth movers, etc. ♦ Basic repair and maintenance ♦ Exposure to right methodology in construction specific skills like lining, leveling etc. ♦ Site safety concepts and procedures ♦ Lack of finishing skills
	Workmen: plumbing,	<ul style="list-style-type: none"> ♦ Basic operating skills related to relevant category

Sector	Level	Skill Gap
	electrical works, carpentry, masonry, drilling	<ul style="list-style-type: none"> Improved/ better quality in finishing Site safety concepts and procedures Ability to understand & follow instructions/ manuals
Trade (Retail and Wholesale)	Store/Department Manager	<ul style="list-style-type: none"> Understanding of cross functional activities in the store esp. logistics, marketing and merchandising People management skills Vendor Management Lack of IT skills
	Billing Associate/ Accountants/ Computer operators	<ul style="list-style-type: none"> Knowledge of transaction processing software and cash management Knowledge of tally/accounting practice
	Sales/Customer Service personnel	<ul style="list-style-type: none"> Product specific knowledge Customer service and Inter personal skills Communication skills
Manufacturing (mineral/metal based)	Manager/Engineer	<ul style="list-style-type: none"> Project Management and People Management Skills Knowledge of appropriate safety practices Communication skills (Writing Skills)
	Supervisors	<ul style="list-style-type: none"> Interpersonal and communication skills Understanding of quality concepts Understanding of product specifications Knowledge and implementation of safety practices Improve efficiency by avoiding wastage of resources
	Workmen/operators	<ul style="list-style-type: none"> Understanding of discipline, industrial rules, work related procedures etc. Ability to carry out basic troubleshoot in case of machine breakdown Understanding of wastage or resources, to improve efficiency in working Practicing safety measures in the workplace Multi skilling

4.18.9 Recommendations

Future Growth Opportunities in Korea

In the context of the current economic profile and proposed investments of the district, the demand for human resources at various skill levels has been analyzed. The observations have been augmented by primary interactions with industry & industry association representatives in the district and government officials at the state and district level. Based on our analysis and considering factors like high growth and employment potential, priority sector for the state government, investment trends, etc., the following sectors/industries have been identified with future growth opportunities for employment and subsequently, skill development in Korea.

Table 308: Key Growth Sectors - Korea

#	Priority Sectors	Growth opportunities in skills development and employment
1	Mining & Quarrying	<ul style="list-style-type: none"> Mining & Quarrying activities currently contributes around 38% in the district economic profile and is estimated to grow at 9.7% over the decade (2012-22). Korea is rich in mineral deposits with the district being endowed with vast reserves of high-grade Coal. The chief coal belts are present in the Hasdeo basin. The major deposits of coal are found in Chirimiri, Jhagrakhand, Curcha, Katkona, Pandavpara and Sonhat, Nagar, Amritdhara, Gutra, Kilhari, Pathargaon and Damuj-Labji. Apart from the occurrence of coal, there are small deposits of limestone, fire clay and red oxide as well in the district. The total mineral revenue receipt from mining of minerals in the district in 2012-13 was Rs. 21797.95 lakhs (Major Mineral: Rs. 21482.41 Lakhs, Minor minerals: Rs. 312.19 lakhs and others: Rs. 3.35 lakhs) which was the 5th highest in the state³⁶². Mining & Quarrying sector is projected to be the largest employer in the district with approximately 45.8% of the total incremental demand for employment estimated to come from this sector over the period 2012-22. It is expected to provide incremental employment to around 45,943 incremental supply of workers over the decade.
2	Agriculture	<ul style="list-style-type: none"> Agriculture sector was providing employment to around 65% of the workers in the district in 2013 & is likely to be one of the major employers in the district over the decade (2012-22). Agriculture is anticipated to be the 2nd largest incremental employer in the district accounting for around 10.1% of the total incremental demand for manpower. It is expected to provide employment to around 10,102 additional workers over the decade.
3	Building and Construction	<ul style="list-style-type: none"> Construction is another major sector in Korea which is expected to grow at 12.6% over the decade (2012-22). The total budgeted value for ongoing building and construction activities (building and roadwork) in Korea for the year 2013-14 is allocated at Rs.153 crores³⁶³. Building and construction is projected to be the one of the major contributors in the incremental demand for manpower with approximately 9.7% of the total incremental demand for employment estimated to come from the sector.
4	Trade (Wholesale + Retail)	<ul style="list-style-type: none"> Trade (Wholesale+ Retail) is estimated to grow at around 8% in the period 2012-22. The booming mining activities in the district have facilitated the trade of minerals

³⁶² Directorate of Geology & Mining, Chhattisgarh

³⁶³ Chhattisgarh Public Works Department

#	Priority Sectors	Growth opportunities in skills development and employment
		<p>in the district resulting in increasing manpower demand in the sector.</p> <ul style="list-style-type: none"> It is anticipated to be the 4th largest employer of the district, providing employment to about 6% of the total incremental workers in Korea over the period 2012-22.
5	Manufacturing (mineral/metal based units)	<ul style="list-style-type: none"> Manufacturing units of mineral/metal based entities is projected to be one of the largest employers in the district with approximately 6% of the total incremental demand for employment estimated to come from this sector over the period 2012-22. Mineral based industries and metal based (steel fabrication) units are one of the key micro and small industries in the district in terms of employment as well as in terms of investments. The industrial area at Chainpur developed over an area of 2.42 ha with 13 plots established further promotes manufacturing units in the district³⁶⁴.
Source: Deloitte Analysis		

Considering the economic and skill landscape of Korea, the table below indicates the priority areas of focus for key stakeholders involved. These observations have been mainly derived from the growth opportunities identified above and through primary interactions with industry and industry association representatives in the district along with inputs from the students, training institutes and government.

Table 309: Key Recommendations for Stakeholders - Korea

Stakeholder	Priority Areas
NSDC	<p>NSDC can focus the efforts of its training partners in the key sectors identified in the district, viz.</p> <ul style="list-style-type: none"> Mining & Quarrying Agriculture Building and Construction Trade (Wholesale + Retail) Manufacturing – Mineral & metal based
Private training providers	<ul style="list-style-type: none"> There is a need for more courses in mining & quarrying owing to the likely demand for more trained workers in the sector. Additionally, courses in building and construction, agriculture, trade (wholesale + retail) can also be explored. The training institutes should facilitate more industry tie ups especially in high growth sectors to focus on up skilling the existing workers as per current industry trend & requirements. The private training providers should collaborate with the Directorate of Geology & Mining for program design and training delivery in the mining and quarrying sector. They should invite senior persons from the Directorate as guest lecturers in an effort to expose the trainees on the latest trends in the sector. There is a need for design and delivery of bridge courses with a focus on communication, language, basic IT and soft skills to make students job ready as highlighted in youth survey as well.
Government	<ul style="list-style-type: none"> The Government should promote and endorse vocational education as a practical alternative to formal education with emphasis on providing job ready courses. The CSSDA can set up awareness camps and temporary training centers within villages to provide skill development trainings to the youth. Inaccessibility to the training institutes was one of the major concerns highlighted by the rural youth in the district. Government can also establish VTP's nearby Chirimiri and Baikunthpur Coalfields

³⁶⁴ Brief Industrial profile of Korea district, MSME-DI, Raipur

Stakeholder	Priority Areas
	<p>focused on providing training in the mining and quarrying sectors. This would ensure proximity of the trained workers to the mining companies.</p> <ul style="list-style-type: none"> • The Directorate of Horticulture & Farm Forestry should arrange training and extension activities on areas like organic farming, soil conservation techniques; pest management etc. in the district owing to the dependence of the majority of the population on Agriculture. These training activities should be undertaken in tie-ups with the VTP's as well as NSDC partners operational in Korea. • Unavailability of information is one of the key concerns highlighted by around 45% of the youth surveyed in the district. For addressing the same, the regional DET offices and employment exchanges should collaborate together and arrange awareness campaigns in the district with focus on providing information on the VTP/Skill development institutes in the district along with the courses offered, registration process, course requirements, future job opportunities etc. It should be followed by at least one annual job fair in the district organized in collaboration with industry.
Industry	<ul style="list-style-type: none"> • More industry interactions should be initiated in the mining & quarrying, building & construction, agriculture and trade (wholesale + retail) sectors in the district. • Industry players should provide inputs in curriculum for ITIs and skill development institutes to improve the practical component of learning. • The major private players as well as public sector enterprises in the state should undertake and encourage vocational training as part of their CSR activities either by partnering with the Skill Development Institutes for training or providing funds/resources for the same.

4.19 Mahasamund

4.19.1 District Profile

Mahasamund district is located in the central-east part of Chhattisgarh. The district is a part of Raipur division. It is surrounded by Raigarh and Baloda Bazar on the north, Navapara and Bargarh of Orissa on the east, Gariaband on the south and Raipur on the west. It extends over an area of 4790 sq. Km, which is 3.5% of the total state area. The district is divided into 5 tehsils viz. Mahasamund, Bagbahara, Pithaura, Basna and Saraipali, 1145 villages, 491 Gram Panchayats and 5 Janpad Panchayats.³⁶⁵ Mahasamund city is the district headquarters. The district has a large number of temples.

Forests account for just 20.1% of the total geographical area of the district. The forest cover of Mahasamund is significantly lower than the state average & comprises of very dense forest (0.4%), moderately dense forest (55.6%) and open forest (44.0%)³⁶⁶. The district is rich in minerals like granite, quartz, limestone. Granite rocks can be found in the Bagbahara, Basna and Pithora region.³⁶⁷

Map 20: Mahasamund District

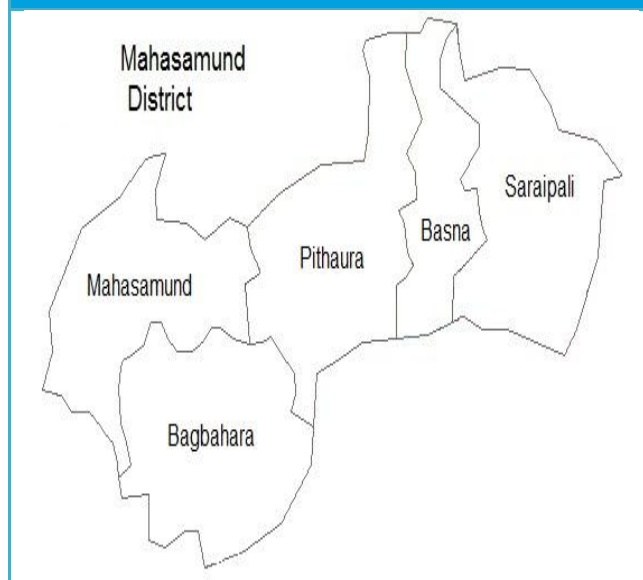


Table 310: Mahasamund District Profile

#	Indicator	Mahasamund	Chhattisgarh	% Share
1.	Area, in sq.km.	4790	135,190	3.5
2.	No. of sub-districts	5	149	3.4
3.	No. of inhabited villages	1112	20,126	5.5
4.	No. of households (in lakhs)	2.49	56.51	4.4
5.	Average Land holding size (Ha)	1.93	1.17	-
6.	Forest area cover	20.1%	41.18%	-
Source: Census 2011; Directorate of Economics and Statistics- Govt. of Chhattisgarh and Forest survey of India, Ministry of Environment & Forest, 2011				

³⁶⁵ Census 2011

³⁶⁶ Forest survey of India, Ministry of Environment & Forest, 2007

³⁶⁷ <http://mahasamund.gov.in/>

4.19.2 Demography

As per Census 2011, Mahasamund has a population of 10,32,275 of which 88.4% of the people reside in the rural areas. The decadal population growth in Mahasamund during 2001-2011 was 20%, which is higher than the population growth of 8.7% during the period 1991-2001. As of 2011, Mahasamund was the 9th most populous district of Chhattisgarh with around 4% share in state's population. While the population density is slightly higher than the state figure, the urban share of population is lower than the state share of urban population. About 61.9% of the population is in the working age population class group. The population density of the district is 216 which is higher the state average of 189. The per capita income is Rs 15,282 which is lower than the state average of Rs 28,263. The district ranks 21 amongst all the 27 districts of Chhattisgarh in terms of per capita income.

Table 311: Demographic Indicators of Mahasamund

Demography	Mahasamund	Chhattisgarh
Population (2011)	10,32,275	2,55,40,196
Population 15-24 (2011)	6,39,371	49,89,339
Decadal Population Growth Rate (2001-11)	20.0%	22.6%
Population density per sq. km (2011)	216	189
Percentage of Urban Population (2011)	11.6%	23.2%
Percentage of SC population (2011)	12.1%	12.8%
Percentage of ST population (2011)	27.1%	30.6%
Average household size	4.15	4.54
Sex Ratio (2011)	1018	991
Working age population (15-59) as a percentage of total population, %	61.9%	60.1%
Per Capita Income (2009)	Rs. 15282 ³⁶⁸	Rs.28263
Source: Census of India 2011, UNFPA Population Projection, Directorate of Economics and Statistics, Govt of Chhattisgarh		

Key Observations:

- ♦ Mahasamund is one of the most highly populated districts of Chhattisgarh in terms of population and ranked 9th in 2011.
- ♦ The sex ratio of Mahasamund at 1018 females per 1000 males is much higher than the state figure of 991.

³⁶⁸ At 2004-05 constant prices

4.19.3 Economic Profile

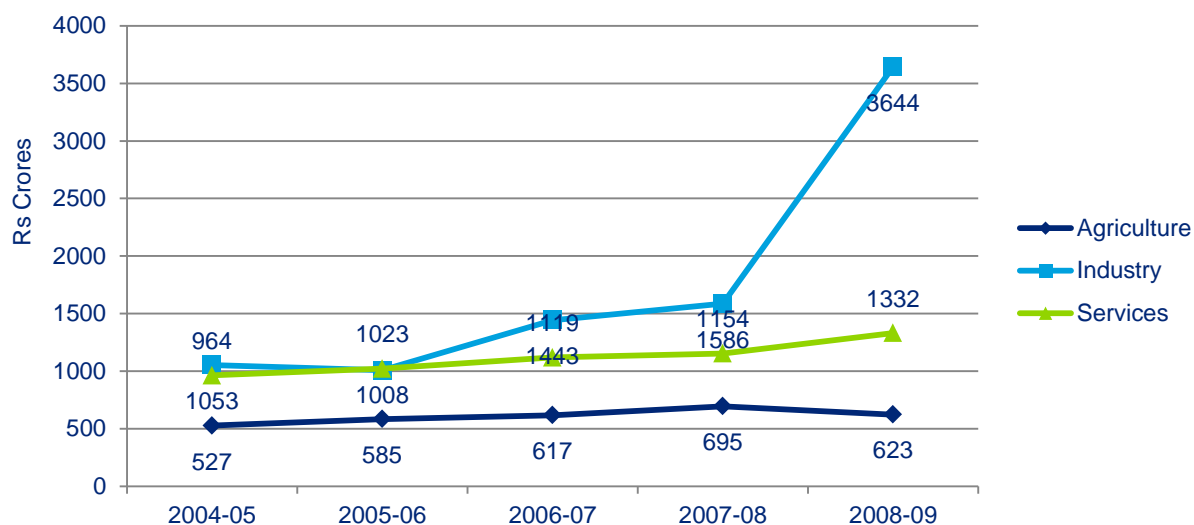
Gross District Domestic Product (GDDP) of Mahasamund in the period 2005-09 has grown at a CAGR of 6.9% which is much less than the state growth rate of 9.6% in the corresponding period. At Rs 1524.93 crores (2008-09), Mahasamund ranked 14th amongst all 27 districts of Chhattisgarh in terms of GDDP. The economy of Mahasamund contributed 2.2% to the Gross State Domestic Product.

The economy of Mahasamund district is pre-dominantly Services sector based, with Services sector's share in GDDP being 50.3% in 2008-09. This is followed by Agriculture sector, which shows a declining trend in the district economy with 25.8% share and Industry sector with a share of 23.9%, showing consistent growth in the GDDP.

However, in terms of absolute growth, it is the Industry sector that has shown the highest growth rate in this period with a CAGR of 15%, as compared to the Services (9.6%) and Agriculture (-2.1 %) sectors.

The sector-wise GDDP growth and distribution from 2005-09 is given in the figures below:

Figure 332: GDDP contribution of different sectors from 2005-09, Mahasamund



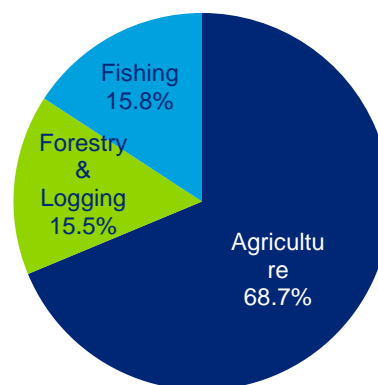
Source: Directorate of Economics and Statistics- Govt. of Chhattisgarh, 2004-05 base prices

Agriculture Sector

Agriculture, fishing and forestry and logging constitute the sub sectors of the Agriculture sector. The contribution of Agriculture sector to GDDP was 25.8% in 2008-09. Agriculture is the main contributor in the total output of the Agriculture sector contributing 68.7% in the year 2008-09.

The total cultivated land in the district is around 2.7 lakh hectares³⁶⁹. The Kodar dam on the Kodar Nalla River, a tributary of the Mahanadi-Godavari River, provides water for irrigation, thus benefitting the villages. Main cereals grown in the district are paddy, wheat and kodo-kutki. Paddy is grown mainly during the kharif season. The main pulses grown in the district are Urad, tiwra and moong. Mahasamund is a NFSM district for pulses. Besides these, oilseeds like Als, soyabean, groundnut, saraso and suraj-mukhi are also grown. Forestry & Logging, which contributed to 15.5% of the sectoral GDDP, is also an important source of livelihood for the people of the district. About one fifth of the district is covered by forests. The important non-specialized species available in the forests of Mahasamund are Kusum (Lac), Palash, Mahua, Kusum (Oil seed), Chironjee, Shahad, Baheda, Dhawai, Bel, Kalmegh, Bhelwa, Marorfalli, Nagarmotha.

Figure 333: Sub-sectoral break-up in Agriculture sector (2008-09), Mahasamund



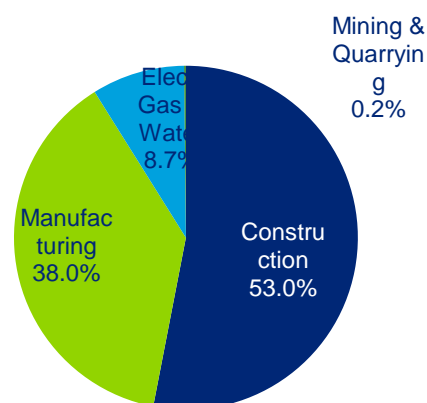
Source: Directorate of Economics and Statistics- Govt. of Chhattisgarh

Industry Sector

The Industry sector (mining & quarrying, manufacturing, construction, electricity, gas and water supply) contributed 23.9% to the GDDP in 2008-09. Construction is the major contributor within the Industry sector in 2008-09, with a sectoral share of 53%. A total budgeted value for ongoing building and construction activities (building and roadwork) in Mahasamund for the year 2013-14 pegged at Rs. 131 crores shows the current focus of the district on the sector³⁷⁰.

Manufacturing contributed 38% to the sectoral output in 2008-09. There are some large scale steel and power industries in the district like Balajee Power, Shivalik Power & steel. Kalindi Power etc. Besides there are large scale agro-based industries like D.B. Energy & Food, Singhal Forestry etc. There is an

Figure 334: Sub-sectoral break-up in Industry sector (2008-09), Mahasamund



Source: Directorate of Economics and Statistics- Govt. of Chhattisgarh, Deloitte Analysis

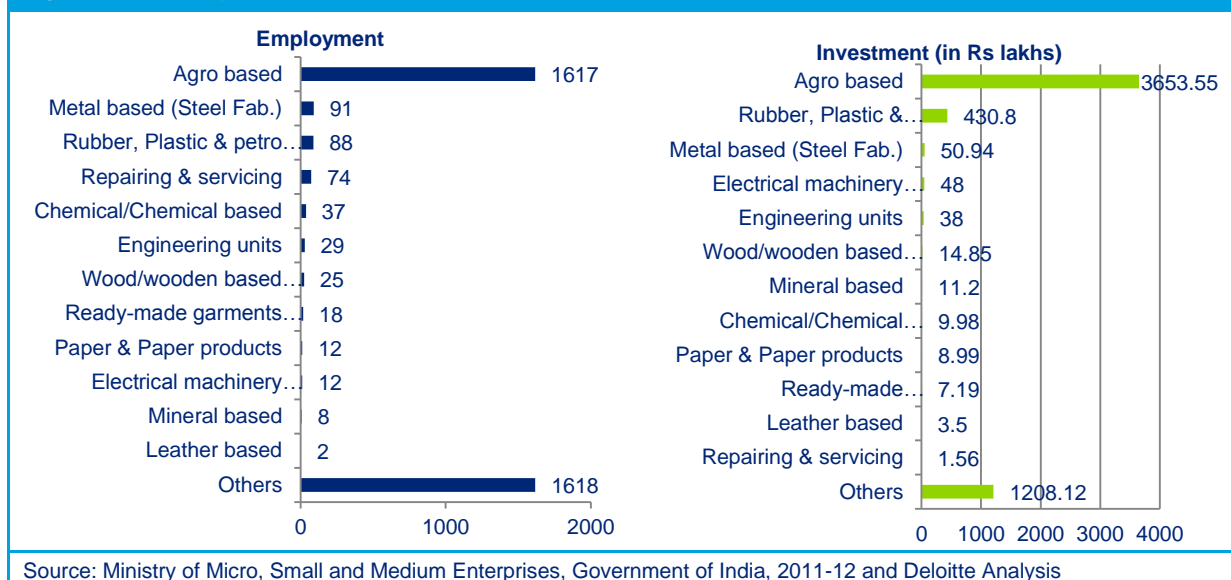
³⁶⁹ <http://mahasamund.gov.in/>

³⁷⁰ Public Works Department, Chhattisgarh

industrial area at Birkoni developed over an area of 96 ha with 22 units in production. Besides, an Integrated Infrastructure Development Centre (IIDC) has been developed at Birkoni

The investment in micro and small enterprises in the district is captured in the figure below. As evident from the figure, the key industries in the MSME sector mainly include agro based industries.

Figure 335: Employment and investment (in Rs lakhs) in micro and small enterprises, Mahasamund



Mahasamund has huge potential for mineral resources. However, the economic viability of extraction of these resources is yet to be established. The main minerals found in the region are Gold, Tin ore, Lead ore, Fluorite, Beryl, Granite and Lime Stone rocks. The revenue in the year 2012-13 from major minerals was Rs 11.5 lakhs while the minor minerals contributed to 357.7 lakhs³⁷¹. The potential mineral resources and the area where they are found are captured in the table below:

Table 312: Production of Minerals in Mahasamund

Minerals	Area
Gold and Tin	Villages of Dimauguda - Rahatikhole and the base of Mundha hills in Saraipali block
Lead ore	Bijarabhata - Salhetarai region of Basna block and Villages of Rampur of Pithora block.
Fluorite	Villages Cheurakuta, Makarmutta and Ghatkachhar of Saraipali block.
Beryl	Saraipali region.
Granite	Bagbahara, Pithora and Basna blocks
Lime stone	Villages Ghodari- Birkoni and adjoining areas of river Mahanadi

Source: Mahasamund District website (<http://mahasamund.gov.in/>)

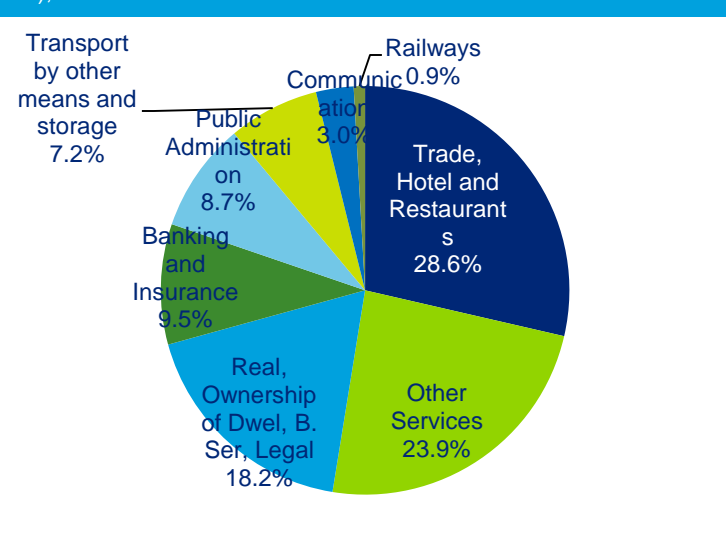
³⁷¹ Directorate of Geology & Mining, Chhattisgarh

Services Sector

The Services sector contributes to about half of the GDDP in the year 2008-09. The key contributor to the sector is trade, hotels and restaurants contributing approximately 28.6% in the Services sector GDDP followed by other services (23.9%), real estate (18.2%) and BFSI (9.5%). Sirpur is known for its archaeological monuments. Laxman Temple, Gandheshwar Temple, Buddha Vihar, Ram temple are some of the important tourist attractions in the city. Besides Shwet Ganga (Bamhni), Khallari Mata Temple, Ghaudhara (Daldali), Chandi Temple (Birkoni), Chandi temple (Guchhapali) are some of the other important tourist/ pilgrim places in the district. The forests of Mahasamund are rich in wild life with spotted deer, sambhar, swamp deer etc. The district is well connected to the rest of the state by rail as well as road networks. NH 6, which runs through 6 states from Hajira in Gujarat to Kolkata in West Bengal and NH-217, which connects Raipur in Chhattisgarh to Gopalpur in Orissa, passes through the district.

With a CAGR of about 16.7% and 19.8% over the period from 2004-2009, Communication and Banking & Insurance sectors respectively were among of the fastest growing sectors in the district, though their absolute sizes are small.

Figure 336: Percentage contribution to the Services sector (2008-09), Mahasamund



Source: Directorate of Economics and Statistics, Govt of Chhattisgarh

Key Observations:

- ♦ The economy of Mahasamund district is pre-dominantly Services sector based, with Services sector's share in GDDP being 50.3% in 2008-09. This is followed by Agriculture sector, which shows a declining trend in the district economy with 25.8% share and Industry sector with a share of 23.9%, showing consistent growth in the GDDP.
- ♦ However, in terms of absolute growth, it is the Industry sector that has shown the highest growth rate in this period with a CAGR of 15%, as compared to the Services (9.6%) and Agriculture (-2.1%) sectors.

4.19.4 Employment Profile

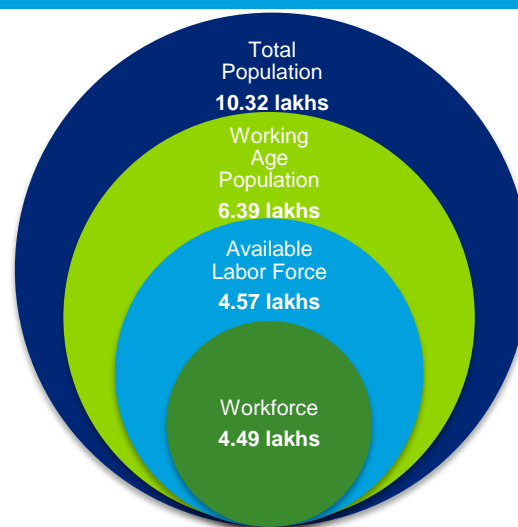
With a population of 10,32,275, Mahasamund accounted for 4% of the state's population.

The figure below depicts the estimated workforce in Mahasamund in the context of the population of the district. Out of the total population of 10.32 Lakhs, the working age population (between 15-59 age group) constitutes nearly 61.9%.

Based on the labor force participation rate and the worker participation rate estimates for the state, the available labour force is estimated to be 4.57 lakhs, and the workforce is estimated at 4.49 lakhs or nearly 70% of the working age population.

More than four-fifth of the workforce in the district is engaged in Agriculture sector in 2010-11, even though the sector contributes merely 25% to the GDDP. The Services sector which contributed to about 41% of the GDDP in the year 2011 is the second

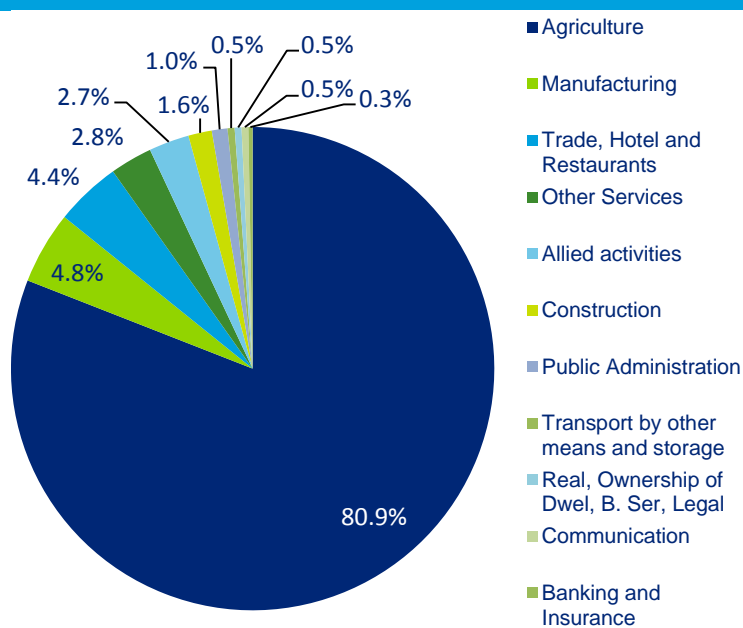
Figure 337: Total Workforce in Mahasamund (2011)



Source: Census 2011 and Deloitte Analysis

highest employer in the district employing around 10.2% of the workforce.

Figure 338: Sector wise employment in Mahasamund (2011)



Source: Census 2011 and Deloitte Analysis

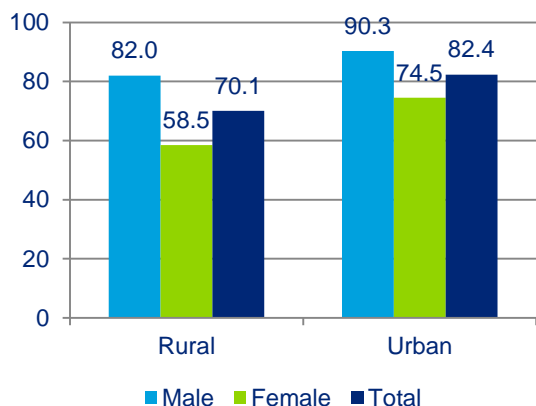
The sector-wise employment of Mahasamund for the year 2011 has been shown in the adjoining figure. Agriculture contributed to 80.9% of the total employment in the district. Manufacturing (4.8%) was the second highest employer in the district, while trade, hotels and restaurants employed 4.4% of the workforce. There exists disparity between the sector contribution to GDDP and the proportion of people employed for the Industry and Services sectors. Trade, hotels and restaurants, being the second highest contributor to GDDP (14.4%) employs only 4.4% of the workforce and Construction sector (12.7% of

GDDP) employs only 1.6% of workforce in the district.

4.19.5 Education Infrastructure

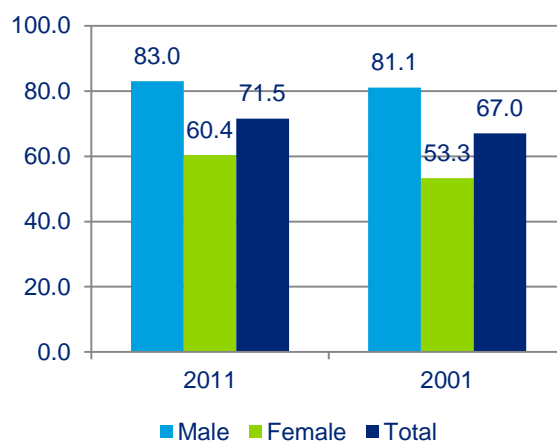
The literacy rate in Mahasamund has slightly improved from 67.0% in 2001 to 71.5% in 2011. It is comparable to the state's literacy rate of 70.3% in 2011, but slightly lower than the all-India literacy rate of 73%. In 2011, male and female literacy rates stood at 83.0% and 60.4% respectively, both figures improving as compared to the 2001 figures of 81.1% and 53.3% respectively.

Figure 339: Literacy rate 2011 (by residence), Mahasamund



Source: Census of India 2011

Figure 340: Literacy rate (by Gender), Mahasamund



Source: Census of India, 2001 and 2011

School Education

Mahasamund has 1451 primary schools, 603 upper primary schools, 83 secondary schools and 132 higher secondary schools. At 100%, Net enrolment ratio (NER) at the primary level is higher than the state average. NER at the upper primary level (70.2%) is higher than the state NER of 67.8%.

Table 313: Status of school education infrastructure in Mahasamund, 2013

#	Educational Statistics	Units in Mahasamund	Units in Chhattisgarh	% Share of District in State
1	Primary School	1451	35588	4.1%
2	Upper Primary School	603	16442	3.7%
3	Secondary School	83	2632	3.2%
4	Higher Secondary School	132	3548	3.7%
5	NER (Primary) (2010-11)	100%	98.0% ³⁷²	-
6	NER (Upper Primary) (2010-11)	70.2%	67.8%	-

Source: DISE 2012-13,

³⁷² Data is for 2008-09

Vocational Education

For vocational training, Mahasamund has a total of **6 ITIs in the district**, of which 5 are Government Industrial Training Institutes and 1 is a Private ITI. There is no woman ITI in Mahasamund. The total capacity of the ITIs in the district is 624. The capacity of the Govt ITIs is 588 and that of the Private ITI is 36. Computer Operator and Programming Assistant (COPA) and Electrician courses have the maximum units affiliated among ITIs.

The number of courses available in ITIs and their capacity are listed in the table below:

Table 314: ITIs in Mahasamund and their capacity

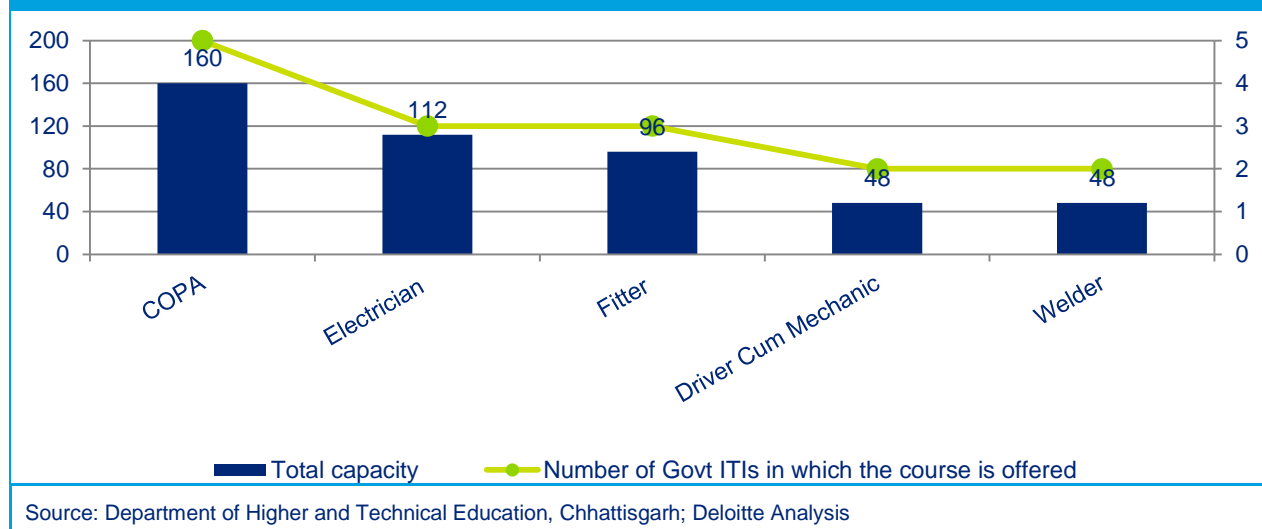
Name of ITI	Number of courses offered	Total Units affiliated	Total Capacity
Government Industrial Training Institute, Mahasamund	11	20	320
Government Mini ITI Basna	3	5	84
Government ITI Bagbahara	5	9	144
Government ITI Saraipali	1	1	20
Government ITI Pithaura	1	1	20
K.N.S. Shrimal Industrial Training Centre	2	2	36
Total	11*	38	624

Source: Department of Higher and Technical Education, Chhattisgarh; Deloitte Analysis

*Total number of different courses offered by ITI's in Mahasamund

The major courses offered in the ITIs and their capacity in Mahasamund is given in the figure below:

Figure 341: Major courses offered in ITIs and their capacity in Mahasamund



According to Chhattisgarh State Skill Development Mission Website, as of 12th March 20-14, Mahasamund has **70 Vocational Training Providers (VTPs)** under which there are 2182 registered beneficiaries.

The following table highlights the courses offered in vocational education, which currently meet requirements of about 12 sectors.

Table 315: Courses offered in vocational education, Mahasamund

Sector	ITI trades and Units affiliated	Courses Offered by VTPs
Auto and auto components Electronics and IT hardware Chemicals and pharmaceuticals	Electrician(7), Fitter(6), Mechanic(2), Welder(4)	Electrical, Electronics, Fabrication, Automotive Repairs
IT and ITES Tourism, hospitality and travel Organized retail Banking, financial services and insurance	Computer Operator and Programming Assistant(8), Information Technology & Electronic System Maintenance(2), Driver cum mechanic (3)	ICT, Soft skill
Textiles and clothing Food processing	Rice mill operator(1)	Textile sector
Building, construction and real estate Construction material and building hardware	Draughtsman(Civil) (2), Surveyor (2)	Construction
Unorganized sector (particular reference to agriculture, security, plumbing, domestic worker, foundry, etc.)	Mechanic (Radio & television) (1)	Wood Work, Animal Husbandry,
Source: CSSDA website		

The following table highlights the NSDC partners present in Mahasamund and the courses offered by them:

Table 316: NSDC partners present in Mahasamund

Name of Partner	Sectors in which course is offered	Courses offered
AISECT	IT and computer skills	<ul style="list-style-type: none"> ◆ Post graduate diploma in computer applications ◆ Diploma in computer applications ◆ Diploma in computer programming ◆ Applications ◆ Diploma in Computer Programming and Applications ◆ Certificate in Computerized Financial Accounting ◆ Certificate in computer applications
Source: NSDC		

Higher Education

The higher educational infrastructure in the district is not very promising. Out of a total 590 colleges in the state, 12 (2.0%) are in the district of Mahasamund. This is much lesser compared to the share of population of Mahasamund to the state (4.0%). Moreover, **10 out of the 12 colleges offer only general degree courses** (Arts, Science and Commerce), while the remaining two are teacher education colleges. All the colleges are affiliated to Pt. Ravi Shankar Shukla University, Raipur. Besides these 12 colleges, there is a Government polytechnic institute in Mahasamund. There is no medical, dental, technical or

management college in the district. The break-up of the number of higher education institutes in Mahasamund is given below.

Table 317: Number and Capacity of Higher Education infrastructure in Mahasamund

#	Colleges	Number
1	Arts, Science and Commerce	10
2	Teacher Education	2
	TOTAL	12

Key Observations:

- ♦ There are only 12 colleges in the district. Moreover more than 80% of the colleges offer general degree courses (Arts, Science and Commerce).
- ♦ There is a Government polytechnic institute in the district.
- ♦ There are 6 ITIs and 11 VTPs active in the district.

4.19.6 Youth Aspirations

Youth population constitutes the most important demographic section for a district from a skills development perspective. In the process of capturing the aspirations of the youth population in Kanker, focused group discussions were held with youth from educational institutions as well as residing in rural areas to understand their concerns, areas of interest and future dreams and goals. The FGD in Kanker was conducted at the Gram panchayat Bhavan, Macheva, Mahasamund. 24% of the respondents were in the age group 15-20 while 66% of them were between 21-25 years. Remaining 10% of the respondents were 26 years and above. In terms of gender representation, around 38% of the participants were females and 62% were males. The educational qualification of about 34% of the participants was high-school level or below. Around 52% of them were graduates and above with the remaining 14% participants being certificate holder.

The key observations about aspirations of the youth of the district are highlighted below.

Table 318: Youth Aspiration – Key Responses – Mahasamund

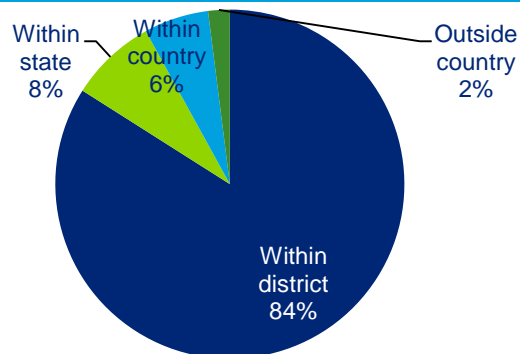
Parameters	Responses
Job Preference	Students want to be employed in Govt. sector as well as in private sector. Many of the respondents wanted to join the police. In general, the students prefer employment within the district.
Factors influencing selection of training institution	Institutions are selected on the basis of quality of education, placement and job opportunities, proximity to home, lack of other better alternative, consultation with guardian, lower fees, relevant subjects, etc.
Preferred Course	<ul style="list-style-type: none"> ♦ Women are more interested in self-employments by taking up courses like tailoring, sewing, computer training etc. ♦ Boys also expressed interest in trades of TV repair, electrical work etc. ♦ The students voiced their demands for greater job opportunities in the state and also the need for a more variety of courses.
Migrating for job	Most of the youth particularly females prefer jobs within the district. Very few proportion of youth prefer to migrate to other districts or out of the state in search of jobs.
Salary Expectations	Average monthly salary expectation of youth ranges between Rs 15,000-20,000/-
Areas of concern/ aspirations- Infrastructure	<p>Following views were expressed regarding infrastructure in educational institutions:</p> <ul style="list-style-type: none"> ♦ Youth reported poor quality of infrastructure in the institutes in terms of books in the library, building, toilets in the schools and colleges. ♦ Rural youth expressed a need for good transport system in order to facilitate better access to the institutes. ♦
Other concern	<ul style="list-style-type: none"> ♦ The youth also expressed their concerns for creating more employment opportunities in the state ♦ The inadequacy of good teachers in schools was also highlighted. ♦ There is no tie up in between industries and institution. ♦ People who are employed on contract basis want some regularization in their salaries ♦ Workers are not satisfied with man days they get from their owner. ♦ A very few of the respondents preferred to be self-employed.
Suggestions given by youth	<ul style="list-style-type: none"> ♦ The youth expect Govt. to take up initiatives to improve college infrastructure. ♦ There should be more courses, practical classes, resourceful, efficient and regular teachers available in the institutes. ♦ The Government should open new institutes with more trades.

A sample survey was conducted with youth at gram panchayat level & those coming out from various educational institutions (Government & private) to understand & capture their aspirations. The findings are presented below:

Job preference by youth

The majority of the youth we surveyed (84%) **prefer to get a job within their home district** as is evident from the adjacent figure. Approximately 8% of them preferred for job within their state of residence. The survey highlights the fact that around **92% of the youth surveyed wanted to get a job within Chhattisgarh** thus demanding and necessitating the creation of suitable positions and absorption capacity for them in the employment market. The survey reveals that not many youth are interested to migrate out of state in search of jobs.

Figure 342: Job Preference by Youth

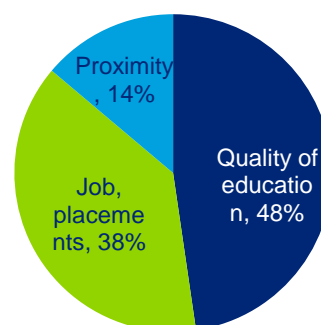


Source: Deloitte Analysis

Parameter for Institute Selection

A majority of the students surveyed (48%) at the gram panchayat level quoted the **quality of education** as their prime parameter while selection of an institute for higher education, followed by 38% of them who mentioned the **job and placement opportunities as the basis for their institute selection**. 14% of the students looked at the proximity of the institute to their home while selecting an institute for higher education.

Figure 343: Parameter for Choice of Institute



Source: Deloitte Analysis

Youth Perception Mapping

Youth perception mapping was undertaken to understand their level of satisfaction with either their current institute or their experience and feedback on the available educational infrastructure. The results are summarized below:

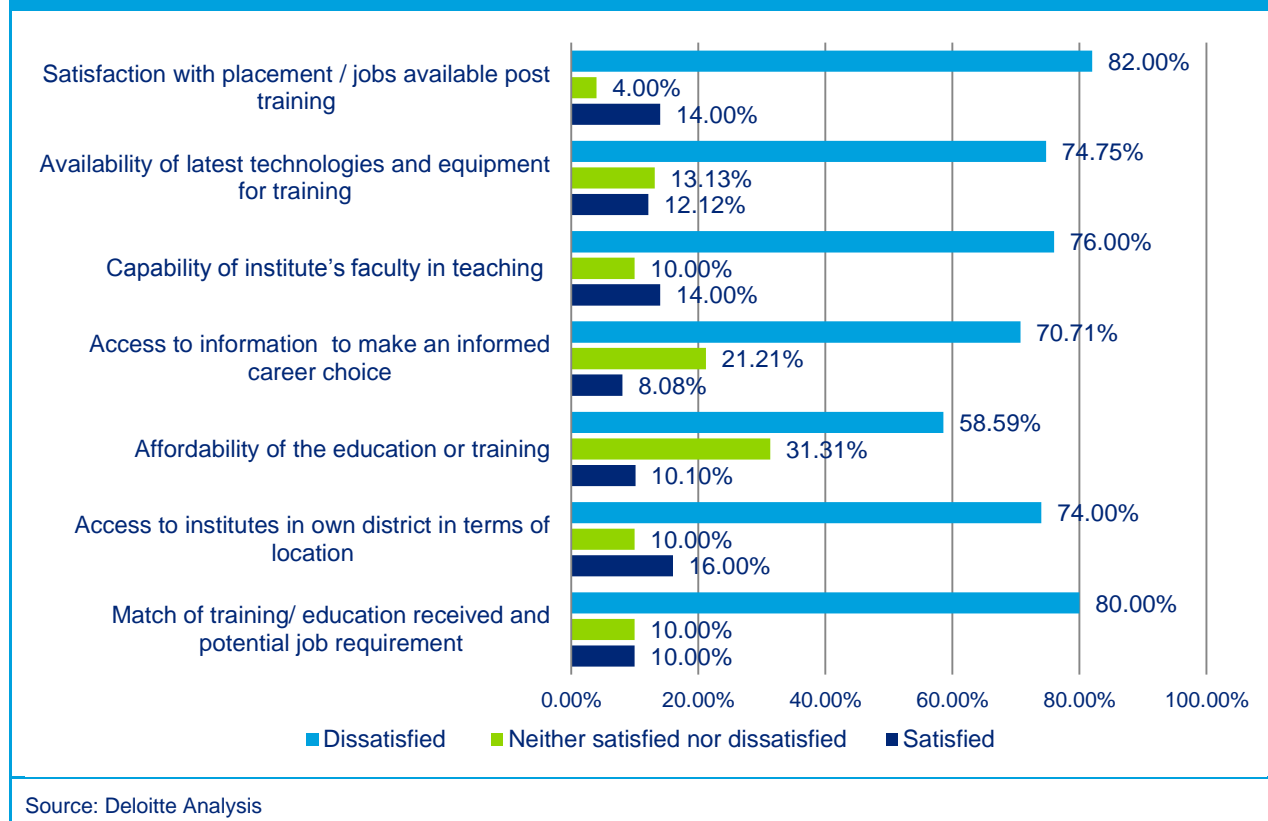
Low satisfaction with placement / jobs available post training: Around 14% of the students surveyed expressed their satisfaction with the placement opportunity available in the institute or jobs available post training. While around **82% of them felt the job opportunities available to them post training were not satisfactory**. They shared their expectation of being provided with a placement opportunity by the institute or facilitate a tie-up with nearby companies to give them an experience of hands on training.

Non-availability of latest technologies and equipment for training: **75% of the students surveyed expressed their dissatisfaction** with the availability of latest technology & equipment for training in the institute while only 12% of them shared their satisfaction with the same. They felt the lack of equipment as a major constraint for their knowledge enhancement and appropriate level of skill development. They demanded that the institutes to be adequately equipped and upgraded with latest technology.

Dissatisfaction with capability of institute's faculty in teaching: Around 76% of the students (especially the students from Government ITI's) feel the **quality of teaching by faculty** is not satisfactory and needs significant improvement. They demanded the number of faculty to be increased as per the

demand of the course and the **lack of quality faculty in the institute to be compensated by inviting visiting faculty from outside.**

Figure 344: Youth Perception Mapping, Mahasamund



Need for better access to information to make an informed career choice: Majority of the students were dissatisfied as far as access to information to make an informed career choice is concerned. Only 8% of the students vouch for accessibility to information to make an informed career choice, while around 71% of them felt that they did not get proper accessibility to information to make an informed career choice. This showcases the importance of having career counseling to the potential students either at the school level or at the respective vocational institutes.

Affordability as high a concern as quality and value for money in education or training: Majority of the students (around 58.6%) felt that the fees charged by the education/ training institute were a barrier for them. They raised their concern that the quality of the training programme offered should be commensurate with the fees charged.

Access to institutes is an issue in rural areas: 74% of the students surveyed expressed their dissatisfaction with the accessibility of the educational institutes in terms of location. They found the institute to be located in an inaccessible area in terms of the duration of location. Around 16% students felt the educational institutes to be accessible in terms of location. They voiced the government to support them by arranging suitable transport facility.

Dissatisfaction with the alignment of training/education received with job requirements: Approximately 80% of the students surveyed feel that the training/education currently provided by the

educational institutes in the district is not in alignment with the job requirements of the business with only 10% of them felt that the training/ education received by them matches the potential job requirements of the employers. This highlights the very important fact that the students did not believe the education or training received to be beneficial for them during their job.

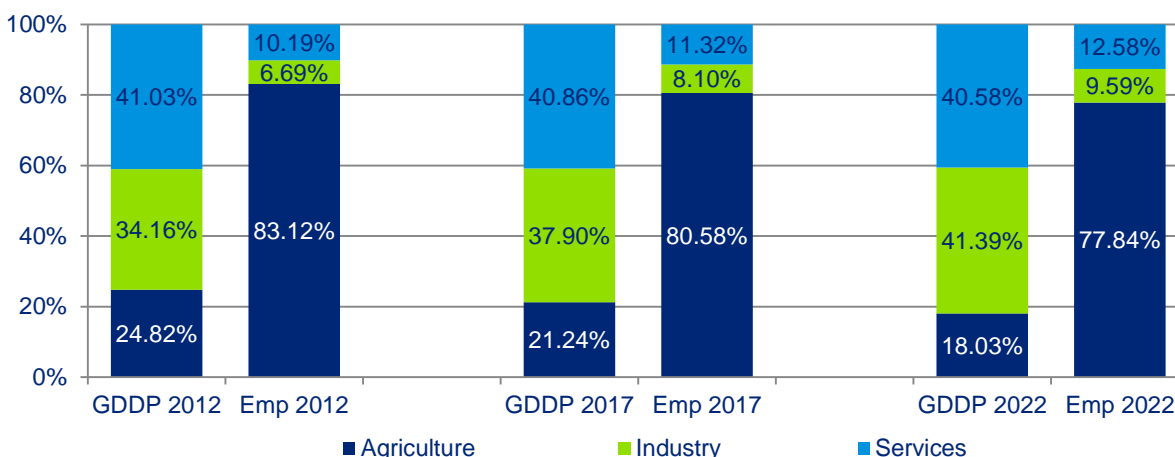
Key Observations:

- ♦ Govt. Jobs were preferred over private, the expected salary ranges from Rs. 15,000-20,000/- .Most of the students in the district prefer job within the district.
- ♦ Girls preferred self-employments by taking up courses like tailoring, sewing etc. Service sector was the most preferred sector.
- ♦ Among boys, computer related courses, TV repair, electricians was highlighted
- ♦ Need for updating course content & creating linkages for placement was strongly expressed
- ♦ Improving institute-industry interface to ensure better apprenticeship training was emphasized
- ♦ Need to address Infrastructure gaps - particularly updating the library and laboratory with latest computers, tools and equipment was expressed
- ♦ Youth expressed that the lack of quality faculty in the institute may be compensated by inviting visiting faculty from outside.
- ♦ Improving institute-industry interface to ensure better apprenticeship/internship and placement was emphasized along with the opening of a variety of courses in the institutes.

4.19.7 Skill Gap Assessment

The working age population (15-59) constituting 61.9% of total district population in 2011, is expected to increase to 65.9% by 2022. Demand for jobs is expected to increase leading to the need for job creation. Similarly, to reap this demographic dividend, supply of labour must be adequately skilled.

Figure 345: Comparison of Sectoral share in GDDP & Employment, Mahasamund



Source: Deloitte Analysis

The above figure also depicts the significant disparity in the structures of economy and employment in the district. Based on our analysis and primary interactions, the Agriculture sector is expected to be an important sector in terms of providing employment in the district and would account for the largest share of workforce over the decade. If the trends in employment continue, in 2021-22, the share of employment across the Agriculture sector is expected to decline to 77.8% as compared to 83.1% in 2012.

The Industry and Services sector employment share are estimated to increase to 9.6% and 12.6% respectively, as indicated in the table above. This trend appears to be in line with the national trend as well where people are moving out of the Agriculture sector and moving into the Industry and Services sectors respectively.

Incremental Human Resource Demand

As per the methodology, the total incremental demand for manpower in Mahasamund from 2012 to 2022 is expected to be 0.71 lakhs. Following table provides the break-up of the incremental demand for manpower in Mahasamund as per skill level required.

Table 319: Estimated Incremental Human Resource Demand ('00s) by Skill Level in Mahasamund

	2012-17	2017-22	Total
Skilled	128	62	114
Semi-Skilled	96	110	206
Minimally Skilled	195	199	394
Total	344	371	714

Source: Deloitte Analysis

Some of the key trends observed on the demand side include

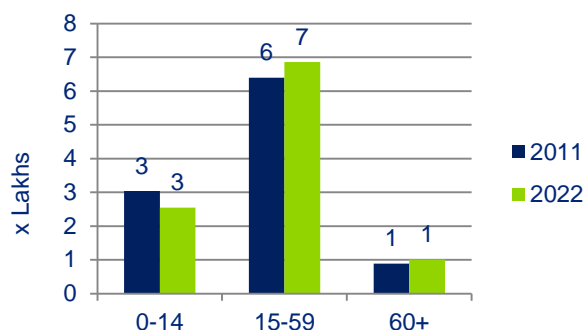
- ♦ *Agriculture and Allied Activities will be the largest incremental demand generating sector (34.5%) with demand largely in the minimally skilled level.*
- ♦ *Within the Secondary Sector, the greatest incremental demand on employment is expected to come from the building and construction (10.2%), Manufacturing (mineral/metal based) (8.3%) and food processing - primarily micro and small units (7.7%).*
- ♦ *In the Services sector, Trade (Retail & Wholesale) and BFSI are expected to provide higher demand in employment (around 12.1%).*
- ♦ *Analysis of formal and informal employment indicates that the incremental demand for manpower in formal sector would come mainly from Building and Construction, Manufacturing (mineral /metal based), BFSI, and Public Administration sectors.*
- ♦ *Majority of demand for incremental manpower in the informal sector is projected to come from Agriculture, Mining and Quarrying, Food Processing and Building & Construction sectors.*

Table 320: Incremental Human Resource Demand ('00) by Skill Level in Mahasamund- Key Sectors

#	Sector	2012-17				2017-22			
		Skilled	Semi-skilled	Minimally Skilled	Total	Skilled	Semi-skilled	Minimally Skilled	Total
1	Agriculture	4	13	111	128	4	12	103	119
2	Building & construction	5	13	15	32	6	16	18	40
3	Manufacturing (mineral/metal based)	6	17	6	28	6	19	6	32
4	Food processing	3	8	15	26	3	9	17	29
5	Trade (Retail + Wholesale)	3	11	8	23	3	11	8	23
6	Allied activities	1	2	18	21	1	2	19	22
7	Banking/ Insurance/ Finance	8	7	1	15	13	12	1	26
8	Others	24	26	22	71	26	29	25	81
Overall Incremental Demand						714			
Source: Deloitte Analysis									

Incremental Human Resource Supply

Figure 346: Age wise distribution of population, Mahasamund 2011 and 2022 (projected)



Source: Census 2011 and Deloitte Analysis

The population of Mahasamund is expected to increase from 10.33 lakhs in 2011 to 10.42 lakhs in 2022. The adjacent figure provides the current and projected population across various age groups. As per the analysis, the number and proportion of children in 0-14 age group is projected to fall by about 0.49 lakh children. This fall anticipated in the number of children in 0-14 age group will have important bearing on the government policies and initiatives regarding primary and secondary schooling, and on the demand for vocational and higher education in future. The number of persons in the working age group is expected to increase by 0.47 lakh during the same period. This represents a potential

demographic dividend for the district with a large increase in the employable population. On the other hand, it presents a huge challenge for the state to make available higher education and skill development facilities as well as ensure productive employment opportunities for its population.

As per the methodology, the incremental supply of manpower in Mahasamund over the decade (2012-2022) will be about 1.26 lakhs. Incremental manpower supply from various educational and vocational training institutes in the district can be further classified into skilled, semi-skilled and minimally skilled as per the educational qualifications.

Table 321: Estimated Incremental Human Resource Supply ('00s) by Skill Level in Mahasamund

	2012-17	2017-22	Total
Skilled	63	63	126
Semi-Skilled	206	208	414
Minimally Skilled	362	358	720
Total	631	629	1259

Source: Deloitte Analysis

Some of the key trends observed on the supply side include

- ♦ Proportion of incremental supply of minimally skilled manpower is 57.1%, compared to 32.9% of semi-skilled and 10% of skilled manpower (2012-22)
- ♦ Mahasamund has small number of higher educational institutes (2%) in state.
- ♦ Mahasamund has 6 out of 180 ITIs in the state having 3.3% of total capacity of all ITIs in the state
- ♦ The trend of migration is expected to be inward from other states and districts across all skill levels and would account to nearly 0.6% of the supply.

Incremental Demand Supply Gap

During the period 2012-22, the human resource demand of the district is expected to be 0.71 lakh people while the supply is projected to be 1.26 indicating thus a surplus of 0.55 lakh people (refer table below). There is assessed to be an excess supply across all the skill segments.

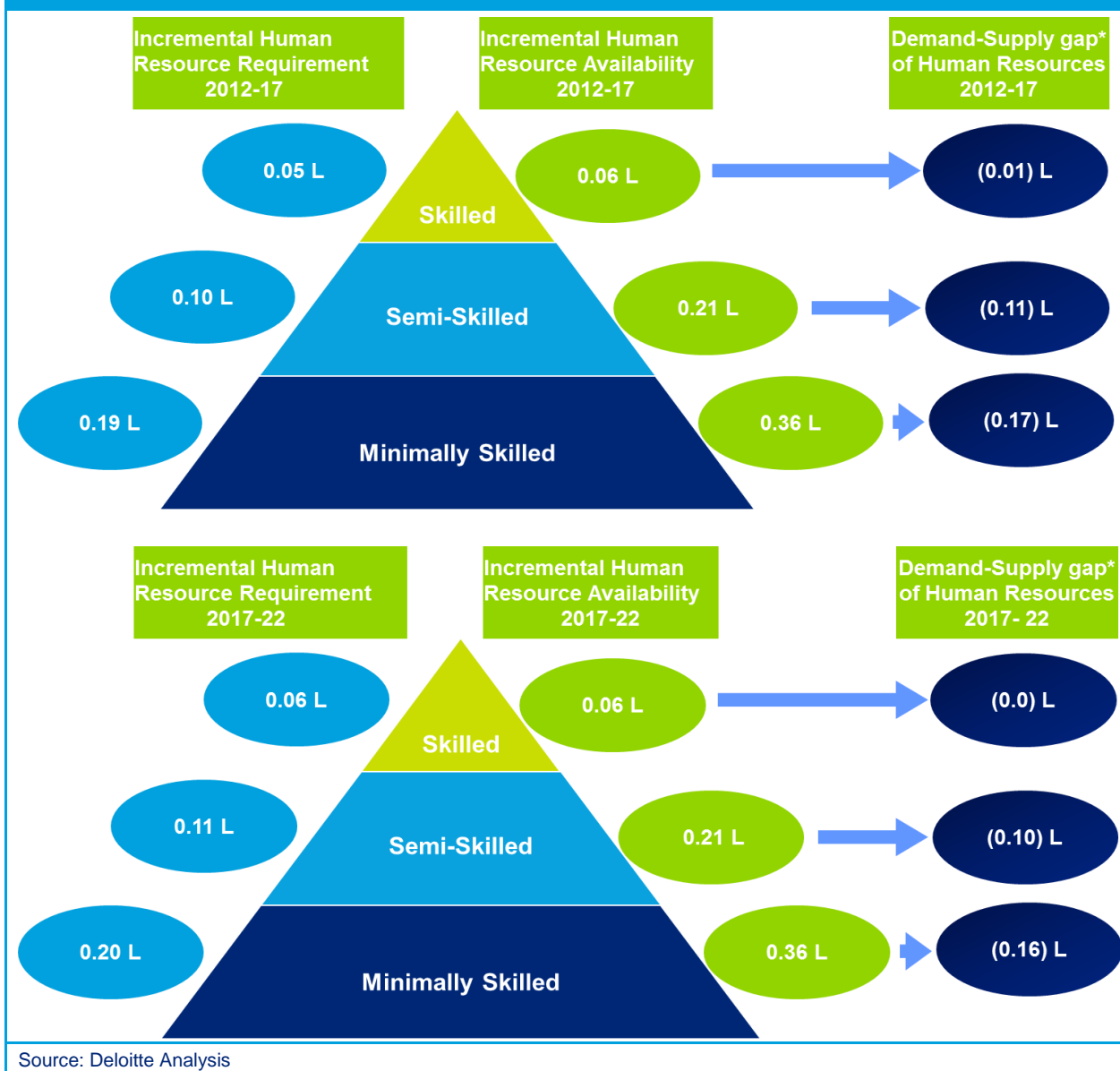
This means the rate of creation of employment in the district has to be augmented with suitable government initiatives in order to absorb the supply of workforce projected to enter the job market. Moreover, it also indicates a potential for skilling the semi-skilled and minimally skilled workforce and shift them to the more productive job roles assumed at the higher skill level in the neighbouring districts facing a shortage of workers.

Table 322: Projected Demand Supply gap ('00s) by skill levels in Mahasamund

#	District Skill Gap	2012-17				2017-22			
		Skilled	Semi-skilled	Min. Skilled	Total	Skilled	Semi-skilled	Min. Skilled	Total
1	Incremental HR Requirement (Demand)	52	9,6	195	344	62	110	199	371
2	Incremental HR Availability(Supply)	63	206	362	631	63	208	358	629
3	Demand-Supply Gap	(11)	(110)	(167)	(287)	(1)	(98)	(159)	(258)
Overall Demand-Supply Gap					(545)				
Source: Deloitte Analysis									

During the period 2012-22, the incremental manpower demand supply gap of the district (across all sectors mentioned above) is expected to be a surplus of about 0.55 lakh people with the excess supply across all skill categories i.e. skilled, semi-skilled and minimally skilled as shown in the following figure.

Figure 347: Incremental Demand-Supply Gap (in lakhs), Mahasamund



Some of the key trends observed on the demand-supply gap include

- The composition of the human resource demand supply gap over the two different time periods i.e. 2012-17 and 2017-22 is anticipated to remain the same.
- The excess supply in the skilled segment is expected to continue over the decade and decrease in future. This is in line with the low demand of skilled workers currently in the district which is expected to increase over the years. Due to the excess supply, skilled workers may need to seek job opportunities outside the district.

- The trend of excess supply is likely to continue in the semi-skilled segment across both the periods indicating greater conversion of the minimally skilled workforce into semi-skilled. Youth (especially males) in the district have indicated that they are open in seeking employment outside the district.
- Minimally skilled sector has the highest excess supply of labour over the years. However the skill gap is expected to decrease over the period with more people moving from the minimally skilled to semi-skilled and skilled sections due to government initiatives.
- Primary interactions have raised **employability & deficit in specific jobs/ skills** as concerns despite high overall supply in skilled and semi-skilled levels. These have been given in the qualitative skill gaps section below.

Qualitative Skill Gaps

The qualitative skill gaps that were highlighted during our primary interactions with Industry at Mahasamund are given in the table below.

Table 323: Qualitative Skill Gaps

Sector	Level	Skill Gap
Agriculture	Tractor operator and mechanics/ Electricians/ Mechanics for repair & maintenance of agricultural tools & implements	<ul style="list-style-type: none"> • Sufficient training to address tool & equipment failures like motor pump failure, gear damage, tyre puncture etc.
Building & construction	Project Managers/Engineers	<ul style="list-style-type: none"> • Knowledge of design and tools such as AutoCAD etc. • Knowledge of green/eco-building design • Project Management and People Management Skills • Knowledge of appropriate safety practices
	Supervisors: plumbing, electrical, carpentry, masonry, drilling	<ul style="list-style-type: none"> • Skills in civil- operations of ready mix m/c, earth movers, etc. • Basic repair and maintenance • Exposure to right methodology in construction specific skills like lining, leveling etc. • Site safety concepts and procedures
	Workmen: plumbing, electrical works, carpentry, masonry, drilling	<ul style="list-style-type: none"> • Basic operating skills related to relevant category • Improved/ better quality in finishing • Site safety concepts and procedures • Ability to understand & follow instructions/ manuals
Manufacturing (mineral/metal based)	Manager/Engineer	<ul style="list-style-type: none"> • Project Management and People Management Skills • Knowledge of appropriate safety practices
	Supervisors	<ul style="list-style-type: none"> • Interpersonal and communication skills • Understanding of quality concepts • Understanding of product specifications
	Workmen/operators	<ul style="list-style-type: none"> • Understanding of discipline, industrial rules, work related procedures etc. • Ability to carry out basic troubleshoot in case of machine breakdown
Food Processing	Procurement Managers	<ul style="list-style-type: none"> • Ability to forecast demand and undertake procurement accordingly

		<ul style="list-style-type: none"> Ability to locate and enter into relationships with farmers
	Plant Associates and operators	<ul style="list-style-type: none"> Limited basic engineering knowledge esp. on practical aspects, process knowledge e.g. distillation
	Material Handlers	<ul style="list-style-type: none"> Limited awareness on quality, health and hygiene awareness Limited basic computer skills including barcode reading
	Sales and marketing	<ul style="list-style-type: none"> Limited Communication skills, ability and willingness to understand the manufacturing process
	Machine Operators	<ul style="list-style-type: none"> Insufficient knowledge of machine operation and use Ability to understand & follow instructions/ manuals Limited ability to carry out basic repairs and troubleshooting
Trade (Retail + Wholesale)	Store/Department Manager	<ul style="list-style-type: none"> Understanding of cross functional activities in the store esp. logistics, marketing and merchandising People management skills Vendor Management
	Billing Associate/ Accountants/ Computer operators	<ul style="list-style-type: none"> Knowledge of transaction processing software and cash management Knowledge of tally/accounting practice
	Sales/Customer Service personnel	<ul style="list-style-type: none"> Product specific knowledge Customer service and Inter personal skills

4.19.8 Recommendations

Future Growth Opportunities in Mahasamund

In the context of the current economic profile and proposed investments of the district, the demand for human resources at various skill levels has been analyzed. The observations have been augmented by primary interactions with industry & industry association representatives in the district and government officials at the state and district level. Based on our analysis and considering factors like high growth and employment potential, priority sector for the state government, investment trends, etc., the following sectors/industries have been identified with future growth opportunities for employment and subsequently, skill development in Mahasamund.

Table 324: Key Growth Sectors - Mahasamund

#	Priority Sectors	Growth opportunities in skills development and employment
1.	Agriculture	<ul style="list-style-type: none"> Agriculture currently provides employment to around 79% of the workers in the district. It is anticipated to be the residual & largest incremental employer in the district accounting for around 34.5% of the total incremental demand for manpower. Cultivation of paddy along with production of different varieties of pulses and oilseeds is expected to employ a significant section of the workforce.
2.	Building & construction	<ul style="list-style-type: none"> Construction is another major contributor in the district economy which has share of more than half of the Industry sector contribution in 2013 and is expected to grow at around 16.9% (2012-22). The total budgeted value for ongoing building and construction activities (building and roadwork) in Mahasamund for the year 2013-14 is allocated at Rs. 131 crores. Building and construction is projected to be one of the chief employers in the district with approximately 10% of the total incremental demand for employment estimated to come from the sector.
3.	Manufacturing (mineral/metal based)	<ul style="list-style-type: none"> Manufacturing units which primarily includes mineral based and metal based units is projected to be the third largest employer in the district with approximately 8% of the total incremental demand for employment estimated to come from this sector over the period 2012-22. Some large scale steel and power industries in the district like Balajee Power, Shivalik Power & steel. Kalindi Power are anticipated to facilitate the growth of manufacturing units in the district.
4.	Food processing	<ul style="list-style-type: none"> Food processing sector is expected to contribute to 7.7% of the incremental demand in the district. The micro and small enterprises in the district are the major contributors of growth in this sector. In addition large scale agro-based industries like D.B. Energy & Food, Singhal Forestry etc. are anticipated to promote the growth of this sector in the district. The growth of employment (2012-22) in these sectors is rapid and incremental growth in demand is projected to be about 5,500workers.
5.	Trade (Retail + Wholesale)	<ul style="list-style-type: none"> Trade (Wholesale + Retail) is estimated to grow at around 11.9% in the period 2012-22. It is one of the largest employers of the district, contributing to about 6.4% of the total employment in the district. Due to the booming manufacturing industry, specially steel and power as well as growth in building and construction activities, trade of raw materials result in increasing manpower demand in this sector.
Source: Deloitte Analysis		

Considering the economic and skill landscape of Mahasamund, the table below indicates the priority areas of focus for key stakeholders involved. These observations have been mainly derived from the growth opportunities identified above and through primary interactions with industry and industry association representatives in the district along with inputs from the students, training institutes and government.

Table 325: Key Recommendations for Stakeholders – Mahasamund

Stakeholder	Priority Areas
NSDC	<p>NSDC can focus the efforts of its training partners in the key sectors identified in the district, viz.</p> <ul style="list-style-type: none"> ♦ Agriculture ♦ Building and Construction ♦ Manufacturing (primarily mineral/metal based) ♦ Manufacturing –Food Processing ♦ Trade (Wholesale + Retail)
Private training providers	<ul style="list-style-type: none"> ♦ There is a need for courses in building and construction owing to the demand for more trained workers in the sector. Additionally, courses in Agriculture, Manufacturing sector (primarily mineral/ metal based); trade (wholesale + retail) and food processing can also be explored. ♦ There is a need for design and delivery of bridge courses with a focus on communication, language, basic IT and soft skills to make students job ready. ♦ There is a need to strengthen/improve the current technology and facilities/equipment in the institute as indicated by around 75% of the youth surveyed in the district. ♦ The skill development institutes in the district should collaborate with the Directorate of Agriculture, Directorate of Horticulture, Directorate of Animal Husbandry and Directorate of Fisheries for providing training in Agriculture and Allied sectors.
Government	<ul style="list-style-type: none"> ♦ The Government should incentivize vocational education and subsequent certification for the workforce in the district in terms of wage revision. ♦ The Directorate of Horticulture & Farm Forestry should arrange training and extension activities on areas like organic farming, soil conservation techniques; pest management etc. in the district owing to the dependence of the majority of the population on Agriculture. These training activities should be undertaken in tie-ups with the VTP's as well as NSDC partners operational in Mahasamund. ♦ The Government should encourage more vocational training institutes on public private partnership mode in the district. ♦ Youth interactions indicated need for better working conditions and compensation for employees in the district. ♦ Soft Skills may be provided at high school level in government schools. ♦ The government should facilitate programs to encourage self- employment in the district. For this purpose, the MSME-DI, Raipur can arrange multiple product-cum-process oriented programs in the district like Entrepreneurship Skill Development programmes (ESDPs), Entrepreneurship Development Programmes (EDPs), Industrial Motivation Camps (IMCs), BSDPs etc. with an objective of developing entrepreneurial qualities and preparing new entrepreneurs to setup their own small enterprises.
Industry	<ul style="list-style-type: none"> ♦ More industry interactions should be initiated in the Manufacturing (primarily mineral/metal based), Building & Construction, Trade and food processing sectors in the district. ♦ Industry players should provide inputs in curriculum for ITIs and skill development institutes to improve the practical component of learning. Approximately 80% of the students surveyed in Mahasamund expressed their dissatisfaction with the alignment of the training/education currently provided by the educational institutes in the district with the potential job requirements of the employers.

Stakeholder	Priority Areas
	<ul style="list-style-type: none"> ♦ The large scale agro-based industries in the district like D.B. Energy & Food, Singhal Forestry etc. and large scale steel and power industries like Balajee Power, Shivalik Power & steel, Kalindi Power etc. should undertake and encourage vocational training in food processing and manufacturing sectors as a part of their CSR activities and partner with the Skill Development Institutes in terms of infrastructural support, guest/visiting faculty & On The Job training (OJT) etc.

4.20 Mungeli

4.20.1 District Profile

Mungeli district, located in the north-eastern part of Chhattisgarh was carved out of Bilaspur district on 1st Jan, 2012.

The district is a part of Bilaspur division in the north and falls under the fertile Chhattisgarh Plains agro climatic zone. It is bordered by Bilaspur in North and East, Bemetara and Baloda Bazar in the South and Kabirdham and Madhya Pradesh in the West. The district is divided into 3 tehsils for its administrative functioning viz. Mungeli, Pathariya and Lormi. Pathariya is a new tehsil created after Census 2001. Mungeli is the administrative headquarter of the district. Lormi and Mungeli are the assembly constituencies in the district. The district has a total of 4 statutory towns, 694 Villages, 1 Municipality and 3 Nagar Panchayats³⁷³. The district does not have any Census Town.

Map 21: Mungeli District



Forests account for around 30.16% of the total geographical area of the district³⁷⁴. The forest cover of Mungeli is lower than the state average & comprises of very dense forest (13.6%), moderately dense forest (65.1%) and open forest (21.4%)³⁷⁵. The district has a subtropical climate characterized by hot summer and monsoon rainfall followed by dry and cold winter season.

Table 326: Mungeli District Profile

#	Indicator	Mungeli	Chhattisgarh	% Share
1.	No. of sub-districts	3	149	2.0
2.	No. of villages	694	20126	3.4
3.	No. of households (Lakhs)	1.58	56.51	2.8
4.	Average Land holding size (Ha)	1.31*	1.17	-
5.	Forest area cover	30.16%*	41.18%	-

Source: Census 2011; Directorate of Economics and Statistics- Govt. of Chhattisgarh; State of Forest Report 2011-Forest survey of India; Deloitte Analysis

* Data is for undivided Mungeli (including Bilaspur)

³⁷³ Census 2011

³⁷⁴ State of Forest Report 2011-Forest survey of India (Data is for undivided Mungeli which includes Bilaspur)

³⁷⁵ ibid.

4.20.2 Demography

As per Census 2011, Mungeli has a total population of 7, 01,611 registering a 38.27³⁷⁶% population growth rate over the decade. The district shares approximately 2.8% of the state's population. Mungeli is one amongst the least populated districts of Chhattisgarh. As of 2011, Mungeli ranks 20th amongst all the districts of Chhattisgarh in terms of population. About 90.7% of the total population resides in rural areas with just 9.3% of them being urban residents.

Pathariya tehsil (58.28) in Mungeli is amongst the select tehsils in Chhattisgarh registering one of the highest total population growth rates and ranks 3rd in Chhattisgarh in terms of total population growth rate³⁷⁷. It is also amongst one of the highest rural population (percentage) growth tehsils in the state (45.95%)³⁷⁸. About 59.8% of the district's population is in the working age population group. The sex ratio of the district at around 976 females present per 1000 males is less compared to the state figure of 991 females per 1000 males³⁷⁹. The per capita income in the district is significantly lower than state average.

Table 327: Demographic Indicators of Mungeli

Demography	Mungeli	Chhattisgarh
Population (2011)	7,01,611	2,55,40,196
Population 15-24 (2011)	1,42,519	49,89,339
Decadal Population Growth Rate (2001-11)	38.27% ³⁸⁰	22.6%
Population density per sq. km (2011)	322*	189
Percentage of Urban Population (2011)	9.33%	23.2%
Percentage of SC population (2011)	20.8%*	12.8%
Percentage of ST population (2011)	18.7%*	30.6%
Average household size	4.43*	4.54
Sex Ratio (2011)	976	991
Working age population (15-59) as a percentage of total population, %	59.8%	62%
Per Capita Income (2009)	Rs.16,390 ³⁸¹	Rs.28,263
Source: Census of India 2011; UNFPA Population Projection; Directorate of Economics and Statistics- Govt. of Chhattisgarh; Deloitte Analysis		
* Data is for undivided Mungeli (including Bilaspur)		

Key Observations:

- ♦ Mungeli is one of the least populated districts of Chhattisgarh. As of 2011, Mungeli ranks 20 amongst all 27 districts of Chhattisgarh in terms of population.
- ♦ The district has predominantly a rural based demographic constitution with about 90.7% of the total population residing in rural areas and 9.3% of them being urban residents.

³⁷⁶ Deloitte Analysis

³⁷⁷ Census 2011

³⁷⁸ *ibid.*

³⁷⁹ Deloitte Analysis

³⁸⁰ *ibid.*

³⁸¹ At 2004-05 constant prices; Deloitte Analysis

4.20.3 Economic Profile

Mungeli was formed in the year 2012 after it got separated from Bilaspur. As per the analysis, Gross District Domestic Product (GDDP) of Mungeli in the period 2005-09 (estimated at constant price, 2004-05) has grown at a CAGR of 8.6% which is less than the state growth rate of 9.6% in the corresponding period.

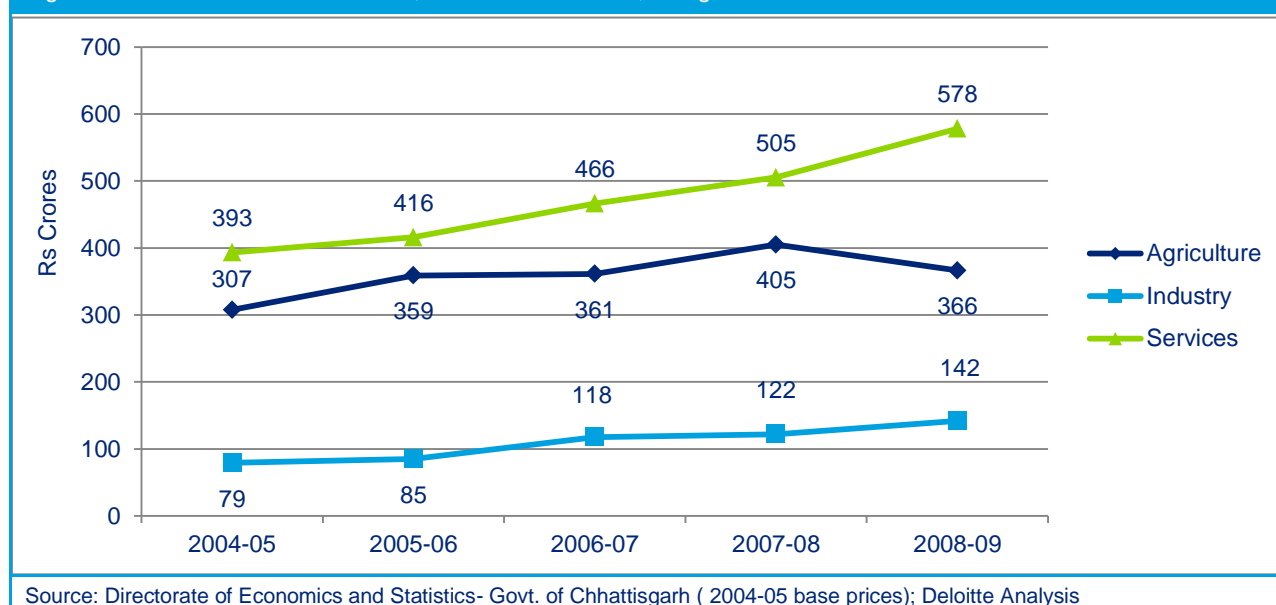
In 2008-09, Mungeli district contributed 1.57% in the state economic activity. At Rs. 1,086.28 cr., Mungeli ranked 20th in Chhattisgarh in terms of economic contribution amongst all 27 districts of Chhattisgarh.

The economy of Mungeli district is pre-dominantly Services sector based with its share in GDDP at 53.2% in 2008-09. This is followed by Agriculture sector which contributes around 33.7% in the district economic profile and Industry Sector contributing around 13.1%.

In terms of sector level contribution to GDDP, the Agriculture sector's contribution has declined from 39.4% in 2004-05 to 33.7% in 2008-09. The Industry sector's contribution increased over the period from 10.1% to 13.1% while the contribution of Services sector increased from 50.4% to 53.2%. Both Industry and Services sectors have grown consistently from over the period 2005-09. The Industry sector has shown the highest growth rate in the district over the period 2005-2009 with a CAGR of 15.7% followed by Services and Agriculture sectors which registered a CAGR of 10.1% and 4.5% respectively.

The sector-wise GDDP growth and distribution from 2005-09 is provided below:

Figure 348: Sectoral Share of GDDP, 2004-05 to 2008-09, Mungeli



Agriculture Sector

The contribution of Agriculture Sector (agriculture, forestry & logging and fishing) to the GDDP was 33.7% in 2008-09. The sector grew at a CAGR of 4.5% between 2004-05 & 2008-09. The overall contribution of the sector in the district economic profile decreased from 39.4% in 2004-05 to 33.7% in 2008-09.

Agriculture is the chief contributor in the total output of the Agriculture Sector in the district contributing around 72.2% in the year 2008-09 followed by forestry & logging (20.8%) and fishing (6.5%).

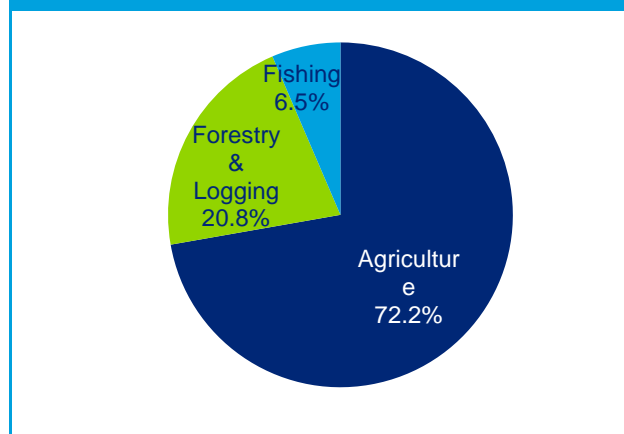
Forestry and logging activities also play an important role in the district economy. Mungeli falls under Bilaspur forest circle and the important non nationalized species available in the district are Imli, Mahulpatta, Mahua, Kusum, Karanj, Chironjee, Shahad, Aonla, Baheda, Dhawai, Bel, Baibiding, Kalmegh, Malkangni, Bhelwa, Marorfalli and Nagarmotha. The place is also known for cultivation of Karayal or Kalaunji.

Industry sector

The Industry sector (mining & quarrying, manufacturing, construction & electricity, gas and water supply) contributed 13.1% to the GDDP in 2008-09. The sector grew at a CAGR of 15.7% between 2004-05 & 2008-09. The overall contribution of the sector in the district economic profile increased from 10.1% in 2004-05 to 13.1% in 2008-09. The absolute contribution of the sector increased consistently over the same period.

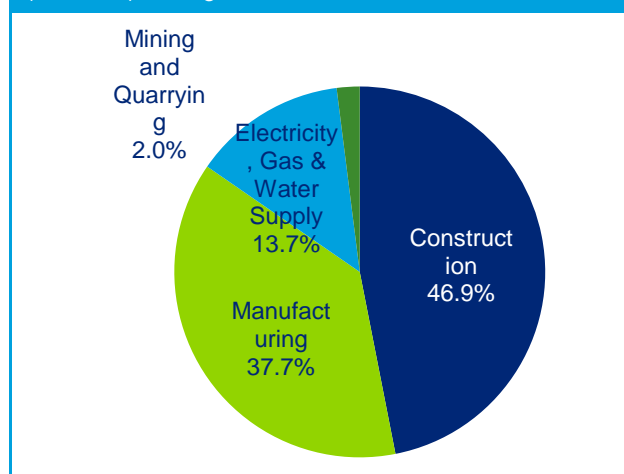
Construction sector is the major contributor within the Industry sector accounting for a sectoral share of around 47% followed by manufacturing (37.7%), electricity, gas & water supply (13.7%) and mining & quarrying (2.0%). The total budgeted value for ongoing building and construction activities (building and roadwork) in Mungeli for the year 2013-14 is allocated at Rs. 133 crores³⁸².

Figure 349: Sub-sectoral break-up of Agriculture Sector (2008-09), Mungeli



Source: Directorate of Economics and Statistics- Govt. of Chhattisgarh; Deloitte Analysis

Figure 350: Sub-sectoral break-up of Industry sector (2008-09), Mungeli



Source: Directorate of Economics and Statistics-Govt. of Chhattisgarh; Deloitte Analysis

³⁸² Chhattisgarh Public Works Department

Incidences of Limestone, Stone and Murram have been reported in the district. The total mineral revenue receipt from mining of minerals in the district in 2012-13 was Rs. 204.12 lakhs (Major minerals: Rs. 8.62, Minor minerals: Rs. 174.48 lakhs and others: Rs. 21.02 lakhs)³⁸³.

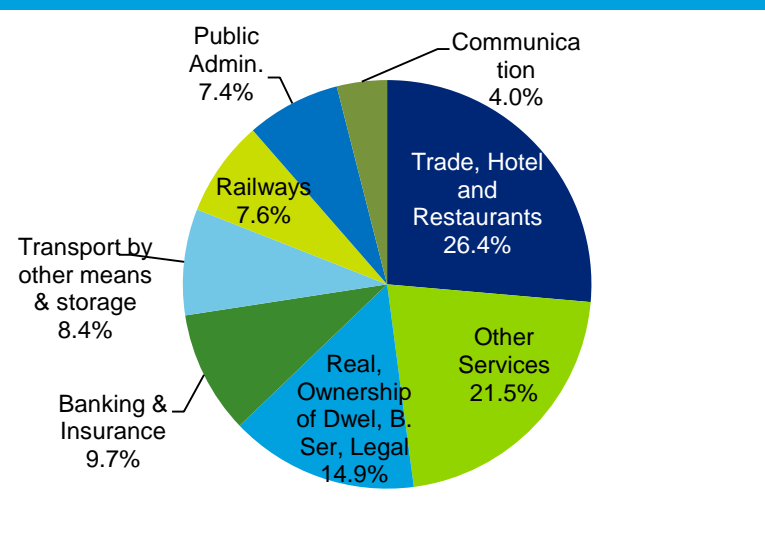
Services sector

The Services sector was the major contributor to the district economy in 2008-09 with a share of around 53.2% to the GDDP. The sector grew at a CAGR of 10.1% between the period 2004-05 & 2008-09.

Trade, Hotels & Restaurants was the chief contributor to the Services sector in Mungeli contributing approximately 26.4% to the district economy followed by Other Services (21.5%), Real Estate (14.9%), Banking and Insurance (9.7%) and Transport by other means & storage (8.4%).

The district headquarter is located at a distance of 40 kms. from Bilaspur. The nearest airport for Mungeli is the Raipur airport and the nearest railway station is the Bilaspur Junction Railway Station.

Figure 351: Sub-sectoral break-up of Services sector (2008-09), Mungeli



Source: Directorate of Economics and Statistics- Govt. of Chhattisgarh; Deloitte Analysis

Key Observations:

- ♦ The economy of Mungeli district is pre-dominantly Services sector based with the sectoral share in GDDP being 51.48% in 2008-09.
- ♦ In 2009, agriculture occupied the highest share in district economy at 15.3% followed by trade, hotels and restaurants (13.6%) and construction (12.8%). These sectors together accounted for around 42% of the total economic activity of Mungeli in 2009.

³⁸³ Directorate of Geology & Mining, Chhattisgarh

4.20.4 Employment Profile

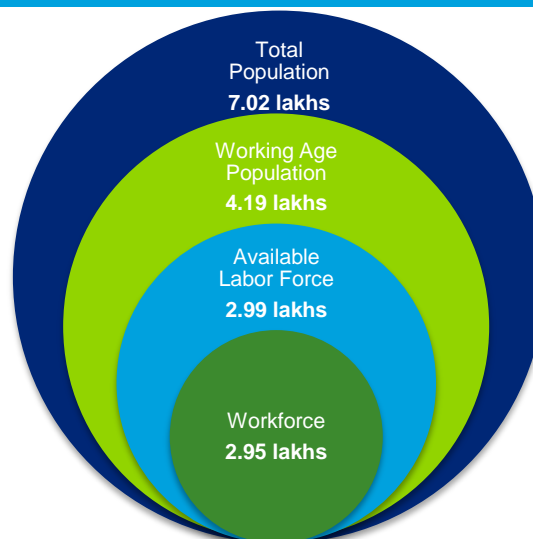
With a total population of 7.02 lakhs in the year 2011, Mungeli accounts for nearly 2.8% of the state's population.

The adjacent figure depicts the estimated workforce in Mungeli in the context of total population of the district.

Out of the total population of 7.02 lakhs in the district, the working age population (between 15-59 age group) is estimated at around 4.19 lakhs or nearly 59.76%.

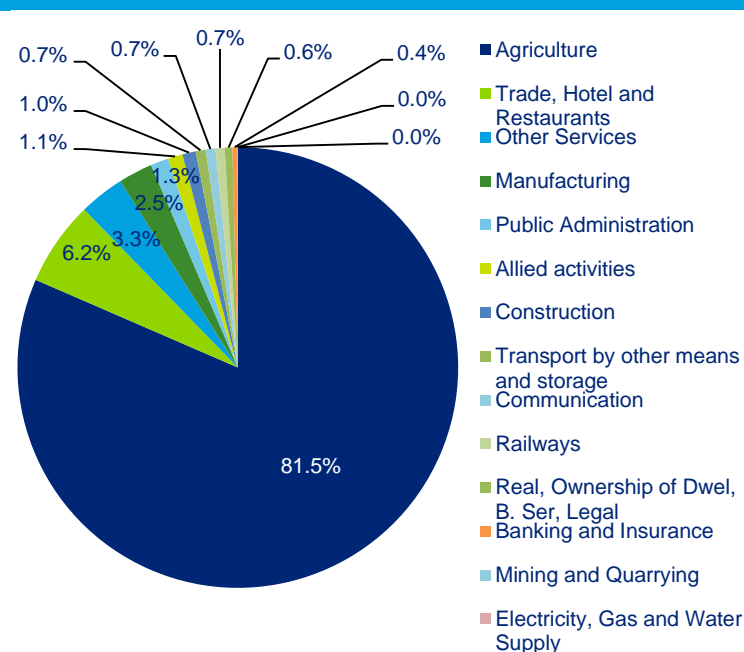
Based on the labor force participation rate and the worker participation rate estimates for the state, the available labor force is estimated to be 2.99 lakhs, and the workforce is estimated at 2.95 lakhs or nearly 70% of the working age population.

Figure 352: Total Workforce in Mungeli (2011)



Source: Census 2011 and Deloitte Analysis

Figure 353: Sector wise employment in Mungeli (2011)



Source: Census 2011 and Deloitte Analysis

Around 83% of the total workforce in the district is engaged in Agriculture sector in 2011, with the sector contributing around 31.6% to the GDDP. The Services sector which contributed about 51.9% of the GDDP in the year 2011 is the second highest employer in the district employing around 13.9% of the workforce.

The sector-wise employment of Mungeli for the year 2011 has been shown in the adjoining figure.

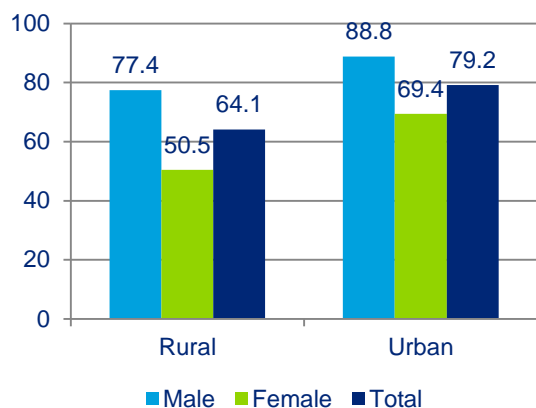
Agriculture accounted for around 81.5% of the total employment in the district followed by trade, hotels and restaurants (6.2%), other services (3.3%), manufacturing (2.5%), and public administration (1.3%).

The top five sectors in the district in terms of employment account for around 95% of the total employment of the available workforce in Mungeli in 2011.

4.20.5 Education Infrastructure

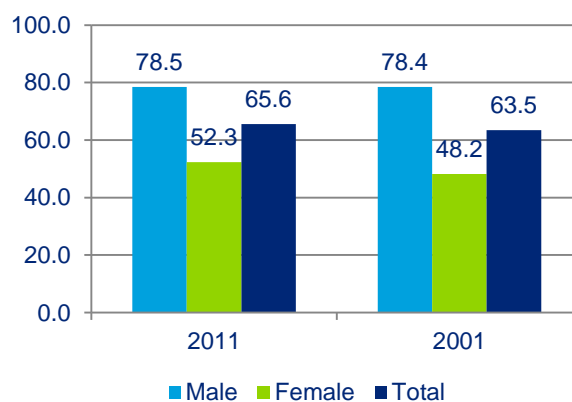
The literacy rate in Mungeli has improved over the decade from 63.51%³⁸⁴ in 2001 to 65.56%³⁸⁵ in 2011. The literacy rate of the district is much lower than the state's literacy rate of 71% in 2011 and the all-India literacy rate of 73%. In 2011, male and female literacy rates stood at 78.51% and 52.31% respectively³⁸⁶. Hence, there exists significant gap in the male and female literacy rates in the district.

Figure 354: Literacy rate 2011 (by residence), Mungeli



Source: Census of India 2011, Deloitte Analysis

Figure 355: Literacy rate (by Gender), Mungeli



Source: Census of India, 2001 and 2011, Deloitte Analysis

School Education

Mungeli has 781 primary schools, 342 upper primary schools, 93 secondary schools and 66 higher secondary schools. Net enrolment ratio (NER) at the upper primary level (71%)³⁸⁷ for the year 2010-11 is higher than the state NER of 67.8%.

Table 328: Status of school education infrastructure in Mungeli, 2013

#	Educational Statistics	Units in Mungeli	Units in Chhattisgarh	% Share of District in State
1	Primary School	781	35588	2.2%
2	Upper Primary School	342	16442	2.1%
3	Secondary School	93	2632	3.5%
4	Higher Secondary School	66	3548	1.9%
5	NER (Primary) (2010-11)	100%	98.0% ³⁸⁸	-
6	NER (Upper Primary) (2010-11)	71% ³⁸⁹	67.8%	-

Source: DISE 2012-13

³⁸⁴ Data is for undivided Mungeli (including Bilaspur)

³⁸⁵ Deloitte Analysis

³⁸⁶ Ibid.

³⁸⁷ Data is for undivided Mungeli (including Bilaspur)

³⁸⁸ Data is for 2008-09

³⁸⁹ Data is for undivided Mungeli (including Bilaspur)

Vocational Education

In terms of the provision of vocational education infrastructure, Mungeli has a total of 3 ITI's in the district out of which 2 are Government Industrial Training Institutes. Mungeli has no woman ITI. The total capacity of the ITIs in the district is 228. While the capacity of Govt. ITIs is 196, the capacity of the private ITIs in the district is 32. Electrician course has the maximum units affiliated among ITIs.

The number of courses available in ITIs and their capacity are listed in the table below.

Table 329: ITIs in Mungeli and their capacity

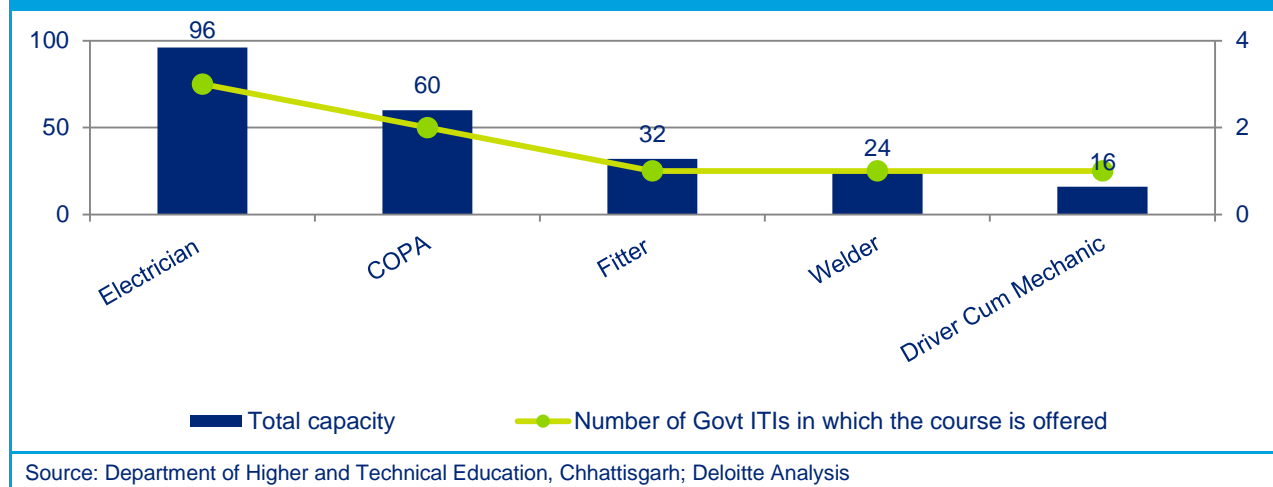
Name of ITI	Number of courses offered	Total Units affiliated	Total Capacity
Govt. ITI, Mungeli	5	9	144
Govt. ITI, Pathariya	2	3	52
Kshetriya Gramya Vikas I.T.C, Mungeli, Dist.-Bilaspur	1	2	32
Total	5*	14	228

Source: Department of Higher and Technical Education- Chhattisgarh; Deloitte Analysis

*Total number of different courses offered by ITI's in Mungeli

The courses offered in the ITIs and their capacity in Mungeli is given in the figure below:

Figure 356: Courses offered in ITIs and their capacity in Mungeli



According to Chhattisgarh State Skill Development Mission Website, as of 12th March, 2014, Mungeli has 12 Vocational Training Providers (VTPs) under which there are 542 registered beneficiaries.

The following table highlights the courses offered in vocational education, which currently meet requirements of about 6 sectors.

Table 330: Courses offered in vocational education, Mungeli

Sector	ITI trades and Units affiliated	Courses Offered by VTPs
Auto and auto components Electronics and IT hardware	Electrician(6), Fitter(2), Welder(2),	Electrical
IT and ITES Tourism, hospitality and travel Banking, financial services and insurance	Computer Operator and Programming Assistant(3), Driver cum Mechanic(1)	ICT, Soft skill
Textiles and clothing		Textile Sector, Sericulture
Source: CSSDA Website		

The following table highlights the NSDC partners present in Mungeli as of January 2014 and the courses offered by them. There is only one NSDC partner currently in the district offering courses in two sectors.

Table 331: NSDC partners present in Mungeli

Name of Partner	Sectors in which course is offered	Courses offered
AISECT	IT/Software	<ul style="list-style-type: none"> ♦ Diploma in Computer Applications (DCA) ♦ Post Graduate Diploma in Computer Applications (PGDCA) ♦ Diploma in Computer Programming and Applications (DCPA) ♦ Diploma in Computer Teachers Training (DCTT)
	ITES-BPO	<ul style="list-style-type: none"> ♦ Diploma in Computer Applications (DCA) ♦ Post Graduate Diploma in Computer Applications (PGDCA)
Source: NSDC		

Higher Education

The status of higher education in Mungeli is not very promising. Out of a total 590 colleges in the state, only 9 colleges are in the district of Mungeli indicating the district's share in the higher education space of the state at just 1.5%. This is lower in comparison to the share of population of Mungeli to the state (2.7%). There are no technical, management or medical colleges in the district. Out of the 9 colleges present in Mungeli, 8 offer only general degree courses.

Table 332: Number and Capacity of Higher Education infrastructure in Mungeli

#	Colleges	Number	Estimated Capacity*
1	Arts, Science and Commerce	8	-
2	Agriculture	1	48
	TOTAL	9	-
*Source: University/College websites			

Key Observations:

- ♦ There are 3 ITIs and 12 VTPs active in the district.
- ♦ The share of Mungeli in the higher education space of the state is just 1.5%.

4.20.6 Youth Aspirations

In the process of capturing the aspirations of the youth population in Mungeli, focused group discussions were held with youth from educational institutions as well as residing in rural areas to understand their concerns, areas of interest and future dreams and goals. The youth survey in Mungeli was conducted at the Government ITI, Mungeli; B.R. Sao G.M.H.S.S. and Pandey Computer. The FGD in Mungeli was conducted at the Gram Panchayat Bhavan, Limha, Mungeli. 57% of the respondents were in the age group 15-20 while 38% of them were between 21-25 years. Remaining 5% of the respondents were 26 years and above. In terms of gender representation, around 27% of the participants were females and 73% were males. The educational qualification of about 63% of the participants was high-school level or below. Around 28% of them were graduate and above with the remaining participants being diploma/certificate holder.

The key observations about aspirations of the youth in Mungeli have been captured below along the broad dimensions of education and employment.

Table 333: Youth Aspiration – Key Responses - Mungeli

Parameters	Responses
Job Preference	<ul style="list-style-type: none"> Students want to be employed in Govt. sector as well as in private sector. They also preferred regular/ salaried employment over self-employment.
Preferred Course	<ul style="list-style-type: none"> Training for job readiness appears to be most popular among the youth in the district. People want training in self-employment activities like goat rearing. Women are interested in job oriented courses like beauty parlor, tailoring and sewing, engineering, home science etc.
Migrating for job	<ul style="list-style-type: none"> Most of the youth particularly females prefer jobs within the district. Since the job prospect within the district is low, they are forced to migrate to cities.
Salary Expectations	Average monthly salary expectation of youth was Rs 20000 and above
Areas of concern/ aspirations- Infrastructure	<ul style="list-style-type: none"> Youth reported poor quality of infrastructure in the institutes in terms of books in the library, resourceful teachers, etc.
Areas of concern/ aspirations-Course Curriculum	<ul style="list-style-type: none"> Youths expressed that admission process should be modified, need for counseling before admission was emphasized. Youth feel that institutes should focus more on soft skill and language training besides technical know-how, and it is critical for getting a good job. Local industries should train people on apprenticeship/ intern model to improve job prospects.
Suggestions given by youth	<ul style="list-style-type: none"> The youth expect Govt. to take up initiatives to improve college infrastructure. Discipline in college should be maintained along with quality education. There should be more courses, practical classes, resourceful, efficient and regular teachers available in the institutes. Tie ups with institutes and industries should be in place for job opportunities. Counseling before taking admission in any course was suggested by the youth so that they can understand the proper career path. Number of seats should be increased in colleges.

A sample survey was conducted with youth at gram panchayat level & those coming out from various educational institutions (Government & private) to understand & capture their aspirations. The findings are presented below:

Job preference by youth

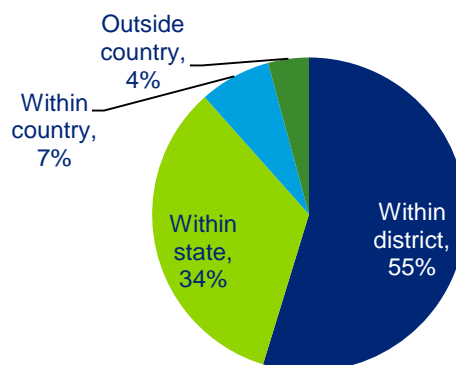
The majority of the youth surveyed (55%) **prefer to get a job within their home district** as provided in the adjacent figure. Approximately 34% of the respondents preferred job within Chhattisgarh. The survey highlights the fact that not many youth are interested to migrate out of the state in search of jobs. Around **89% of the respondents wanted to get a job within Chhattisgarh** thus demanding and necessitating the creation of suitable positions and absorption capacity for

Youth Perception Mapping

Youth perception mapping was undertaken to understand the level of satisfaction amongst the youth with either their current institute or their experience and feedback on the available educational infrastructure. The results are summarized below:

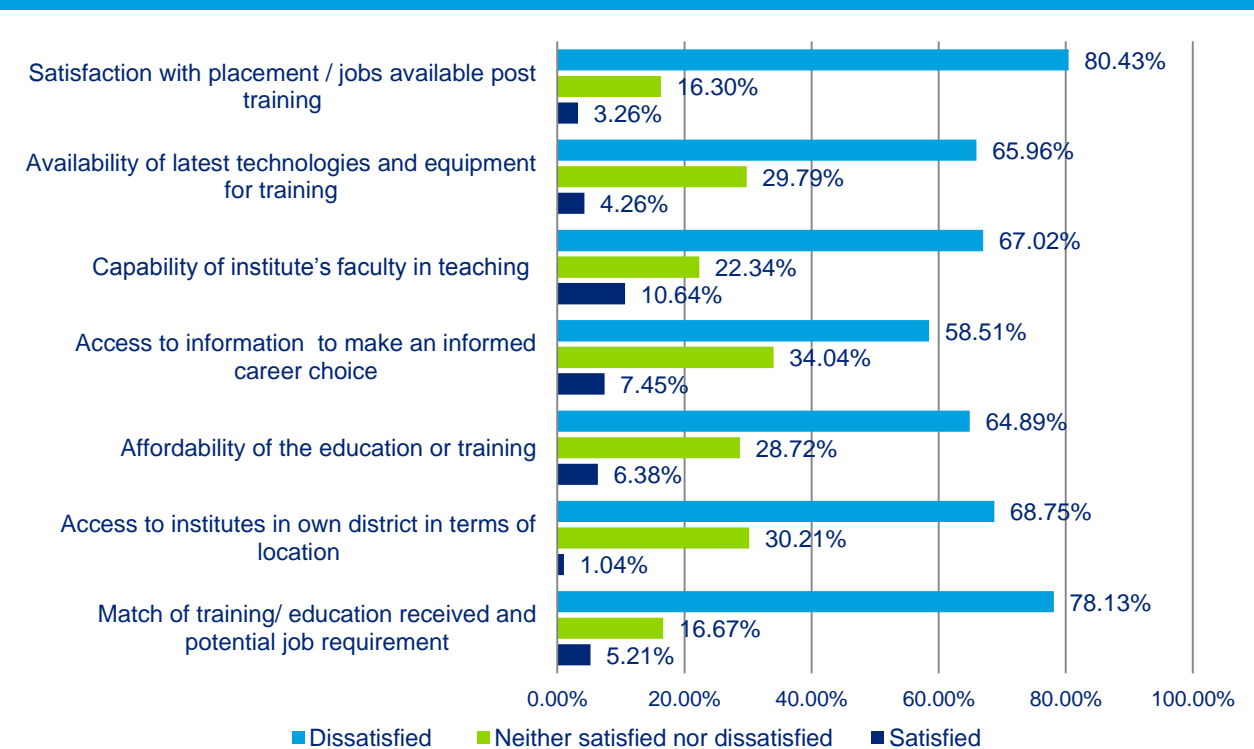
Low satisfaction with placement / jobs available post training: Around 80% of the students surveyed expressed their dissatisfaction with the placement opportunity being made available by their institutes as well as employment opportunities available post training. They feel there is a shortage of employment opportunities within the district which needs to be strengthened by the Government.

Figure 357: Job Preference by Youth



Source: Deloitte Analysis

Figure 358: Youth Perception Mapping, Mungeli



Source: Deloitte Analysis

Non-availability of latest technologies and equipment for training: 66% of the students surveyed expressed their dissatisfaction with the availability of latest technology & equipment for training in the institute while only 4% of them shared their satisfaction with the same. They felt the insufficient availability of equipment (especially computers) in the institute as a major constraint for their appropriate level of skill development.

Dissatisfaction with capability of institute's faculty in teaching: Around 67% of the students (especially the students from Government ITI's) surveyed feel the **quality of teaching by faculty** is not satisfactory and needs significant improvement.

Need for better access to information to make an informed career choice: Around 59% of the students disclosed that they did not get proper accessibility to information in order to make an informed career choice. The concern was raised more by the rural youth. The youth emphasized the importance of career counseling before making a choice for higher education.

Affordability of the education a concern for the students: Majority of the students surveyed (around 65%) felt that the fee charged by the education/ training institute is a concern for them. They emphasized the Government to arrange free training programs for bridge courses like soft skills, personality development and computer.

Access to institutes is an issue particularly in rural areas: 69% of the students surveyed felt the educational institutes to be inaccessible in terms of location and voiced the government to support them by arranging suitable transport facilities.

Dissatisfaction with the alignment of training/education received with job requirements: Approximately 78% of the students surveyed feel that the training/education currently provided by the educational institutes in the district is not in alignment with the potential job requirements of the employers. Thus, the survey brings out the need to make appropriate changes in the course curriculum to make the same application based and industry relevant.

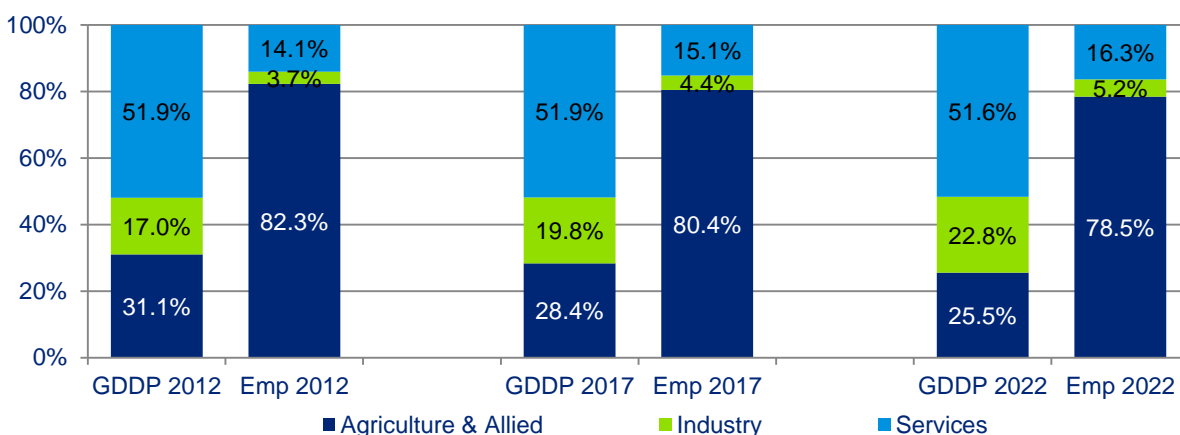
Key Observations:

- ◆ Students want to be employed in Govt. sector as well as in private sector. The expected salary is above Rs. 20000/-. Most students preferred jobs inside the district
- ◆ Girls preferred courses on beauty parlor, tailoring and sewing, engineering, home science etc.
- ◆ Need for updating course content & creating linkages for placement was strongly expressed
- ◆ Improving institute-industry interface to ensure better apprenticeship training was emphasized
- ◆ Need to address infrastructure gaps - particularly updating the library and laboratory with latest computers, tools and equipment was expressed.
- ◆ Expressed that the lack of quality faculty in the institute and the need to have resourceful teachers in the institutes.
- ◆ Youth are not aware about the different Government initiatives on skill development
- ◆ The need for career counseling prior to admissions was strongly expressed by the youth

4.20.7 Skill Gap Assessment

The working age population (15-59) constitutes 59.8% of the total district population in 2011 and is expected to increase to 63.5% by 2022.

Figure 359: Comparison of Sectoral share in GDDP & Employment, Mungeli



Source: Deloitte Analysis

Based on our analysis and primary interactions, the Agriculture sector is expected to play a significant role and will continue to be an important sector in terms of providing employment in the district. It currently accounts for the largest share of workforce and is anticipated to be the major employer in the district. If the trends in employment continue, in 2021-22, the share of employment across the Agriculture sector is expected to decline to 78.5% as compared to 82.3% in 2012.

The Industry and Services sector employment share are estimated to increase to 5.2% and 16.3% respectively, as indicated in the table above. This trend appears to be in line with the national trend as well where people are moving out of the Agriculture sector and moving into the Industry and Services sectors respectively.

Incremental Human Resource Demand

As per the methodology, the total incremental demand for manpower in Mungeli from 2012 to 2022 is expected to be around 0.55 lakh. Following table provides the break-up of the incremental demand for manpower in Mungeli as per the skill levels required.

Table 334: Estimated Incremental Human Resource Demand ('00) by Skill Level in Mungeli

	2012-17	2017-22	Total
Skilled	36	41	76
Semi-Skilled	63	70	133
Minimally Skilled	170	168	338
Total	268	278	546

Source: Deloitte Analysis

Some of the key trends observed on the demand side include

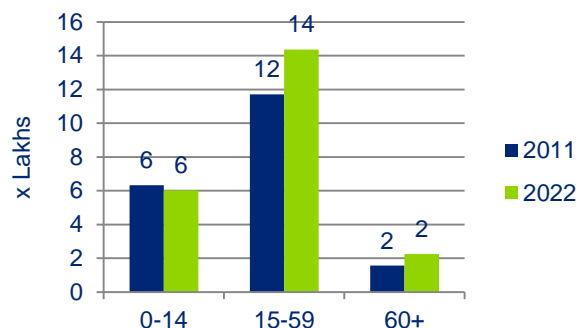
- ♦ *Agriculture will be the largest incremental demand generating sector (53.9%) with demand largely in the minimally skilled workers (87%).*
- ♦ *Within the industry sector, Building and Construction (5.8%) is expected to be the key growth sector in the district in terms of incremental demand for manpower.*
- ♦ *In the services sector, the sectors expected to employ maximum incremental demand for workforce include trade (7.4%), communication (4.3%), and BFSI (4.0%).*
- ♦ *Analysis of formal and informal employment indicates that the incremental demand for manpower in formal sector would come mainly from BFSI, Building and Construction, Public Administration, Education & Skill Development Services and Trade (Retail + Wholesale).*
- ♦ *Majority of demand for incremental manpower in the informal sector is projected to come from Agriculture, Trade (Retail + Wholesale), Communication, Manufacturing (mineral/metal based) and Building & Construction.*

Table 335: Incremental Human Resource Demand ('00) by Skill Level in Mungeli- Key Sectors

#	Key Sectors	2012-17				2017-22			
		Skilled	Semi-skilled	Minimally Skilled	Total	Skilled	Semi-skilled	Minimally Skilled	Total
1	Agriculture	5	15	131	151	4	14	125	144
2	Trade (Retail+ Wholesale)	3	10	7	20	3	10	7	20
3	Building & Construction	2	6	6	14	3	7	8	17
4	Communication	2	4	4	10	3	5	5	13
5	BFSI	4	4	0	9	7	6	1	13
6	Others	19	24	21	64	22	27	22	71
	Total	36	63	170	268	41	70	168	278
	Overall Incremental Demand				546				
Source: Deloitte Analysis									

Incremental Human Resource Supply

Figure 360: Age wise distribution of population, Mungeli - 2011 and 2022 (projected)



Source: Census 2011 and Deloitte Analysis

The population of Mungeli is expected to increase from 7.02 lakhs in 2011 to 8.09 lakhs in 2022.

The adjacent figure provides the current and projected population across various age groups. As per the analysis, the number of persons in the working age group is expected to increase by around 23% lakh during the period 2011-22. This represents a potential demographic dividend for the district with a large increase in the employable population. On the other hand, it presents a huge challenge for the state to make available higher education and skill development facilities as well as ensure productive employment opportunities for its working age population.

As per the methodology, the estimated incremental manpower supply over a period of 10 years (2012-22) will be around 0.96 lakh. Incremental manpower supply can be further classified into skilled, semi-skilled and minimally- skilled as per the education qualifications and estimated output of educational and vocational training institutes in the district.

Table 336: Estimated Incremental Human Resource Supply ('00) by Skill Level in Mungeli

	2012-17	2017-22	Total (2012-22)
Skilled	57	60	117
Semi-Skilled	61	64	124
Minimally Skilled	353	364	718
Total	471	488	959

Source: Deloitte Analysis

Some of the key trends observed on the supply side include

- Proportion of incremental supply of minimally skilled manpower is 74.8%, compared to 13% of semi-skilled and 12.2% of skilled manpower (2012-22)
- Mungeli has only 9 out of 590 colleges in the state indicating the district's share in the higher education space of the state at just 1.5%. Owing to the lesser presence of the colleges in the district, the proportion of skilled workers in the total workforce in the district is anticipated to be the least (12%) and likely to remain constant over the decade.
- The supply of semi-skilled workforce in the district is estimated to increase over the two time periods which are in-line with the current focus of government in improving the skill development space of the state.
- Impact of Migration is expected to be inward from other states and districts primarily across minimally skilled category and accounts for around 1.6% of the total supply in the district.

Incremental Demand Supply Gap

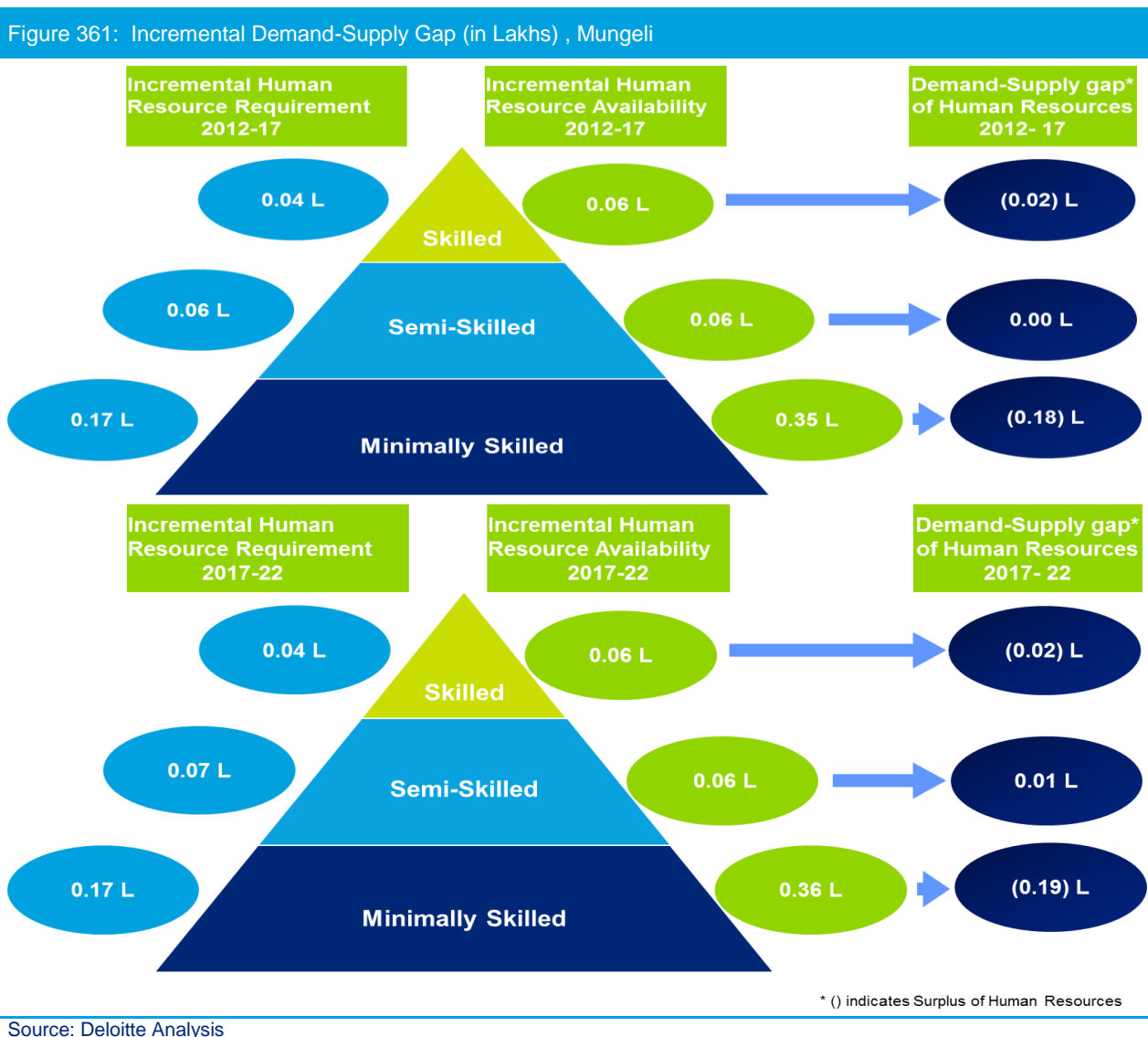
During the period 2012-22, the incremental human resource demand in Mungeli across all skill levels is estimated to be 0.55 lakh while the supply is projected to be 0.96 lakh indicating thus a surplus of 0.41 lakh people (refer table below). There is estimated to be an excess demand across skilled and minimally

skilled segments while there is an excess supply over the semi-skilled segment. This indicates a potential for skilling & shifting semi-skilled workforce into more productive job roles assumed at skilled segment.

Table 337: Projected Demand Supply gap ('00) by skill levels in Mungeli

#	District Skill Gap	2012-17				2017-22			
		Skilled	Semi-skilled	Min. Skilled	Total	Skilled	Semi-skilled	Min. Skilled	Total
1	Incremental HR Requirement (Demand)	36	63	170	268	41	70	168	278
2	Incremental HR Availability(Supply)	57	61	353	471	60	64	364	488
3	Demand-Supply Gap	(21)	2	(183)	(202)	(19)	6	(197)	(210)
Overall Demand- Supply Gap					(413)				
Source: Deloitte Analysis									

During the period 2012-22, the incremental manpower demand supply gap of the district (across all sectors mentioned above) is expected to be about 0.41 lakh people with the excess supply across the semi- skilled segment as shown in the following figure.



Some of the key trends observed on the supply side include

- ♦ The composition of the human resource demand supply gap over the two different time periods i.e. 2012-17 and 2017-22 is expected to shift.
- ♦ In line with the rural-urban population distribution in the district (90.7% of the population residing in rural areas) and dominance of agriculture in employment in the district, the major contributor to the incremental supply is the minimally skilled segment which is in excess in the district and requires skilling and training programs to shift to the more productive employment opportunities assumed at the semi-skilled and skilled segments. This may also result in some intra state migration in search of employment.

- ♦ *Even in the case of excess supply in the skilled segment, it is pertinent to note that it does not imply industry demand for skills is being sufficiently met. Approximately 87% of the total skilled workforce is estimated to be from general degree courses having undergone no job/skill specific training where on the other hand employability linked skills have emerged as a key area of concern among industry. The changing landscape of the sector including use of new technology and practices imply a need for reskilling and up skilling of the existing workers.*

Qualitative Skill Gaps

The qualitative skill gaps that were highlighted during our primary interactions with industry at Mungeli are provided in the table below.

Table 338: Qualitative Skill Gaps

Sector	Level	Skill Gaps
Agriculture	Tractor operator and mechanics/ Electricians/ Mechanics for repair & maintenance of agricultural tools & implements	<ul style="list-style-type: none"> ♦ Sufficient training to address tool & equipment failures like motor pump failure, gear damage, tyre puncture etc.
Trade (Retail and Wholesale)	Store/Department Manager	<ul style="list-style-type: none"> ♦ Understanding of cross functional activities in the store esp. logistics, marketing and merchandising ♦ People management skills ♦ Vendor Management ♦ Lack of IT skills
	Billing Associate/ Accountants/ Computer operators	<ul style="list-style-type: none"> ♦ Knowledge of transaction processing software and cash management ♦ Knowledge of tally/accounting practice
	Sales/Customer Service personnel	<ul style="list-style-type: none"> ♦ Product specific knowledge ♦ Customer service and Inter personal skills ♦ Communication skills ♦ Poor dressing sense
Building & Construction	Project Managers/Engineers	<ul style="list-style-type: none"> ♦ Knowledge of design and tools such as AutoCAD etc. ♦ Knowledge of green/eco-building design ♦ Project Management and People Management Skills ♦ Knowledge of appropriate safety practices ♦ Client Management skills (e.g. government officials for approvals, flat owners etc.)
	Supervisors: plumbing, electrical, carpentry, masonry, drilling	<ul style="list-style-type: none"> ♦ Skills in civil- operations of ready mix m/c, earth movers, etc. ♦ Basic repair and maintenance ♦ Exposure to right methodology in construction specific skills like lining, leveling etc. ♦ Site safety concepts and procedures ♦ Lack of finishing skills
	Workmen: plumbing, electrical works, carpentry, masonry, drilling	<ul style="list-style-type: none"> ♦ Basic operating skills related to relevant category ♦ Improved/ better quality in finishing ♦ Site safety concepts and procedures ♦ Ability to understand & follow instructions/ manuals

4.20.8 Recommendations

Future Growth Opportunities in Mungeli

In the context of the current economic profile and proposed investments of the district, the demand for human resources at various skill levels has been analyzed. The observations have been augmented by primary interactions with industry & industry association representatives in the district and government officials at the state and district level. Based on our analysis and considering factors like high growth and employment potential, priority sector for the state government, investment trends, etc., the following sectors/industries have been identified with future growth opportunities for employment and subsequently, skill development in Mungeli.

Table 339: Key Growth Sectors - Mungeli

#	Priority Sectors	Growth opportunities in skills development and employment
1	Agriculture	<ul style="list-style-type: none"> Agriculture is currently providing employment to around 81% of the workers in the district & is expected to grow at around 4% over the next decade (2012-22). Agriculture is anticipated to be the residual & largest incremental employer in the district accounting for around 54% of the total incremental demand for manpower. It is expected to provide employment to around 29,443 persons over the decade.
2	Trade (Wholesale + Retail)	<ul style="list-style-type: none"> Trade (Wholesale+ Retail) is estimated to grow at around 6% in the period 2012-22. It is expected to be the second highest contributor to the anticipated incremental demand between 2012-13 and 2021-22, contributing to about 7.4% of the total incremental employment in Mungeli, with the highest demand anticipated for the semi-skilled workforce.
3	Building & Construction	<ul style="list-style-type: none"> Building and Construction activities are anticipated to be one of the major employers in Mungeli with approximately 6% of the total incremental demand for employment estimated to come from the sector. Construction sector is expected to grow at 11.1% (2012-22). The total budgeted value for ongoing building and construction activities (building and roadwork) in Mungeli for the year 2013-14 is allocated at Rs. 133 crores³⁹⁰.

Source: Deloitte Analysis

Considering the economic and skill landscape of Mungeli, the table below indicates the priority areas of focus for key stakeholders involved. These observations have been mainly derived from the growth opportunities identified above and through primary interactions with industry and industry association representatives in the district along with inputs from the students, training institutes and government.

Table 340: Key Recommendations for Stakeholders - Mungeli

Stakeholder	Priority Areas
NSDC	<p>NSDC can focus the efforts of its training partners and prioritize it's funding in the following key sectors identified in the district, viz.</p> <ul style="list-style-type: none"> Agriculture Trade (Wholesale + Retail) Building and Construction <p>Additionally, NSDC can focus its efforts on new high growth sectors like Communication & BFSI for funding.</p>
Private training providers	<ul style="list-style-type: none"> There is a need for courses in trade (wholesale+ retail) owing to the demand for more trained workers in the sector. Additionally, courses in Agriculture and building and construction can also be explored. In order to promote self-employment in the district, entrepreneurship development courses in the high growth sectors identified may be introduced. There is a need to strengthen the current placement tie-ups/linkages with industry as

³⁹⁰ Chhattisgarh Public Works Department

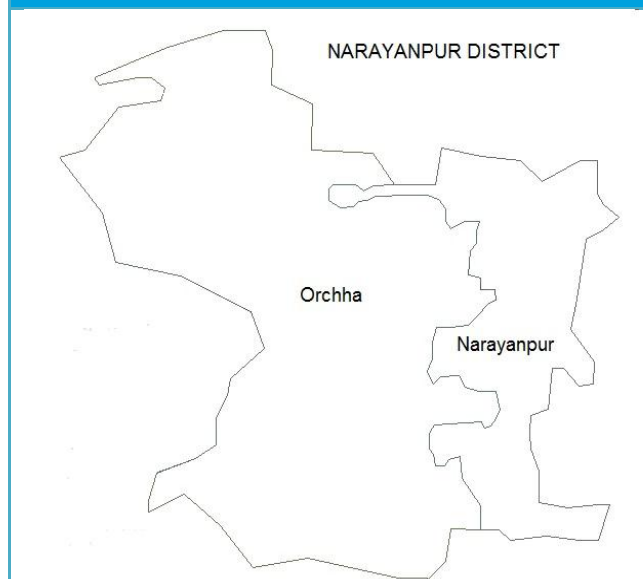
Stakeholder	Priority Areas
	<p>well as employment exchange as highlighted in the youth survey where around 80% of the youth expressed their dissatisfaction with the placement/ jobs available post training.</p> <ul style="list-style-type: none"> Moreover, the training providers should update equipment/machinery in the institute & provide manuals in workshops for practical classes. Unavailability of latest technology & equipment in the institute was highlighted by 66% of the youth surveyed.
Government	<ul style="list-style-type: none"> The Directorate of Horticulture & Farm Forestry should arrange training and extension activities on areas like organic farming, soil conservation techniques; pest management etc. in the district owing to the dependence of the majority of the population on Agriculture. These training activities should be undertaken in tie-ups with the VTP's as well as NSDC partners operational in Mungeli. The Government should encourage more vocational training institutes on public private partnership mode. To encourage self-employment, the MSME-DI, Raipur should arrange multiple product-cum- process oriented programs in the district like Entrepreneurship Skill Development programmes (ESDPs), Entrepreneurship Development Programmes (EDPs), Industrial Motivation Camps (IMCs), BSDPs etc. for different groups of unemployed youth, people from weaker sections of the society, minorities, SCs & STs, technocrats, etc. with an objective of developing entrepreneurial qualities and preparing new entrepreneurs to setup their own small enterprises. The Government should arrange regular awareness campaigns in order to encourage students to make an informed career choice for education.
Industry	<ul style="list-style-type: none"> More industry interactions could be initiated in the Trade and Building & Construction sectors in the district. Industry players should participate in improving upon the current course curriculum as observed in the youth survey where around 78% of the respondents quoted that the current education/training received by them is not in alignment with the potential job requirements.

4.21 Narayanpur

4.21.1 District Profile

Narayanpur district is located in the southern portion of Chhattisgarh. The district was carved out from erstwhile Bastar district on 11th May, 2007. It is a part of Bastar division. It is surrounded by Kanker on the north, Bijapur on the south, Kondagaon on the east, Dantewada and Bastar on the south-east. The district is divided into 2 tehsils viz. Narayanpur and Orcha, 69 gram panchayats, 1 Nagar Panchayat (Narayanpur) and 2 Janpad Panchayats (Narayanpur and Orcha).³⁹¹ Narayanpur town is the administrative headquarter of the district. The district is home to primitive tribal group, Madia Gond and Muriya Gond. The district is covered with dense forests and is enriched with natural beauty and pleasant atmosphere³⁹².

Map 22: Narayanpur District



Forests account for around 53.50% of the total geographical area of the district³⁹³. The forest cover of Narayanpur comprises of very dense forest (16.8%), moderately dense forest (54.1%) and open forest (29.1%)³⁹⁴.

Table 341: Narayanpur District Profile

#	Indicator	Narayanpur	Chhattisgarh	% Share
1.	No. of sub-districts	2	149	1.3
2.	No. of inhabited villages	572	20126	2.8
3.	No. of households (in lakhs)	.28	56.51	0.5
4.	Average Land holding size (Ha)	1.05	1.17	-
5.	Forest area cover	53.50%*	41.18%	-

Source: Census 2011; Directorate of Economics and Statistics- Govt. of Chhattisgarh; State of Forest Report 2011-Forest survey of India; Deloitte Analysis
 * Data is for undivided Narayanpur (including Bastar and Kondagaon)

³⁹¹ Census 2011 and Narayanpur district website (<http://narayanpur.gov.in>)

³⁹² Narayanpur website (<http://narayanpur.gov.in/>)

³⁹³ State of Forest Report 2011-Forest survey of India (Data is for undivided Narayanpur which includes Bastar and Kondagaon)

³⁹⁴ ibid.

4.21.2 Demography

As per Census 2011, Narayanpur has a population of 1, 40,206 of which 84.2% of the people reside in the rural areas³⁹⁵. The decadal population growth in Narayanpur during 2001-2011 was 19.2%, which is lesser than the growth rate of 23.4%³⁹⁶ during the period 1991-2001. As of 2011, Narayanpur is the least populous district of Chhattisgarh, accounting for only 0.55% of the state population. The population density at 30 persons/ sq. km. is much lower than the state average. However the sex ratio of 998 is slightly higher than the state sex ratio of 991. About 61.3% of the population is in the working age population class group. The district has a lower per capita income than the state average. It ranks 13th among the 27 districts of Chhattisgarh in terms of per capita income

Table 342: Demographic Indicators of Narayanpur

Demography	Narayanpur	Chhattisgarh
Population (2011)	1,40,206	2,55,40,196
Population 15-24 (2011)	28,043	49,89,339
Decadal Population Growth Rate (2001-11)	19.2%	22.6%
Population density per sq. km (2011)	30	189
Percentage of Urban Population (2011)	15.8%	23.2%
Percentage of SC population (2011)	3.6%	12.8%
Percentage of ST population (2011)	77.4%	30.6%
Average household size	5	4.54
Sex Ratio (2011)	998	991
Working age population (15-59) as a percentage of total population, %	61.3%	60.1%
Per Capita Income (2009)	Rs. 21,265 ³⁹⁷	Rs.28,263
Source: Census of India 2011; Directorate of Economics and Statistics- Govt. of Chhattisgarh, Narayanpur website (http://narayanpur.gov.in)		

Key Observations:

- ♦ Narayanpur is the least populated district of Chhattisgarh.
- ♦ The sex ratio of Narayanpur is higher than the state figure with around 998 females per 1000 males.
- ♦ The district has one of the highest percentages of Scheduled Tribe population in the state at 77.4%.

³⁹⁵ Census 2011

³⁹⁶ Data for undivided Narayanpur (includes Bastar and Kondagaon)

³⁹⁷ At 2004-05 constant prices, Deloitte Analysis

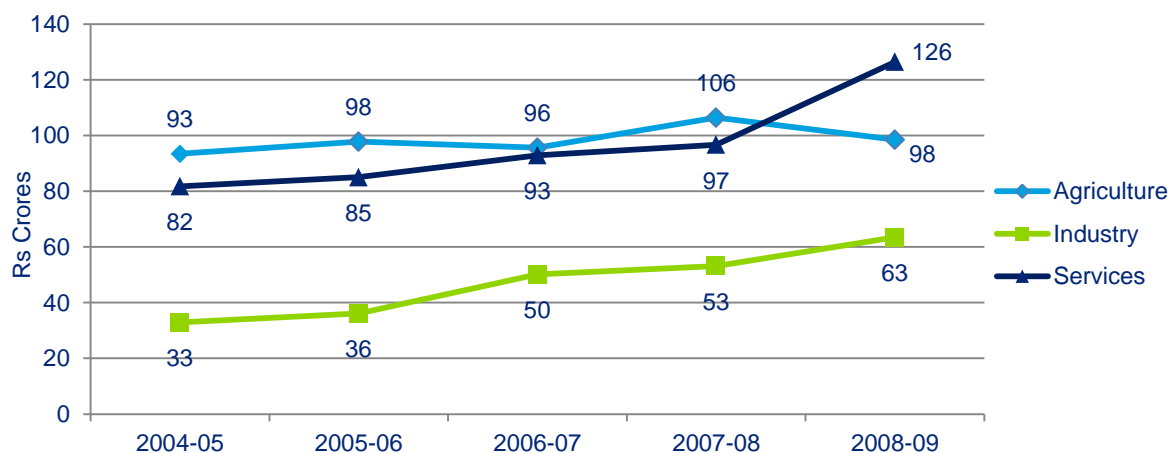
4.21.3 Economic Profile

Narayanpur was formed in the year 2007 after it got separated from Bastar. As per the analysis, the Gross District Domestic Product (GDDP) of Narayanpur in the period 2005-09 (estimated at 2004-05 constant prices) has grown at a CAGR of 8.5% which is less than the state growth rate of 9.6% during the corresponding period. At Rs 288.4 Cr., Narayanpur ranked last in the state in terms of economic activity in 2009³⁹⁸. The district contributed only 0.4% to the Gross State Domestic Product in the same year.

Narayanpur's economy is pre-dominantly Services sector based, **with the share of the Services sector in district economy being 43.9% in 2008-09**. It is followed by Agriculture and Industry sector with share of 34.1% and 22.0% respectively in the district economy. Both Industry and Services sectors have grown consistently from over the period 2005-09. The Industry sector has shown the highest growth rate in the district over the period 2005-2009 with a CAGR of 17.8% followed by Services and Agriculture sectors which registered a CAGR of 11.5% and 1.3% respectively.

The sector-wise GDDP growth and distribution from 2005-2009 is given in the figures below:

Figure 362: Sectoral Share of GDDP, 2004-05 to 2008-09, Narayanpur



Source: Directorate of Economics and Statistics- Govt. of Chhattisgarh (2004-05 base price); Deloitte Analysis

³⁹⁸ Directorate of Economics and Statistics-Chhattisgarh; Deloitte Analysis

Agriculture Sector

The contribution of Agriculture sector (agriculture, forestry & logging and fishing) to GDDP was 34.1% in 2008-09. Agriculture is the main contributor in the total output of the Agriculture sector contributing about 51.3% in the year 2008-09.

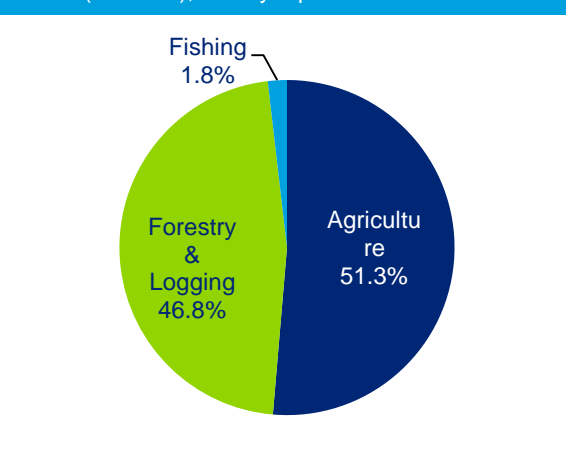
The tribal people of the area mostly use traditional methods of farming like wooden ploughs and bullock carts. Area under irrigation and use of fertilizer are very less in the district leading to low productivity of crops.

The chief crop grown in the district is rice, which being a rain-fed crop is grown predominantly during kharif season. The other crops grown in the district are maize, kudo-kutki, arhar, urd, kulthi. Collection and sale of forest produce and other forest-related work supplements the agricultural incomes. More than half of the district is covered by forests. Sal, teak and mixed forests are found in the district. The forests provide for people's consumption needs — fuel and firewood, medicines, food and drink, implements and housing materials. Narayanpur falls under the Kanker forest circle. The important non-nationalized species found in Narayanpur area are Kusum (Lac), Imli, Mahua, Kusum (Oil Seed), Karanj, Chironjee, Tikhur, Shahad, Aonla, Baheda, Bel, Baibiding, Bhelwa, Nagarmotha.

Industry Sector

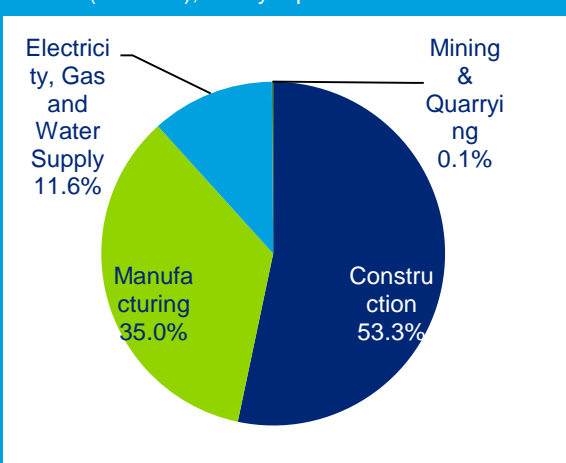
The Industry sector (mining & quarrying, manufacturing, construction, electricity, gas and water supply) contributed 22% to the GDDP in 2008-09. Construction is the major contributor within the Industry sector, with a sectoral share of about 53% in 2008-09. The total budgeted value for ongoing building and construction activities (building and roadwork) in Narayanpur for the year 2013-14 is allocated at Rs. 16 crores³⁹⁹. Narayanpur is famous for its exquisite handicrafts. Narayanpur Art, practiced by the tribals of the district is known all over the world for its unique artifacts. These artifacts usually depict the rural lifestyle of the tribal community. The art forms practiced in Narayanpur are Tumba, Bamboo, Bell Metal, Terracotta, Wood Carving, Wrought Iron and Sisal/Jute. However the district specializes in the preparation of items from the Dhokra Handicraft, which gives the impression of sheer dexterity of the artisans of this region. The artifacts prepared use the cow dung, paddy husk and red soil in the preparation, beeswax being the most important one. **There are around 40 handicraft clusters in**

Figure 363: Sub-sectoral break-up of Agriculture sector (2008-09), Narayanpur



Source: Directorate of Economics and Statistics- Govt. of Chhattisgarh; Deloitte Analysis

Figure 364: Sub-sectoral break-up of Industry sector (2008-09), Narayanpur

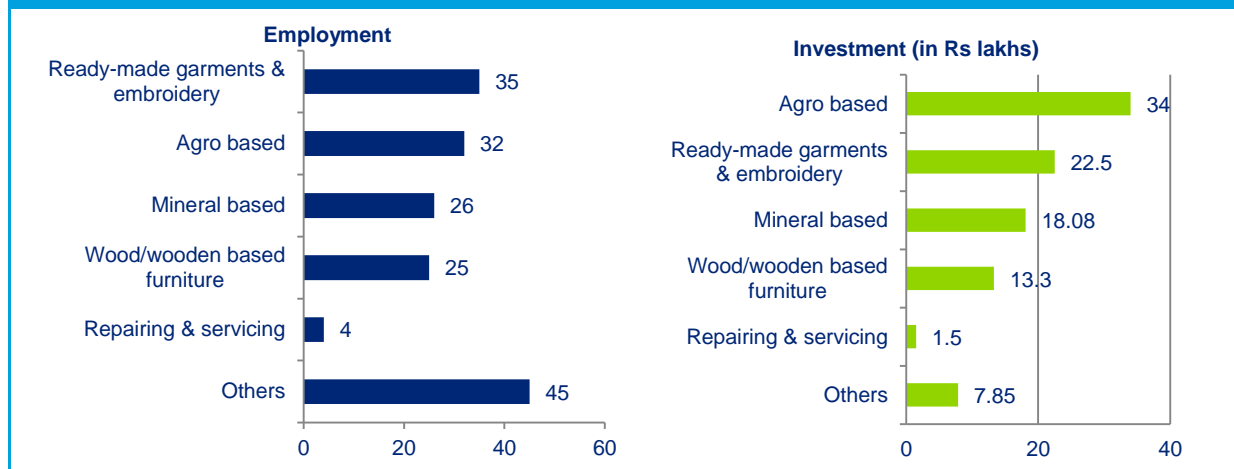


Source: Directorate of Economics and Statistics- Govt. of Chhattisgarh; Deloitte Analysis

³⁹⁹ Chhattisgarh Public Works Department

the district, which is the 5th highest in the state⁴⁰⁰. The investment in micro and small enterprises in the district is captured below. Agro based industries are the key industries in the MSME sector in terms of total investments.

Figure 365: Employment and Investment (in Rs lakhs) in micro and small enterprises, Narayanpur



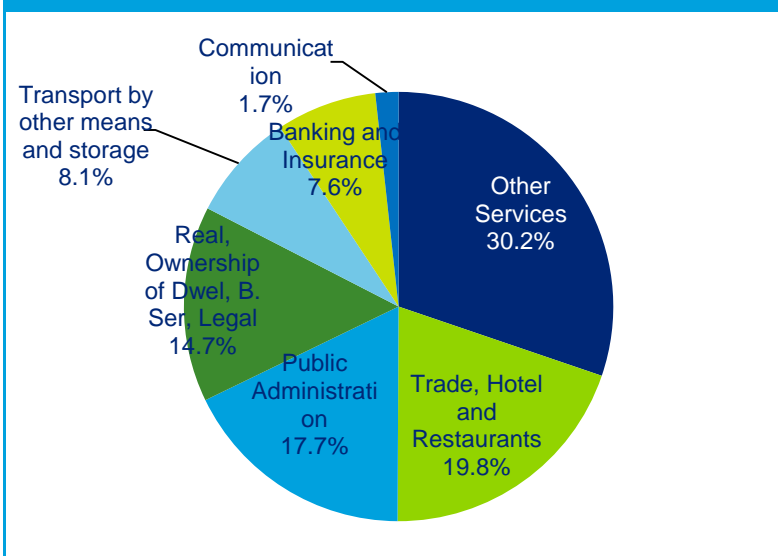
Source: Ministry of Micro, Small and Medium Enterprises, Government of India, 2011-12

Narayanpur is not rich in terms of mineral availability. However, some deposits of iron-ore are found in the district. The total mineral revenue receipt from mining of minerals in the district in 2012-13 was Rs 24 lakhs⁴⁰¹.

Services Sector

The Services sector contributed to about 43.9% of the GDDP in the year 2008-09. The key contributor to the sector is other services (30%) which includes education and skill development, healthcare services, social work and select informal sectors. Trade, hotels and restaurants with a sectoral contribution of 19.8% is also one of the key contributors of this sector. Narayanpur is predominantly a forest region. However it is endowed with exceptional scenic beauty that attracts nature lovers to explore the forests, waterfalls, wildlife, ancient temples, tribal dances and music. With a CAGR of about 16.6% and 19.8% over the period 2005-2009; communication and banking & insurance

Figure 366: Sub-sectoral break-up of Services sector (2008-09), Narayanpur



Source: Directorate of Economics and Statistics, Govt. of Chhattisgarh; Deloitte Analysis

⁴⁰⁰ Chhattisgarh Handicrafts Sector Profile, Chhattisgarh Handicrafts Sector Meet, 2012

⁴⁰¹ Directorate of Geology & Mining, Chhattisgarh

sectors respectively were one among the fastest growing sectors in the district, though their absolute sizes are small.

Key Observations:

- ♦ Narayanpur's economy is pre-dominantly Services sector based, **with the share of the Services sector in district economy being 43.9% in 2008-09**. It is followed by Agriculture and Industry sector with share of 34.1% and 22.0% respectively in the district economy.
- ♦ Both Industry and Services sectors have grown consistently from over the period 2005-09.
- ♦ The Industry sector has shown the highest growth rate in the district over the period 2005-2009 with a CAGR of 17.8% followed by Services and Agriculture sectors which registered a CAGR of 11.5% and 1.3% respectively.

4.21.4 Employment Profile

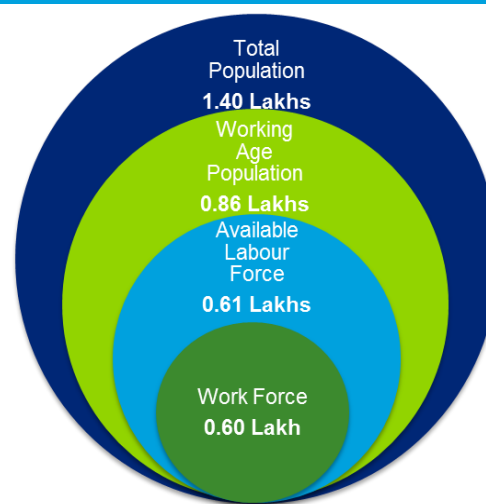
With a population of 1,40,206 in the year 2011, Narayanpur accounted for 0.55% of the state's population. The district ranks last in the state in terms of overall population.

The adjacent figure captures the estimated workforce in Narayanpur in the context of the population of the district. Out of the total population of 1.4 Lakhs, the working age population (between 15-59 age group) constitutes nearly 61.3%.

Based on the labor force participation rate and the worker participation rate estimates for the state, the available labour force is estimated to be 0.61 lakhs, and the workforce is estimated at 0.6 lakhs or nearly 70% of the working age population.

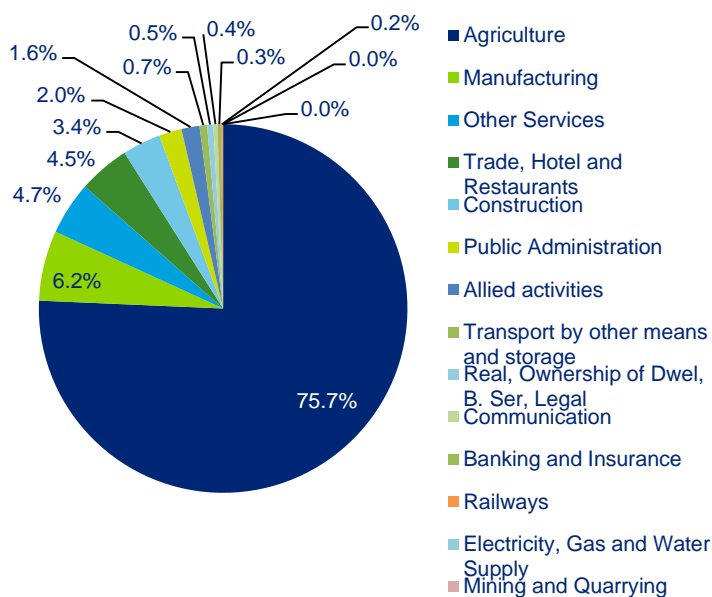
As of 2011, Almost three-fourth of the total workforce in the district is engaged in Agriculture sector, followed by the Services sector which employs 16.6% of the available workforce and Industry sector which employs 6.2% of the total workforce.

Figure 367: Total Workforce in Narayanpur (2011)



Source: Census 2011 and Deloitte Analysis

Figure 368: Sector wise employment in Narayanpur (2011)



Source: Census 2011 and Deloitte Analysis

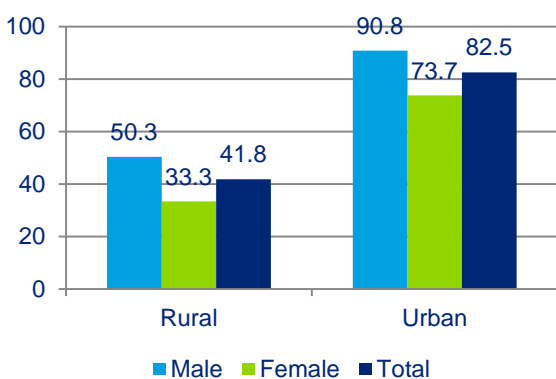
The sector-wise employment of Narayanpur for the year 2011 has been shown in the adjoining figure. Agriculture contributed to 75.7% of the total employment in the district. Manufacturing was the second highest employer in the district (6.2%) followed by other services employing 4.7% of the workforce. Trade, hotels and restaurants (4.5%) and construction (3.4%) are the other important sectors in the district in terms of employment.

The top five sectors in the district in terms of employment account for around 94% of the total employment of the available workforce in Narayanpur in 2011.

4.21.5 Education Infrastructure

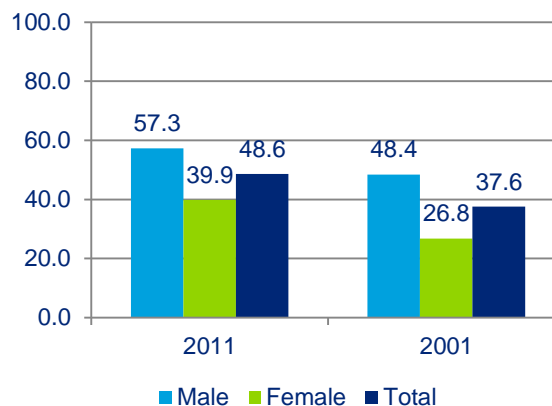
The literacy rate in Narayanpur has significantly improved from 37.5% in 2001 to 48.6% in 2011. However it is much lower than the state's literacy rate of 70.3% as well as the all-India literacy rate of 73%. In 2011, male and female literacy rates stood at 57.31% and 39.88% respectively, both figures considerably improving since 2001, where the figures stood at 48.44% and 26.78% respectively⁴⁰². However, there exists significant disparity in the literacy rates of rural and urban population (40.7%) in the district.

Figure 369: Literacy rate 2011 (by residence), Narayanpur



Source: Census of India 2011

Figure 370: Literacy rate (by Gender), Narayanpur



Source: Census of India, 2001 and 2011

School Education

Narayanpur has 448 primary schools, 147 upper primary schools, 9 secondary schools and 19 higher secondary schools. Net enrolment ratio (NER) at the upper primary level (47.7%) is considerably lower than the state NER of 67.8%.

Table 343: Status of school education infrastructure in Narayanpur, 2013

#	Educational Statistics	Units in Narayanpur	Units in Chhattisgarh	% Share of District in State
1	Primary School	448	35588	1.3%
2	Upper Primary School	147	16442	0.9%
3	Secondary School	9	2632	0.3%
4	Higher Secondary School	19	3548	0.5%
5	NER (Primary) (2010-11)	100%*	98% ⁴⁰³	-
6	NER (Upper Primary) (2010-11)	47.7%*	67.8%	-

Source: District Report Cards, DISE
 *Data is for undivided Narayanpur (including Bastar & Kondagaon)

⁴⁰² Census 2011

⁴⁰³ Data is for 2008-09

Vocational Education

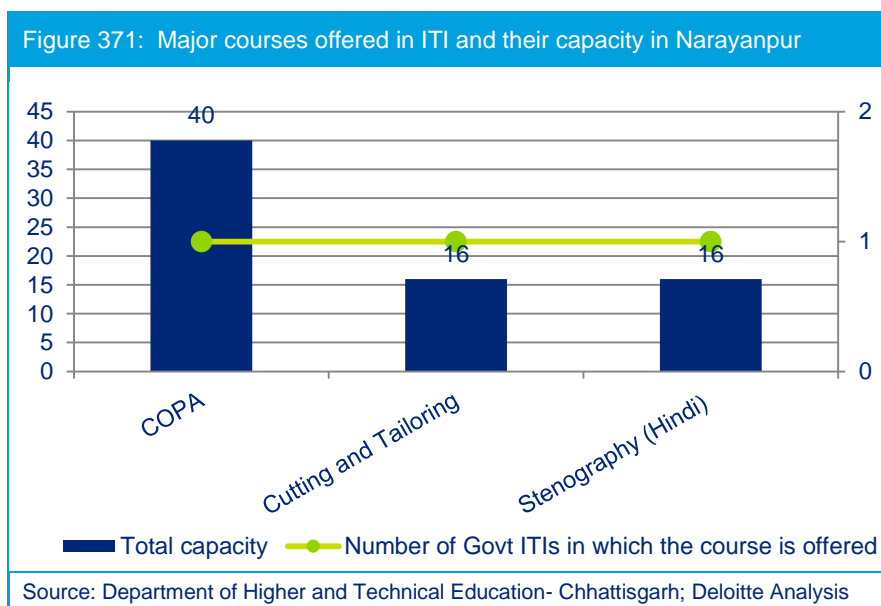
Narayanpur has only 1 ITI, which is a women's ITI. The total capacity of the ITI is 72. Stenography (Hindi), Computer Operator and Programming Assistant and Cutting and Tailoring are the courses offered by the ITI. The number of courses available in the ITI and its capacity is listed in the table below:

Table 344: ITIs in Narayanpur and their capacity

Name of ITI			Number of courses offered	Total Units affiliated	Total Capacity
Government Institute for Narayanpur	Industrial Tribal	Training Women,	3	4	72

Source: Department of Higher and Technical Education- Chhattisgarh; Deloitte Analysis

The courses offered in the ITI in Narayanpur and their capacity is given in the figure below:



According to Chhattisgarh State Skill Development Mission Website, as of 12th March 2014, Narayanpur has **26 Vocational Training Providers (VTPs)** under which there are 1210 registered beneficiaries. The following table highlights the courses offered in vocational education, which currently meet requirements of about 12 sectors.

Table 345: Courses offered in vocational education, Narayanpur

Sector	ITI trades and Units affiliated	Courses Offered by VTPs
Auto and auto components Electronics and IT hardware		Electrical, Electronics, Fabrication, Automotive Repairs
IT and ITES Tourism, hospitality and travel Organized retail Banking, financial services and insurance	Computer Operator and Programming Assistant(2), Stenography(1)	ICT, Soft skill
Textiles and clothing	Cutting and Tailoring(1)	Garment making

Leather and leather goods		
Building, construction and real estate Transportation, logistics, warehousing and packaging Construction material and building hardware		Construction, Courier Logistics, Material Management, Renewable Energy
Unorganized sector (particular reference to agriculture, security, plumbing, domestic worker, foundry, etc.)		Fisheries, Bamboo Fabrication, Apiculture, Agriculture, Animal husbandry and Meat Processing
Source: CSSDA Website		

The following table highlights the NSDC partners present in Narayanpur and the courses offered by them.

Table 346: NSDC partners present in Narayanpur

Name of Partner	Sectors in which course is offered	Courses offered
AISECT	IT and computer skills	<ul style="list-style-type: none"> ♦ Diploma In Computer Applications ♦ Post Graduate Diploma In Computer Applications
Source: NSDC		

Higher Education

The status of higher education in Narayanpur is not promising. Out of a total 590 colleges in the state, only 1 college is in the district of Narayanpur indicating the district's share in the higher education space of the state at just 0.2%. This is lower in comparison to the share of population of Narayanpur to the state (0.6%). The college present in the district is a Government college offering general degree courses and is affiliated to the Bastar University.

Key Observations:

- ♦ There is only 1 ITI and 26 VTPs active in the district.
- ♦ There is only one college in Narayanpur, which is a Government college affiliated to the Bastar University and offers general degree courses.

4.21.6 Youth Aspirations

Youth population constitutes the most important demographic section for a district from a skills development perspective. In the process of capturing the aspirations of the youth population in Narayanpur, focused group discussions were held with youth from educational institutions as well as residing in rural areas to understand their concerns, areas of interest and future dreams and goals. The FGD in Narayanpur was conducted at the Gram Panchayat Bhavan of GarhBengal. 31.6% of the respondents were in the age group 15-20 while 68.4% of them were between 21-25 years. The educational qualification of about 76.4% of the respondents was from high school and below. 13.2% of the participants were ITI or diploma, while the remaining participants were graduate or above.

The key observations about aspirations of the youth of the district are highlighted below.

Table 347: Youth Aspiration – Key Responses – Narayanpur

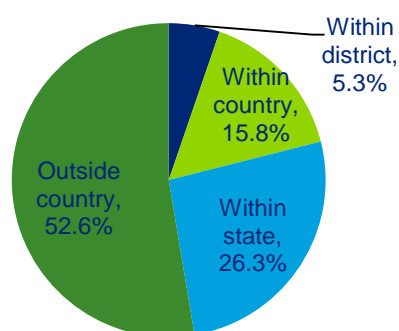
Parameters	Responses
Job Preference	<ul style="list-style-type: none"> Majority of the youth want to work in government organizations. Some women want to work in private companies. Many of the students interviewed want to be self-employed.
Preferred Course	<ul style="list-style-type: none"> People want to get training in computer software, TV repair, electrical work etc.
Migrating for job	<ul style="list-style-type: none"> Most of the youth prefer jobs within the state. Women want to work within district. Males are willing to go outside district for jobs.
Salary Expectations	<ul style="list-style-type: none"> Average monthly salary expectation of youth ranges between Rs 10000-20000/-
Areas of concern/ aspirations- Infrastructure	<ul style="list-style-type: none"> Youth reported poor quality of infrastructure in the institutes in terms of building, toilets, library, etc.
Areas of concern/ aspirations-Course Curriculum	<ul style="list-style-type: none"> Youths expressed the need for resourceful and good teachers. There should be awareness generation camps for training programmes. Youth feel that institutes should have more tie-ups between industries and institution
Suggestions given by youth	<ul style="list-style-type: none"> The youth expect Govt. to take up initiatives to improve college infrastructure. Youth expressed that Govt. should take measures to provide proper education facilities to the poor people. There should be more courses, practical classes, resourceful, efficient and regular teachers available in the institutes. The Government should open new institutes with more trades. There should be more tie-ups between industries and institutions.

A sample survey was conducted with youth at gram panchayat level & those coming out from various educational institutions (Government & private) to understand & capture their aspirations. The findings are presented below:

Job preference by youth

The majority of the youth we surveyed (52.6%) **prefer to get a job outside the country** as is evident from the adjacent figure. Approximately 5.3% of them preferred for job within their district of residence while 26.3% preferred jobs within the state. 15.8% of the youth preferred jobs anywhere in the country.

Figure 372: Job Preference by Youth



Source: Deloitte Analysis

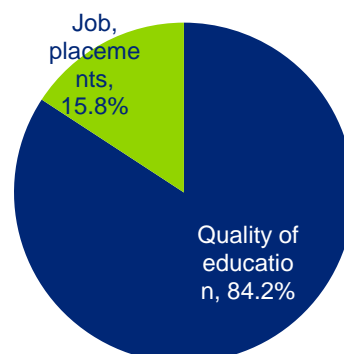
Parameter for Institute Selection

A majority of the students surveyed (84.2%) at the gram panchayat level quoted the **quality of education** as their prime parameter while selection of an institute for higher education. Almost 16% of them mentioned the prospects of employment as a chief criterion while taking admission in any of the institutes available.

Youth Perception Mapping

Youth perception mapping was undertaken to understand their level of satisfaction with either their current institute or their experience and feedback on the available educational infrastructure. The results are summarized below:

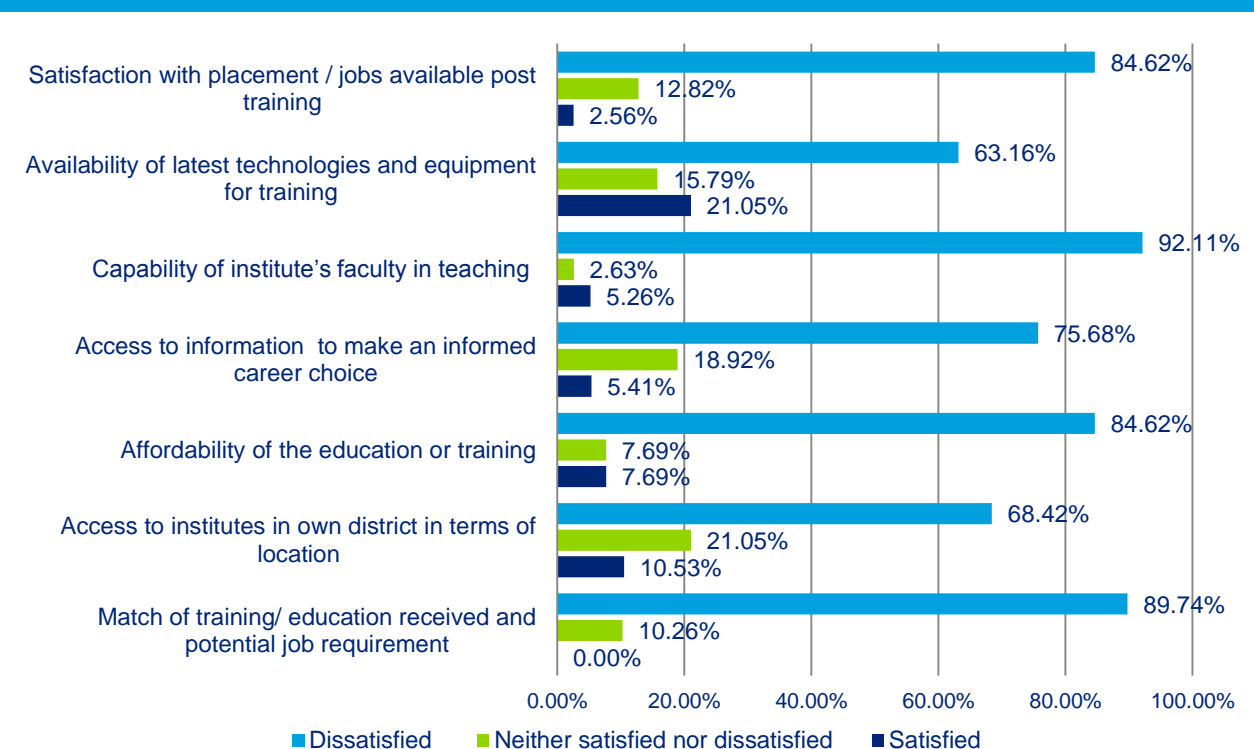
Figure 373: Parameter for Choice of Institute



Source: Deloitte Analysis

Low satisfaction with placement / jobs available post training: Around 3% of the students surveyed expressed their satisfaction with the placement opportunity available in the institute or jobs available post training. While around **85% of them felt the job opportunities available to them post training were not satisfactory**. They shared their expectation of being provided with a placement opportunity by the institute or facilitate a tie-up with nearby companies to give them an experience of hands on training.

Figure 374: Youth Perception Mapping, Narayanpur



Source: Deloitte Analysis

Non-availability of latest technologies and equipment for training: 63% of the students surveyed expressed their dissatisfaction with the availability of latest technology & equipment for training in the institute while 21% of them shared their satisfaction with the same. They felt the lack of equipment as a major constraint for their knowledge enhancement and appropriate level of skill development. They demanded that the institutes should be adequately equipped and upgraded with latest technology.

Dissatisfaction with capability of institute's faculty in teaching: Around 92% of the students (especially the students from Government ITI's) feel the **quality of teaching by faculty** is not satisfactory and needs significant improvement. They demanded the number of faculty to be increased as per the demand of the course and the lack of quality faculty in the institute to be improved.

Need for better access to information to make an informed career choice: Majority of the students were dissatisfied as far as access to information to make an informed career choice is concerned. Only 5% of the students vouch for accessibility to information to make an informed career choice, while 76% of them felt that they did not get proper accessibility to information to make an informed career choice. This showcases the importance of having career counseling to the potential students either at the school level or at the respective vocational institutes.

Affordability is as high a concern as quality and value for money in education or training: Majority of the students (around 85%) felt that the fees charged by the education/ training institute were a barrier for them and considered it to be unaffordable for them. They raised their concern that the quality of the training programme offered should be commensurate with the fees charged.

Access to institutes is an issue in rural areas: 68% of the students surveyed expressed their dissatisfaction with the accessibility of the educational institutes in terms of location. They felt the educational institutes to be inaccessible in terms of location. Around 11% students felt the educational institutes to be accessible in terms of location.

Dissatisfaction with utility of post school training/education received in terms of the job performance: The majority of students (90%) surveyed have shown their dissatisfaction with the utility of post school training/education in terms of job requirements. Thus, the survey brings out the need to make the required changes in the course curriculum to make the same application based and industry relevant.

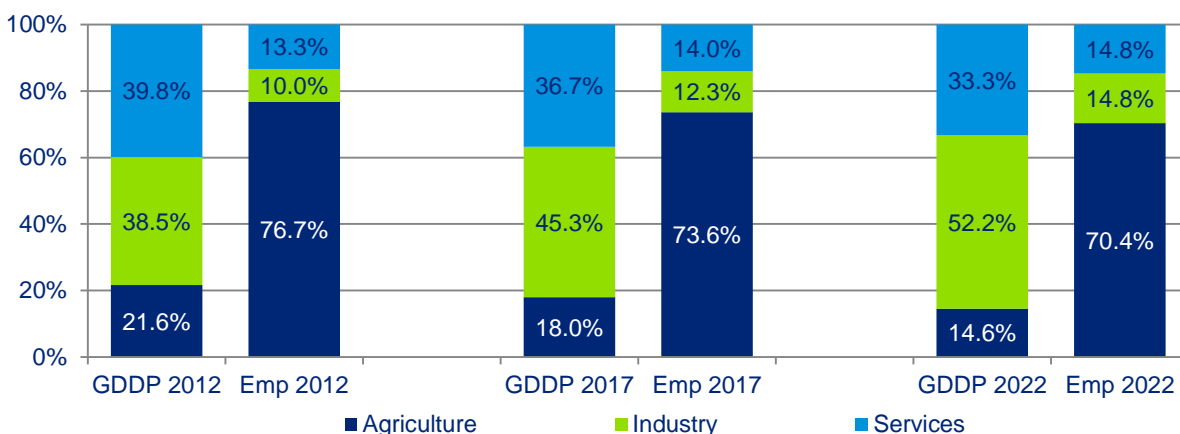
Key Observations:

- ♦ Majority of the students surveyed prefer to work in Government organizations. Many of the students interviewed want to be self-employed. The expected salary range of the youth is around Rs.10, 000 – Rs. 20,000 per month.
- ♦ Training for job readiness appears to be most popular among the youth. Men prefer training in computer related courses. Women expressed the need for courses in tailoring, cutting, etc.
- ♦ Need for updating course content & creating linkages for placement was strongly expressed by youth.
- ♦ Need to address infrastructure gaps - particularly improving the facilities in toilets, libraries, computer, buildings, tools and equipment was expressed
- ♦ Youth expressed the need for resourceful and better teachers in the institutes.
- ♦ Youth are not aware about the different Government initiatives on skill development.

4.21.7 Skill Gap Assessment

The working age population (15-59) constituting 61.3% of total district population in 2011, is expected to increase to 65.0% by 2022. Demand for jobs is expected to increase leading to the need for job creation. Similarly, to reap this demographic dividend, supply of labour must be adequately skilled.

Figure 375: Comparison of Sectoral share in GDDP & Employment, Narayanpur



Source: Deloitte Analysis

The above figure also depicts the significant disparity in the structures of economy and employment in the district. Based on our analysis and primary interactions, the Agriculture sector is expected to be an important sector in terms of providing employment in the district and would account for the largest share of workforce over the decade. If the trends in employment continue, in 2021-22, the share of employment across the Agriculture sector is expected to decline to 70.4% as compared to 76.7% in 2012.

The Industry and Services sector employment share are estimated to increase to 14.8% each, as indicated in the table above. This trend appears to be in line with the national trend as well where people are moving out of the Agriculture sector and moving into the Industry and Services sectors respectively.

Incremental Human Resource Demand

As per the methodology, the total incremental demand for manpower in Narayanpur by 2022 is expected to be 0.14 lakhs. Following table provides the break-up of the incremental demand for manpower in Narayanpur as per skill level required.

Table 348: Estimated Incremental Human Resource Demand (in '00s) by Skill Level in Narayanpur

	2012-17	2017-22	Total
Skilled	10	11	21
Semi-Skilled	20	24	44
Minimally Skilled	38	40	78
Total	68	75	144

Source: Deloitte Analysis

Some of the key trends observed on the demand side include

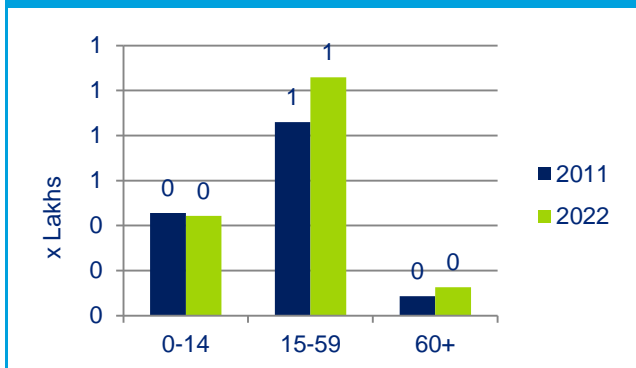
- ♦ *Agriculture will be the largest incremental demand generating sector (37%) with demand largely in the minimally skilled level.*
- ♦ *Within the Industries sector, the greatest incremental demand for employment is expected to come from the building and construction sector (16.4%) followed by handloom & handicrafts/ furniture & furnishing (10.8%), food processing (6.4%) and manufacturing –primarily metal/mineral based (5.2%).*
- ♦ *Within the Services Sector, trade (retail + wholesale) is expected to contribute about 4.3% of the total incremental demand for employment.*
- ♦ *Analysis of formal and informal employment indicates that the incremental demand for manpower in formal sector would come mainly from Building and Construction, Public Administration, BFSI, and education/skill development.*
- ♦ *Majority of demand for incremental manpower in the informal sector is projected to come from Agriculture, Construction, Food processing, Handloom and handicrafts, manufacturing (mineral/metal based), and furniture and furnishing sectors.*

Table 349: Incremental Human Resource Demand ('00s) Sector-wise by Skill Level in Narayanpur - Key Sectors

#	Sector	2012-17			2017-22				
		Skilled	Semi-skilled	Minimally Skilled	Total	Skilled	Semi-skilled	Minimally Skilled	Total
1	Agriculture	1	3	24	27	1	3	22	26
2	Building & construction	2	4	5	10	2	5	6	13
3	Handlooms & handicrafts/ Furniture & Furnishing	1	4	2	7	1	5	3	8
4	Food processing	0	1	3	4	0	1	3	5
5	Manufacturing (Mineral/ metal based)	1	2	1	3	1	2	1	4
6	Trade (Retail + Wholesale)	0	2	1	3	0	2	1	3
7	Others	5	4	4	13	6	5	4	15
Total		10	20	39	69	11	24	40	75
Overall Incremental Demand					144				
Source: Deloitte Analysis									

Incremental Human Resource Supply

Figure 376: Age wise distribution of population, Narayanpur - 2011 and 2022 (projected)



Source: Census 2011 and Deloitte Analysis

The population of Narayanpur is expected to increase from 1.40 lakhs in 2011 to 1.63 lakhs in 2022. Adjacent figure provides the current and projected population across various age groups. As per the analysis, the number and proportion of children in 0-14 age group is projected to decrease by about 0.01 lakh children, while the number of persons in the working age group is expected to increase by 0.20 lakh during the same period. This represents a potential demographic dividend for the district with a large increase in the employable population. On the other hand, it presents a huge challenge for the state to make available higher education and skill development facilities as well as ensure productive employment

opportunities for its population.

As per the methodology, the estimated total incremental manpower supply in Narayanpur over the decade (2012-2022) will be about 0.20 lakhs. Incremental manpower supply can be further classified into skilled, semi-skilled and minimally-skilled as per the education qualifications and estimated output of educational and vocational training institutes in the district.

Table 350: Estimated Incremental Human Resource Supply ('00s) by Skill Level in Narayanpur

	2012-17	2017-22	Total
Skilled	6	6	12
Semi-Skilled	31	35	66
Minimally Skilled	60	59	119
Total	97	100	197

Source: Deloitte Analysis

Some of the key trends observed on the supply side include

- Proportion of incremental supply of minimally skilled manpower is 60.5%, compared to 33.2% of semi-skilled and 6.3% of skilled manpower (2012-22)
- Narayanpur has a very low share of higher education institutes in the state, 1 out of 590 colleges (0.2%) which accounts for the low percentage of skilled labour in the district.
- Narayanpur has 1 out of 180 ITIs and 26 VTPs in the state, which account for a moderate supply of semi-skilled labour in the district.
- The trend of migration is expected to be inward from other states and districts across all skill levels and would account to nearly 1.8% of the supply. According to primary interactions, inward migration is both in minimally skilled and semi-skilled jobs esp. in building & construction and manufacturing sectors.

Incremental Demand Supply Gap

During the period 2012-22, the incremental demand supply gap of the district (across all sectors mentioned above) is expected to be a surplus of 0.05 lakh people (refer table below). There is assessed to be an excess demand across skilled segment with an excess supply expected in the semi-skilled and minimally skilled segments.

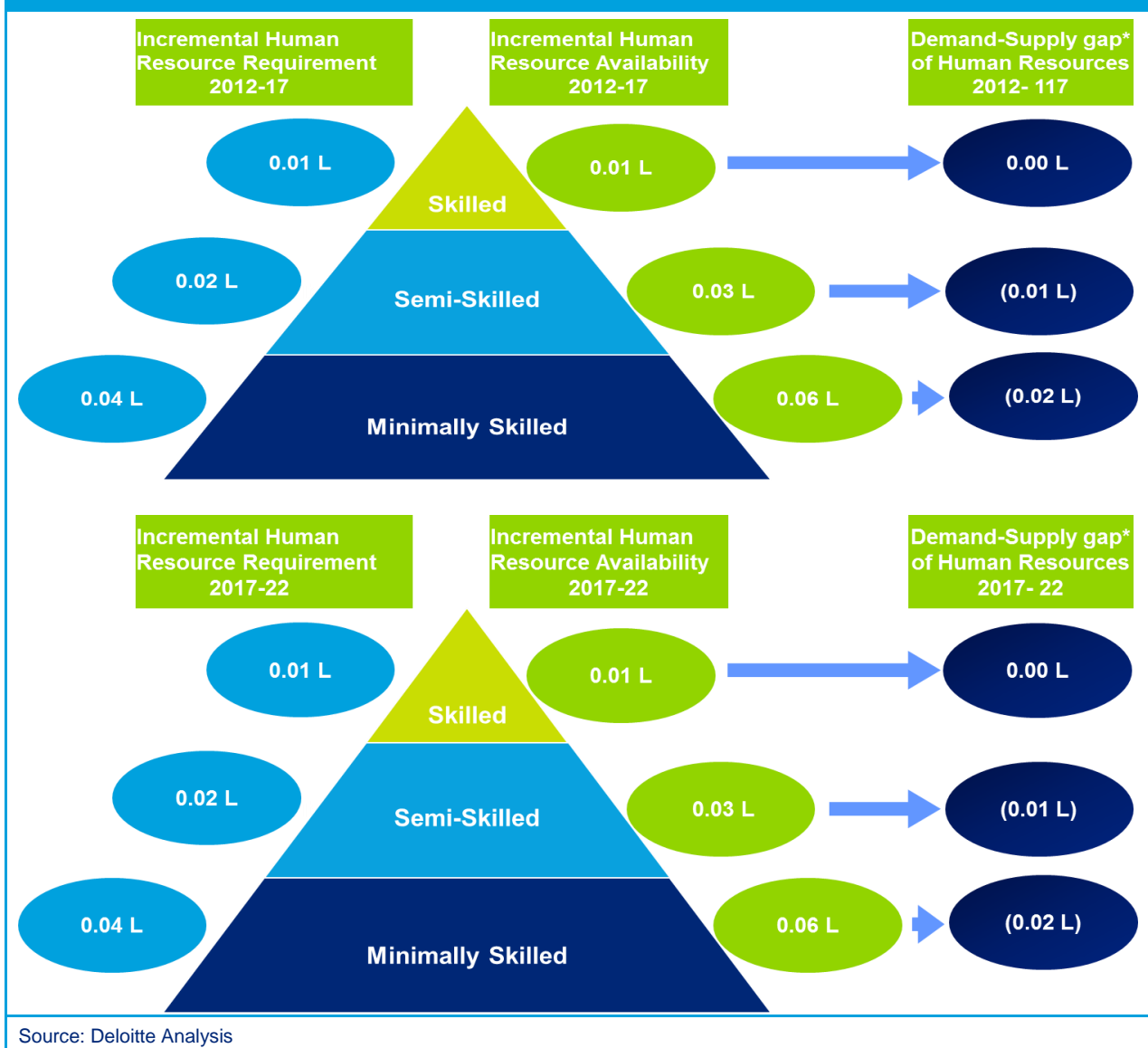
This means the rate of creation of employment in the district has to be augmented with suitable government initiatives in order to absorb the supply of workforce projected to enter the job market. Moreover, it also indicates a potential for skilling the semi-skilled and minimally skilled workforce and shift them to the more productive job roles assumed at the higher skill level respectively.

Table 351: Projected Demand Supply gap ('00s) by skill levels in Narayanpur

# District Skill Gap			2012-17				2017-22			
			Skilled	Semi-skilled	Min. Skilled	Total	Skilled	Semi-skilled	Min. Skilled	Total
1	Incremental Requirement (Demand)	HR	10	20	39	69	11	24	40	75
2	Incremental Availability(Supply)	HR	6	31	60	97	6	35	59	100
3	Demand-Supply Gap		4	(10)	(22)	(28)	5	(11)	(20)	(26)
Overall Demand-Supply Gap			(54)							
Source: Deloitte Analysis										

During the period 2012-22, the incremental manpower demand supply gap of the district (across all sectors mentioned above) is expected to be about 0.05 lakhs with the excess demand across skilled segment and surplus supply expected in the semi-skilled and minimally skilled segments as shown in the following figure.

Figure 377: Incremental Demand-Supply Gap (in lakhs), Narayanpur



Some of the key trends observed on the demand-supply gap include

- The composition of the human resource demand supply gap over the two different time periods i.e. 2012-17 and 2017-22 is anticipated to remain the same.
- The supply and demand of skilled resources is expected to match in the district. This is in line with low demand and low supply for skilled workers in the district.
- The trend of excess supply is likely to continue in the semi-skilled segment across both the periods. However, in terms of educational qualification, approximately 34% of the total semi-skilled workforce is estimated to be class 12 pass outs having undergone no job/skill specific training. This indicates

that if only outputs of semi-skilled workers from ITI/VTPs are considered, there is a supply deficit in that category also. In addition, primary interactions have raised **employability & deficit in specific jobs/ skills amongst the workers** as major concerns despite high overall supply in semi-skilled category. These have been captured in the qualitative skill gaps section below.

- ♦ In line with the urban-rural distribution and dependence of the majority of the population on informal employment, minimally skilled sector is estimated to have the highest excess supply of labour over the years.

Qualitative Skill Gaps

The qualitative skill gaps that were highlighted during our primary interactions with industry at Narayanpur are given in the table below.

Table 352: Qualitative Skill Gaps

Sector	Level	Skill Gap
Agriculture	Tractor operator and mechanics/ Electricians/ Mechanics for repair & maintenance of agricultural tools & implements	♦ Sufficient training to address tool & equipment failures like motor pump failure, gear damage, tyre puncture etc.
	Project Managers/Engineers	♦ Knowledge of design and tools such as AutoCAD etc. ♦ Knowledge of green/eco-building design ♦ Project Management and People Management Skills ♦ Knowledge of appropriate safety practices
Building & construction	Supervisors: plumbing, electrical, carpentry, masonry, drilling	♦ Skills in civil- operations of ready mix m/c, earth movers, etc. ♦ Basic repair and maintenance ♦ Exposure to right methodology in construction specific skills like lining, leveling etc. ♦ Site safety concepts and procedures
	Workmen: plumbing, electrical works, carpentry, masonry, drilling	♦ Basic operating skills related to relevant category ♦ Improved/ better quality in finishing ♦ Site safety concepts and procedures ♦ Ability to understand & follow instructions/ manuals
	Procurement Managers	♦ Ability to forecast demand and undertake procurement accordingly ♦ Ability to locate and enter into relationships with farmers
Food Processing	Plant Associates and operators	♦ Limited basic engineering knowledge esp. on practical aspects, process knowledge e.g. distillation
	Material Handlers	♦ Limited awareness on quality, health and hygiene awareness ♦ Limited basic computer skills including barcode reading
	Sales and marketing	♦ Limited Communication skills, ability and willingness to understand the manufacturing process
	Machine Operators	♦ Insufficient knowledge of machine operation and use ♦ Ability to understand & follow instructions/ manuals ♦ Limited ability to carry out basic repairs and troubleshooting

4.21.8 Recommendations

Future Growth Opportunities in Narayanpur

In the context of the current economic profile and proposed investments of the district, the demand for human resources at various skill levels has been analyzed. The observations have been augmented by primary interactions with industry & industry association representatives in the district and government officials at the state and district level. Based on our analysis and considering factors like high growth and employment potential, priority sector for the state government, investment trends, etc., the following sectors/industries have been identified with future growth opportunities for employment and subsequently, skill development in Narayanpur.

Table 353: Key Growth Sectors - Narayanpur

#	Priority Sectors	Growth opportunities in skills development and employment
1.	Agriculture	<ul style="list-style-type: none"> Agriculture currently provides employment to around 74.6% of the workers in the district. It is anticipated to be the residual & largest incremental employer in the district accounting for around 37% of the total incremental demand for manpower. Cultivation of paddy along with production of different varieties of pulses and collection of minor forest products is expected to employ a significant section of the workforce.
2.	Building & construction	<ul style="list-style-type: none"> Construction is another major contributor in the district economy which is expected to grow at around 11.1% (2012-22). The total budgeted value for ongoing building and construction activities (building and roadwork) in Narayanpur for the year 2013-14 is allocated at Rs. 16 crores⁴⁰⁴. Building and construction is projected to be one of the chief employers in the district with approximately 16.4% of the total incremental demand for employment estimated to come from the sector.
3.	Manufacturing – Handloom & Handicrafts/ Furniture & Furnishing	<ul style="list-style-type: none"> Handloom & Handicrafts/ Furniture & Furnishing are one of the major employment providers in the district accounting for 10.8% of the total incremental demand. Narayanpur is famous for its exquisite handicrafts. Narayanpur Art, practiced by the tribal of the district is known all over the world for its unique artifacts. The district has around 40 handicraft clusters in the district, which is the 5th highest in the state.
4.	Food processing	<ul style="list-style-type: none"> Food processing sector (primarily agro based) is expected to contribute to 6.4% of the incremental demand in the district. The micro and small enterprises in the district are the major contributors of growth in this sector.
Source: Deloitte Analysis		

Considering the economic and skill landscape of Narayanpur, the table below indicates the priority areas of focus for key stakeholders involved. These observations have been mainly derived from the growth opportunities identified above and through primary interactions with industry and industry association representatives in the district along with inputs from the students, training institutes and government.

Table 354: Key Recommendations for Stakeholders - Narayanpur

Stakeholder	Priority Areas
NSDC	<p>NSDC can focus the efforts of its training partners and prioritize it's funding in the following key sectors identified in the district, viz.</p> <ul style="list-style-type: none"> ♦ Agriculture ♦ Building and Construction

⁴⁰⁴ Chhattisgarh Public Works Department

Stakeholder	Priority Areas
	<ul style="list-style-type: none"> ♦ Manufacturing – Food Processing ♦ Manufacturing – Handloom & Handicrafts/Furniture & Furnishings
Private training providers	<ul style="list-style-type: none"> ♦ There is a need for courses in Building and Construction sector owing to the greater demand for more workers in the sector. Additionally, courses in Food Processing, Handloom & Handicrafts/ Furniture & Furnishings & Agriculture sectors can also be explored. ♦ Since a majority of the population in the state is dependent on Agriculture, the private training providers should focus on training or providing extension support services in agricultural products processing, forestry and animal husbandry (including dairy & poultry) for the workers dependent on the sector. The skill development institutes in the district should collaborate with the Directorate of Agriculture, Directorate of Horticulture, Directorate of Animal Husbandry and Directorate of Fisheries for providing training in Agriculture and Allied sectors. ♦ The training institutes should introduce/ substantiate multi-disciplinary courses in sectors such as food processing, building & construction etc. ♦ There is a need for design and delivery of bridge courses with a focus on communication, language, basic IT and soft skills to make students job ready as highlighted by the youth of the district during youth interaction. ♦ In order to promote self-employment in the district, entrepreneurship development courses in the high growth sectors identified may be introduced.
Government	<ul style="list-style-type: none"> ♦ The Government should promote and endorse vocational education as a practical alternative to formal education with emphasis on providing job ready courses. ♦ The Government should incentivize vocational education and subsequent certification for the workforce in the district in terms of wage revision. ♦ To improve upon the quality of education in the state, the government must mandate accreditation of colleges to initiate sustainable improvement in quality of education. ♦ The government can promote colleges under PPP mode for training and graduating more students in high demand sectors. ♦ Owing to the dependence of the majority of population on agriculture, the government should focus on providing training in areas like agricultural products processing, vermicomposting and animal husbandry like dairy & poultry as additional source of income. ♦ For skilling the minimally skilled workers, Government can offer the following MES level courses which require minimum qualification as 5th Standard : <ul style="list-style-type: none"> ○ Construction: Plumber, Basic electrical training, Painter Assistant, Asst. Mason ○ Food Processing: Basic Food Preservation ♦ For aiding enrolment in vocational courses, the government can facilitate registration exercise at each ITI's/SDI's/ DET offices/Employment Exchanges.
Industry	<ul style="list-style-type: none"> ♦ More industry interactions could be initiated in the Building & Construction, Food Processing, Handloom & Handicrafts/ Furniture & Furnishings & Agriculture sectors in the district. ♦ Industry players should encourage training apprenticeships for trainees from institutes with reasonable stipend. ♦ Industry players should collaborate with private training providers/skill development institutes for identification of sector specific employable skills based on division of work in the labor market and help in updating the course content as well as delivery of the programs. ♦ Industry players should also participate in improving upon the current course curriculum as observed in the youth survey where around 90% of the respondents quoted that the current education/training received by them is not in alignment with the potential job requirements. ♦ The major private players as well as public sector enterprises in the state should undertake and encourage vocational training as part of their CSR activities either by partnering with the Skill Development Institutes for training or providing funds/resources for the same.

4.22 Raigarh

4.22.1 District Profile

Raigarh district, located in the eastern part of Chhattisgarh came into existence on 15 August, 1947.

The district is a part of Bilaspur division in the north and falls under the fertile Chhattisgarh Plains. It is surrounded by Surguja and Jashpur districts in north, Orissa in the east, Mahasamund district on the south and Korba & Janjgir-Champa districts in the west. It extends over an area of 7086 sq. Km, which is 5.2% of the total state area. The district is divided into 9 tehsils for its administrative functioning viz. Udaipur (Dharamjahgarh), Lailunga, Gharghoda, Tamnar, Raigarh, Pusour, Kharsia, Sarangarh and Baramkela. Tamnar, Pusour and Baramkela are the new tehsils created after Census 2001. Raigarh is the administrative

headquarter of the district. The district has a total of 10 statutory towns, 1475 Villages (1430 inhabitant villages and 45 un-inhabitant villages), 1 Municipal Corporation, 1 Municipality and 8 Nagar Panchayats⁴⁰⁵. The district does not have any Census Town. Forests account for around 35.9% of the total geographical area of the district. The forest cover of Raigarh is lower than the state average & comprises of very dense forest (4.9%), moderately dense forest (66.5%) and open forest (28.6%)⁴⁰⁶. The rivers in the district fall under two drainage systems viz. the Mahanadi and the Subarnarekha. Mahanadi is the major basin in the district. The principal tributaries of the Mahanadi are Mand, the Kelo and the Ib. The district has a subtropical climate characterized by hot summer and monsoon rainfall followed by dry and cold winter season.

Map 23: Raigarh District



Table 355: Raigarh District Profile

#	Indicator	Raigarh	Chhattisgarh	% Share
1.	Area, in sq.km.	5031	135,190	5.2
2.	No. of sub-districts	9	149	6.0
3.	No. of inhabited villages	1430	20126	7.1
4.	No. of households (in lakhs)	3.68	56.50	6.5
5.	Average Land holding size (Ha)	1.31	1.17	
6.	Forest area cover	35.93%	41.18%	
Source: Census 2011; Directorate of Economics and Statistics- Govt. of Chhattisgarh; State of Forest Report 2011-Forest survey of India; http://raigarh.gov.in/ and Deloitte Analysis				

⁴⁰⁵ Census 2011 and <http://raigarh.gov.in/>

⁴⁰⁶ Forest survey of India, Ministry of Environment & Forest, 2011

4.22.2 Demography

As per Census 2011, Raigarh has a total population of 14, 93,627 registering 18.05% population growth rate over the decade. The district shares approximately 5.8% of the state's population. About 83.51% of the total population resides in rural areas with just 16.49% of them being urban residents. Tehsils like Sarangarh (3.40%), Udaipur (5.61%) and Kharsia (9.00%) are amongst the select tehsils in Chhattisgarh registering one of the lowest urban population growth rates. Tamnar tehsil in the district registered zero urban population as per Census 2011. On the other hand, Raigarh (53.05%) tehsil is amongst the highest urban population (percentage) tehsils in the state.

The decadal population growth in Raigarh during 2001-2011 was 18.05%, which is slightly lower than the population growth of 18.72% during the period 1991-2001.

Raigarh is one of the most populated districts of Chhattisgarh. As of 2011, Raigarh ranks 6th amongst all the districts of Chhattisgarh in terms of population. About 62.0% of the district's population is in the working age population class group. The population density of the district has improved over the decade with around 211 persons present per sq. km. in 2011 compared to 179 persons per sq. km. in 2001. The population density of the district is higher than the state average (189). The district registered slight decrease in sex ratio over the decade with around 993 females present per 1000 male compared to the 2001 census figure of 994. The district has one of the highest per capita incomes in the state. It ranks 4th among the districts of Chhattisgarh in terms of per capita income.

Table 356: Demographic Indicators of Raigarh

Demography	Raigarh	Chhattisgarh
Population (2011)	14,93,627	2,55,40,196
Population 15-24 (2011)	2,86,445	49,89,339
Decadal Population Growth Rate (2001-11)	18.05%	22.6%
Population density per sq. km (2011)	211	189
Percentage of Urban Population (2011)	16.49%	23.2%
Percentage of SC population (2011)	15.1%	12.8%
Percentage of ST population (2011)	33.8%	30.6%
Average household size	4.06	4.54
Sex Ratio (2011)	993	991
Working age population (15-59) as a percentage of total population, %	62.0%	62%
Per Capita Income (2009)	Rs.38663 ⁴⁰⁷	Rs.28263

Source: Census of India 2011; Directorate of Economics and Statistics- Govt. of Chhattisgarh

Key Observations:

- Raigarh is one of the most populated districts of Chhattisgarh. As of 2011, Raigarh ranks 6th amongst all the districts of Chhattisgarh in terms of population.
- The district has predominantly a rural based demographic constitution with about 83.51% of the total population residing in rural areas and 16.49% of them being urban residents.
- The district has one of the highest per capita income in the state of Chhattisgarh, ranking 4th among the districts in terms of per capita income (2009).

⁴⁰⁷ At 2004-05 constant prices, Deloitte analysis

4.22.3 Economic Profile

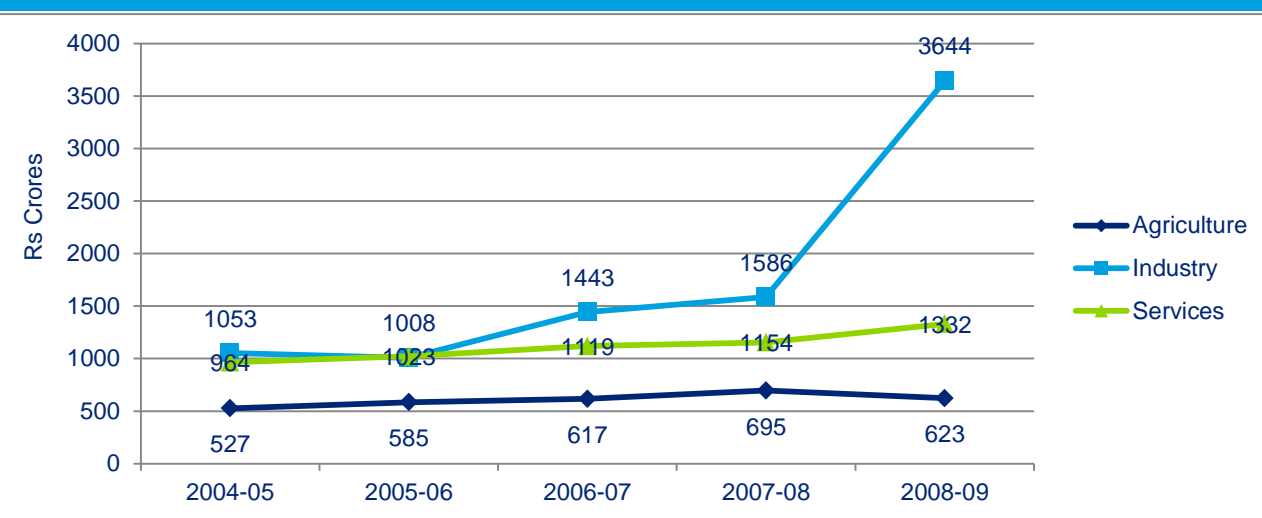
The economy of Raigarh has registered a CAGR of about 21.8% (estimated at constant price, 2004-05) between 2004-05 and 2008-09 and grown from Rs. 2,583.89 cr to Rs 5,598.38 cr. The district recorded the highest economic growth rate (21.8%) over the period 2005-09 and ranked 1st in the state.

In 2008-09, Raigarh district contributed 8.1% in the state economic activity. At Rs 5,598.38 cr., Raigarh ranked 4th in Chhattisgarh in terms of economic activity amongst all the districts of Chhattisgarh. Raigarh along with Korba, Durg, Raipur and Bilaspur are the top 5 districts in terms of contribution to the Gross State Domestic Product in 2008-09.

The economy of Raigarh district is pre-dominantly Industry sector based with its share in GDDP pegged at 65.1% in 2008-09. This is followed by Services sector which contributes 23.8% in the district economic profile and Agriculture sector contributing 11.1%.

In terms of sector level contribution to GDDP, the Agriculture sector's contribution has declined from 20.7% in 2004-05 to 11.1% in 2008-09, as indicated in the figure below. Similarly, the Services sector contribution also registered a significant decline from 37.9% to 23.8% between the same time periods. However, it is important to note that the share of Industry sector in the district has increased considerably from 41.4% to 65.1%, primarily due to increased contribution of Electricity, gas & water supply. The sector-wise GDDP growth and distribution from 2005-09 is provided below:

Figure 378: Sectoral Share of GDDP, 2004-05 to 2008-09, Raigarh



Source: Directorate of Economics and Statistics- Govt. of Chhattisgarh, (2004-05 base prices)

Agriculture Sector

The Agriculture sector consists of fishing, forestry and logging and agricultural activities. The contribution of Agriculture sector to the GDDP was 11.1% in 2008-09. The sector grew at a CAGR of 4.3% between 2004-05 & 2008-09, however, the overall contribution of the sector declined in the district. Agriculture is the chief contributor in the total output of the Agriculture sector in the district contributing around 75.4% in the year 2008-09 followed by forestry & logging (16.8%) and fishing (7.8%).

The district has a sub-tropical climatic condition. As of 2011, the gross cropped area in Raigarh is 3.03 lakhs ha while the net sown area in the district is 2.72 lakhs ha⁴⁰⁸. Around 22% of the Gross cropped area in Raigarh is irrigated⁴⁰⁹. Kharif crops are grown on a large scale in the district. Paddy is the chief crop in the state with approximately 2.40 lakhs ha sown under it in 2011. Raigarh is one of the leading producers of rice in Chhattisgarh. Black gram, ground nut and sunflower are the other major field while Potato and Brinjal are the chief vegetables grown in the district. In terms of horticultural produce, Cashew nut, Mango, Jackfruit etc. are grown in the district.

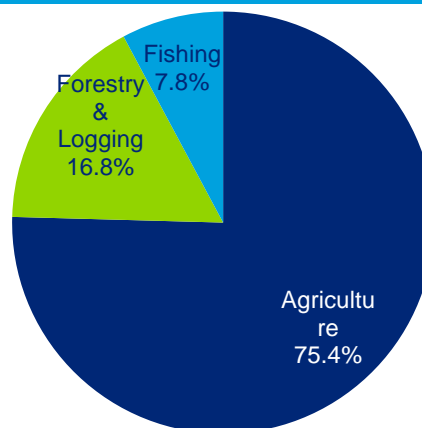
Forestry and logging activities also play an important role in the district economy. Raigarh falls under Bilaspur forest circle and the important non nationalized species available in the district are Imlī, Mahulpatta, Mahua, Chironjee, Shahad, Dhawai and Kalmegh.

Industry Sector

The Industry sector (manufacturing, mining & quarrying, construction, electricity, gas and water supply) contributed 65.1% to the GDDP in 2008-09. The overall contribution of the sector in the district economic profile increased from 41.4% in 2004-05 to 65.1% in 2008-09.

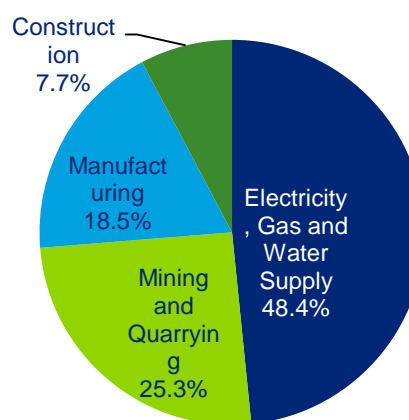
Electricity, Gas & Water Supply sector is the major contributor within the Industry sector accounting for a sectoral share of 48.4% followed by mining & quarrying (25.3%), manufacturing

Figure 379: Sub-sectoral break-up of Agriculture sector (2008-09), Raigarh



Source: Directorate of Economics and Statistics- Govt. of Chhattisgarh

Figure 380: Sub-sectoral break-up of industry sector (2008-09), Raigarh



Source: Directorate of Economics and Statistics, Govt. of Chhattisgarh; Deloitte Analysis

⁴⁰⁸ Statistical Pocket Book of Chhattisgarh, 2010-11

⁴⁰⁹ Ibid.

(18.5%) and construction (7.7%). The total budgeted value for ongoing building and construction activities (building and roadwork) in Raigarh for the year 2013-14 is allocated at Rs. 291 crores⁴¹⁰.

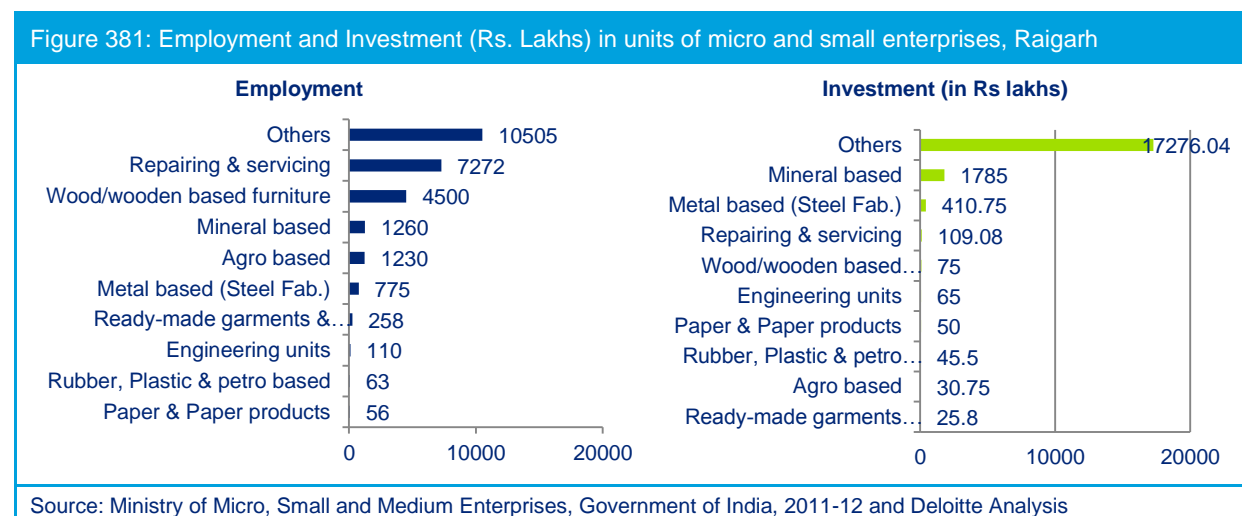
Raigarh is one of the major industrial centres of Chhattisgarh. The district is industrially developed and is famous for steel production. Raigarh has a number of steel and power plants such as Jindal Steel and Power Limited, Monnet Ispat & Energy Ltd. along with many other small and medium producers. It hosts one of the world's largest sponge iron and steel plant owned by Jindal Steel and Power Limited (situated just 8 km from Raigarh city). Raigarh also houses one of the oldest Jute mills of India, Mohan jute mill. A 4000 (5x800) MW super thermal power plant is proposed by NTPC and JSW Steel in the district.

Silk production is another major economic activity in Raigarh with the district being a producer of primarily 2 types of silk: Tasar Silk and Mulberry Silk. Raigarh along with Janjgir – Champa is considered as the hubs for Kosa cloth production in Chhattisgarh. Owing to the production of Kosa in the district many villagers are running units for producing Kosa sarees and dress materials of export quality.

Raigarh is also well known for 'Dhokra Casting' or 'Bell Metal Casting' which is an art of producing metal ware by the process of hot wax casting. Bell metal, Wood work, Lac and Terracotta are the major art forms in the district. As per the Chhattisgarh Handicrafts Sector Profile by the Chhattisgarh Handicrafts Development Board, there are a total of 21 handicraft clusters in Raigarh.

As per the Industrial profile of Raigarh district by MSME-DI, Raipur, there are a total of 9699 registered industrial units in the district. Furthermore, a total of 43 registered medium and large units exist in Raigarh out of which 35 are large scale industries and 8 Medium scale enterprises⁴¹¹. The key micro and small industries in the sector in terms of manpower employed are others manufacturing units, repairing and servicing entities, wood/wooden based furniture units, mineral based units and agro based units. The investment in micro and small enterprises in the district is summarized as well in the figure provided below. As evident from the figure, the key micro and small industries in the district in terms of investment (Rs. Lakhs) include others, mineral based units, metal based (steel fabrication) units, repairing and servicing entities and wood/wooden based furniture units.

Table 357: Key Micro & Small Enterprises in Raigarh in terms of Employment and Investment in Units



⁴¹⁰ Chhattisgarh Public Works Department

⁴¹¹ Brief Industrial Profile of Raigarh District, MSME-DI, Raipur

Raigarh has a Semi Urban Industrial Area at Chakradhar Nagar developed over an area of 9.797 ha with 78 plots established⁴¹². 45 units are already in production in the Semi Urban Industrial Area. In an effort to further provide a boost to the industrial profile of the district, CSIDC has proposed to set up a Large Industrial Area in the district over an area of 1466 hectares of land. The thrust areas in the proposed Large Industrial Area would be Steel Plants, Ferro Alloys Units, Power Plants/Captive Power Plants and other core industries.

Raigarh is endowed with a number of major minerals like Coal, Quartzite, Limestone and Dolomite. In 2010-11, the production of coal from the district was recorded at 186.11 lakh tonnes⁴¹³. The production (in tonnes) of the key minerals in the district for the year 2010-11 is summarized below.

Table 358: Production of Minerals in Raigarh (2010-11)

S#	Mineral	Production in Tonnes	Revenue Receipt (Rs. Lakhs)
1	Coal (Major Mineral)	18611087	24629.7
2	Quartzite (Major Mineral)	125860	36.7
3	Limestone (Major Mineral)	635	
4	Dolomite (Major Mineral)	127	158.5
5	Lime Stone (Minor Mineral)	577855	1279.1
6	Normal Stone (Minor Mineral)	371220	609.1
7	Muram (Minor Mineral)	3948	2.4
8	Clay (Brick-Minor Mineral)	4933	5.2

Source: Brief Industrial Profile of Raigarh District- MSME-DI, Raipur; Directorate of Geology & Mining- Chhattisgarh

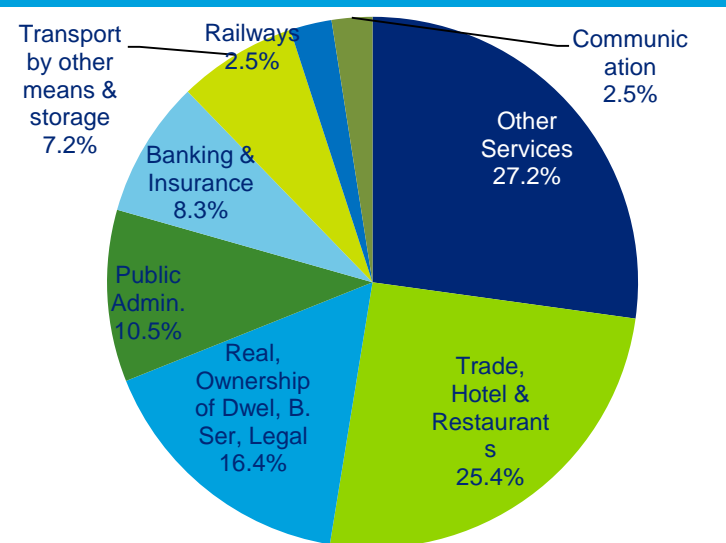
Incidences of diamonds is also reported from Ib river in Raigarh district

Services Sector

The Services sector contributed to about 23.8% of the district economic profile in the year 2008-09. The sector grew at a CAGR of around 8.4% between the period 2004-05 & 2008-09. The key contributor to the sector was other Services contributing approximately 27.2% in the district Services sector. Trade, hotels and restaurants (25.4%), Real Estate (16.4%), Public Administration (10.5%), Banking and Insurance (8.3%) and Transport by other means & storage (7.2%) are the chief contributors to the Services sector of the district in 2009.

Raigarh has good site seeing places like Ram Jharna (18 kms. from the District

Figure 382: Sub-sectoral break-up of Services sector (2008-09), Raigarh



Source: Directorate of Economics and Statistics- Govt. of Chhattisgarh

⁴¹² ibid.

⁴¹³ District Statistical Hand Book, Raigarh

Headquarter), Chandrahasini Temple (30 kms. from Raigarh), Banjari Mandir (20 kms. from District Headquarter) and Gomarda Abhayaranya (situated in Sarangarh Tehsil around 60 Kms. from the District Headquarter). Gomarda Sanctuary is spread over an area of 277.82 sq. kms and is a natural home for many wild animals like tigers, bears, etc. Koilighughar situated about 62 km from the District Headquarters on the Raigarh-Orissa road is a natural water source. Parks like Kamla Nehru Park, Haritima, Indira Vihar, Rose Garden, and Eco Park are other sightseeing places in Raigarh. 'Chakradhar Samaroh' festival held on Ganesh Chaturthi every year is a good time to visit Raigarh.

Raigarh comes under Bilaspur Railway Division. It is situated on the Tata Nagar–Bilaspur section of the Howrah-Nagpur-Mumbai line. Gondwana express and Janshatabdi express are the trains originating from Raigarh with a number of express and superfast trains passing from here. In terms of road connectivity, the district had 1546.10 kms of main district highway, 75.92 kms of other district & rural roads and 1657.92 kms of kachha road in 2010-11⁴¹⁴. The district has a total of 271 post offices. Many national and local newspapers like Nayee Duniya, Haribhoomi, Deshbandhu, Raigarh Sandesh, Kelo Pravah etc. are published from Raigarh.

With a CAGR of about 19.8% and 16.8% over the period 2005-2009, Banking & Insurance and Communication were amongst the fastest growing sectors in the district respectively, though their absolute sizes were small. In 2011, Raigarh had a total of 54 commercial banks, 40 rural banks and 7 co-operative banks.

Key Observations:

- ♦ Raigarh along with Korba, Durg, Raipur and Bilaspur are the top 5 districts in terms of contribution to the Gross State Domestic Product in 2008-09.
- ♦ The economy of Raigarh district is pre-dominantly Industry sector based with its share in GDDP pegged at 65.1% in 2008-09. This is followed by Services sector which contributes 23.8% in the district economic profile and Agriculture sector contributing 11.1%.

⁴¹⁴ Brief Industrial Profile of Raigarh district, MSME-DI, Raipur

4.22.4 Employment Profile

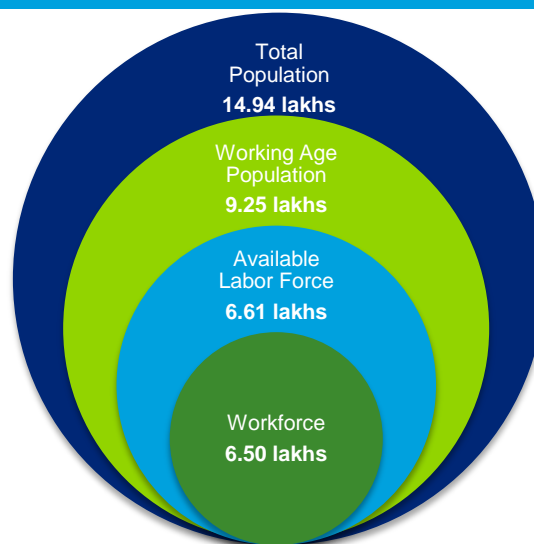
With a total population of 14.94 lakhs in the year 2011, Raigarh accounts for nearly 5.85% of the state's population.

The adjacent figure presents the estimated workforce in Raigarh in the context of total population of the district. Out of the total population of 14.94 lakhs, the working age population (between 15-59 age group) is estimated at around 9.25 lakhs or nearly 62.0%.

Based on the labor force participation rate and the worker participation rate estimates for the state, the available labor force is estimated to be 6.61 lakhs, and the workforce is estimated at 6.50 lakhs or nearly 70% of the total working age population.

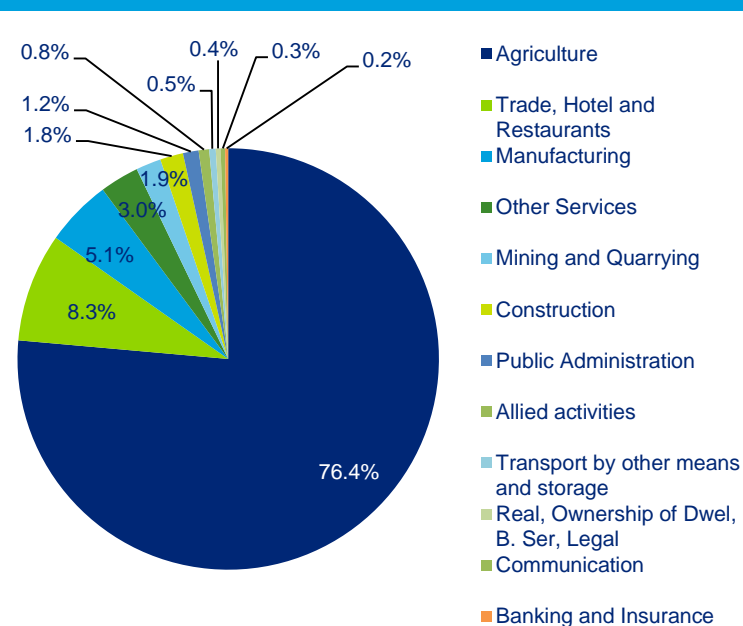
Agriculture is the highest employer in the district in 2011 employing around 76.3% of the total workforce. However it contributes only 16.9% share in the Gross District Domestic Product.

Figure 383: Total Workforce in Raigarh (2011)



Source: Census 2011 and Deloitte Analysis

Figure 384: Sector wise employment in Raigarh (2011)



Source: Census 2011 and Deloitte Analysis

While the Agriculture sector contributed around only 21.2% to the GDDP in the year 2011, it employed 76.3% of the total available workforce. Services sector ranked 2nd in the district in terms of employment share as well as to the GDDP contribution in 2011. The Industry sector on the other hand contributed 46.5% to the GDDP in 2011 and employed 9.4% of the total available workforce in Raigarh.

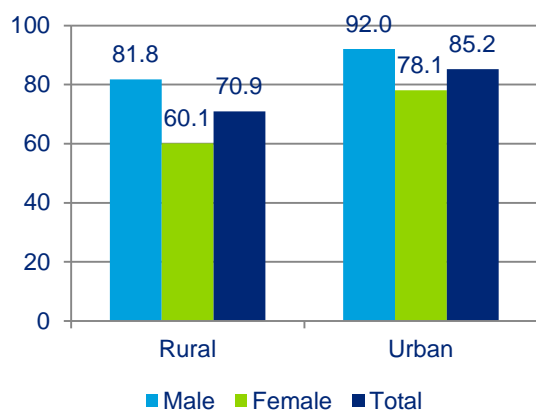
The adjoining figure summarizes the sector-wise employment share in Raigarh for the year 2011. Agriculture accounted for around 76% of the total employment in the district. Trade, hotels and restaurants (8.3%), manufacturing (5.1%), other services (3.0%) and mining and quarrying

(1.9%) are the other important sectors in the district in terms of employment accounting for nearly 95% of the total employment of the available workforce in Raigarh in 2011.

4.22.5 Education Infrastructure

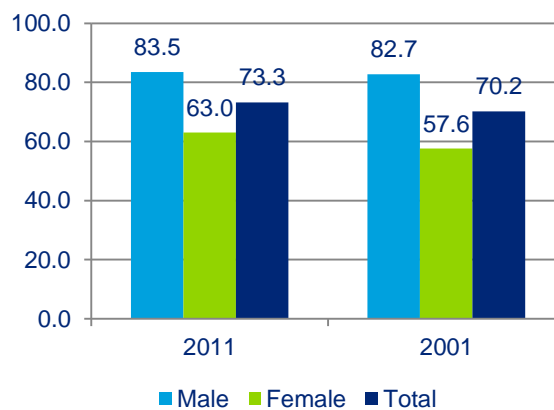
The literacy rate in Raigarh has slightly improved over the decade from 70.2% in 2001 to 73.3% in 2011. The literacy rate of the district is higher than the state's literacy rate of 70.3% in 2011 and is comparable to the all-India literacy rate of 73%. In 2011, male and female literacy rates stood at 83.49% and 63.02% respectively, both figures showing improvement compared to the 2001 figures of 82.70% and 57.62% respectively. However, there still exists a significant disparity between the male-female and urban-rural literacy rates.

Figure 385: Literacy rate 2011 (by residence), Raigarh



Source: Census of India 2011

Figure 386: Literacy rate (by Gender), Raigarh



Source: Census of India, 2001 and 2011

School Education

Raigarh has 2227 primary schools, 1067 upper primary schools, 146 secondary schools and 205 higher secondary schools. Net enrolment ratio (NER) at the upper primary level (64.3%) is comparable to the state NER of 67.8%.

Table 359: Status of school education infrastructure in Raigarh, 2013

#	Educational Statistics	Units in Raigarh	Units in Chhattisgarh	% Share of District in State
1	Primary School	2227	35588	6.3%
2	Upper Primary School	1067	16442	6.5%
3	Secondary School	146	2632	5.5%
4	Higher Secondary School	205	3548	5.8%
5	NER (Primary) (2010-11)	89.6%	98.0% ⁴¹⁵	-
6	NER (Upper Primary) (2010-11)	64.3%	67.8%	-

Source: DISE 2012-13

Vocational Education

For vocational training, Raigarh has a total of 11 ITIs in the district, of which 10 are Government Industrial Training Institutes while there is 1 Private Industrial Training Institute in the district. There is one woman

⁴¹⁵ Data is for 2008-09

ITI in Raigarh. The total capacity of the ITIs in the district is 1568. The capacity of Govt. ITIs is 1248 while that of the Private ITIs is 320. Electrician and Fitter courses have the maximum units affiliated among ITIs. The number of courses available in ITIs and their capacity are listed in the table below.

Table 360: ITIs in Raigarh and their capacity

Name of ITI	Number of courses offered	Total Units affiliated	Total Capacity
Government Industrial Training Institute, Raigarh	14	35	532
Government Industrial Training Institute for Women, Raigarh	2	3	48
Government Industrial Training Institute, Pusour	2	3	52
Government Industrial Training Institute, Sarangarh	2	4	72
Government Industrial Training Institute, Saria	3	6	104
Government Industrial Training Institute, Kharsia	4	6	100
Government Industrial Training Institute, Gharghoda	4	6	100
Government Industrial Training Institute, Dharamjahgarh	3	4	64
Government ITI, Tamnar	2	4	72
Government ITI, Lailunga	3	6	104
Agrasen Industrial Training Centre, Raigarh	2	20	320
Total	19*	97	1568

Source: Department of Higher and Technical Education, Chhattisgarh; Deloitte Analysis
 *Total number of different courses offered by ITI's in Raigarh

The major courses offered in the ITIs and their capacity in Raigarh is given in the figure below:

Figure 387: Major courses offered in Govt. ITIs and their capacity in Raigarh

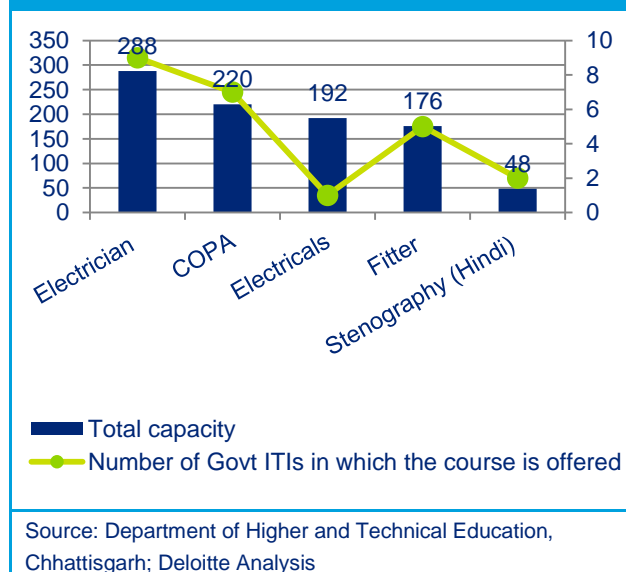
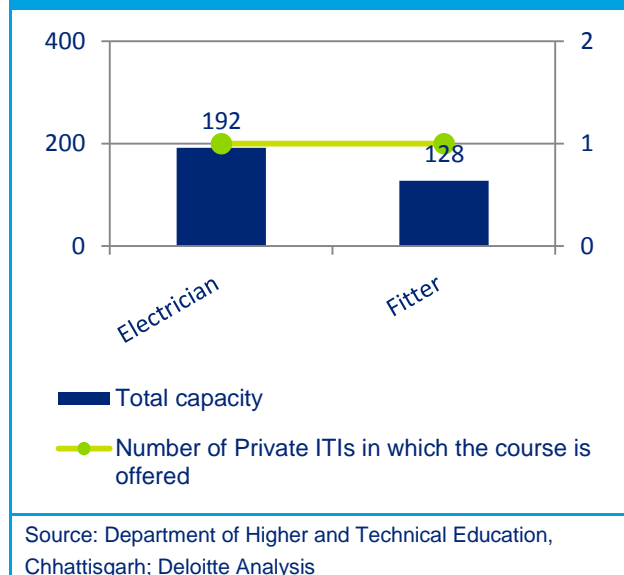


Figure 388: Major courses offered in Private ITIs and their capacity in Raigarh



According to Chhattisgarh State Skill Development Mission Website, as of 12th March 2014, Raigarh has **181 Vocational Training Providers (VTPs)** under which there are 2680 registered beneficiaries. The following table highlights the courses offered in vocational education, which currently meet requirements of about 14 sectors.

Table 361: Courses offered in vocational education, Raigarh

Sector	ITI trades and Units affiliated	Courses Offered by VTPs
Auto and auto components Electronics and IT hardware Chemicals and pharmaceuticals	Electrician(18), Electricals(12), Fitter(11), Mechanic and machinist (4), Turner(2), Welder(3)	Electrical, Electronics, Fabrication, Automotive Repairs, Production and manufacturing
IT and ITES Tourism, hospitality and travel Organized retail Banking, financial services and insurance	Computer Operator and Programming Assistant(11), Stenography(3), Secretarial practice(1), Driver cum mechanic (2)	ICT, Soft skill, Banking & Accounting, Insurance
Textiles and clothing Food processing	Cutting and Tailoring(1), Dress Making(1),	Garment making, Sericulture, Textile silk, Textiles Weaving, Food processing and preservation
Infrastructure (Transport, Energy, Water & Sanitation, Communication, Social & Commercial) Building, construction and real estate Construction material and building hardware Furniture and furnishing	Carpenter(2), Sheet Metal worker(2), Molder(2)	Construction
Unorganized sector (particular reference to agriculture, security, plumbing, domestic worker, foundry, etc.)	Plumber (1), Wireman(1),	Beauty culture and hair dressing, Agriculture, Animal husbandry & Meat processing
Source: CSSDA Website		

The following table highlights the NSDC partners present in Raigarh as of January 2014 and the courses offered by them.

Table 362: NSDC partners present in Raigarh

Name of Partner	Sectors in which course is offered	Courses offered
AISECT	Advance Diploma in Computer Hardware and Networking (ADCHN)	♦ Advance Diploma in Computer Hardware and Networking
	IT and computer skills	♦ Post graduate diploma in computer applications ♦ Diploma in computer programming applications ♦ Diploma in computer applications ♦ Certificate in Computer Applications
	ITES-BPO	♦ Post graduate diploma in computer applications ♦ Diploma in computer programming applications ♦ Diploma in computer applications
Source: NSDC		

Higher Education

Out of a total 590 colleges in the state, only 29 colleges are in the district of Raigarh indicating the district's share in the higher education space of the state at just 4.9%. This is lower in comparison to the share of population of Raigarh to the state (5.8%). Out of these 29 colleges, 21 offer general degree courses. Besides these 29 colleges, there is a Govt. Polytechnic Institute in Raigarh.

Table 363: Number and Capacity of Higher Education infrastructure in Raigarh

#	Colleges	Number	Estimated Capacity*
1	Arts, Science and Commerce	21	-
2	Technical	2	540
3	Agriculture	2	72
4	Management	1	-
5	Law	1	-
6	Nursing	1	40
7	Teacher Education	1	-
	TOTAL	29	-
*Source: University/College websites			

Key Observations:

- ♦ There are 11 ITIs and 181 VTPs active in the district.
- ♦ With 29 colleges, the share of Raigarh in the higher education space of the state is 4.9% is lower in comparison to the share of population of Raigarh to the state (5.8%).

4.22.6 Youth Aspirations

Youth population constitutes the most important demographic section for a district from a skills development perspective. In the process of capturing the aspirations of the youth population in Raigarh, focused group discussions were held with youth from educational institutions as well as residing in rural areas to understand their concerns, areas of interest and future dreams and goals. The FGD in Raigarh was conducted at the Gram panchayat Bhavan, Patelpali, Raigarh. In terms of the profile of the candidates, around 41.8% of the respondents were in the age group 15-20 while 45.9% of them were between 21-25 years. Remaining 12.2% of the respondents were 26 years and above. In terms of gender representation, around 58% of the participants were males and 42% were females. The educational qualification of about 64.1% of the participants was high-school level or below, 8.7% of the participants being diploma/certificate holders while the remaining 27.2% being graduate and above. The key observations about aspirations of the youth of the district are highlighted below.

Table 364: Youth Aspiration – Key Responses - Raigarh

Parameters	Responses
Job Preference	<ul style="list-style-type: none"> Government job is mostly preferred over private job by the youth however; they feel that the employment should be provided on merit basis.
Preferred Course	<ul style="list-style-type: none"> Training for job readiness appears to be most popular among the youth in the district. Computer training is one of the most preferred courses in the district. Women are interested in self-employment activities like tailoring & sewing and micro-industries like papad making, hawan samagri, etc.
Migrating for job	<ul style="list-style-type: none"> Females prefer jobs within the district, while men are comfortable with transferable jobs
Salary Expectations	<ul style="list-style-type: none"> Average monthly salary expectation of youth is Rs. 10000 and above.
Areas of concern/ aspirations- Infrastructure	<p>Following views were expressed regarding infrastructure in educational institutions:</p> <ul style="list-style-type: none"> Youth reported poor quality of infrastructure in the institutes in terms of books in the library, toilets, sports ground, canteens etc. The inadequacy of equipment in schools was also highlighted.
Areas of concern/ aspirations-Course Curriculum	<ul style="list-style-type: none"> Youth expressed a need for industry tie-ups for employment. They suggested that the local industries should train people on apprenticeship/ internship model to improve job prospects. Youth feel that institutes should provide more courses and improve the quality of teaching staff in the institutes.
Suggestions given by youth	<ul style="list-style-type: none"> The youth expect Govt. to take up initiatives to improve college infrastructure. Youth expressed that Govt. should take measures to provide Scholarships to BPL students and physically handicapped. There should be more courses, practical classes, resourceful, efficient and regular teachers available in the institutes. Career counseling and industry institute tie ups should be in place for providing sufficient job opportunities for the students.

A sample survey was conducted with youth at gram panchayat level & those coming out from various educational institutions (Government & private) to understand & capture their aspirations. The findings are presented below.

Job preference by youth

The majority of the youth surveyed (37%) **prefer to get a job within their home district** as presented in the adjacent figure. Approximately 8% of them preferred for job within their state of residence indicating thus that around 45% of the **youth surveyed prefer to get employment opportunities within Chhattisgarh**.

Parameter for Institute Selection

The majority of the students surveyed (95%) quoted the prospects of future employment as their necessary criteria for choice of educational institute of higher education. Around 5% of the respondents especially at the gram panchayat level quoted the proximity of the institute as a prime parameter for making the choice.

Youth Perception Mapping

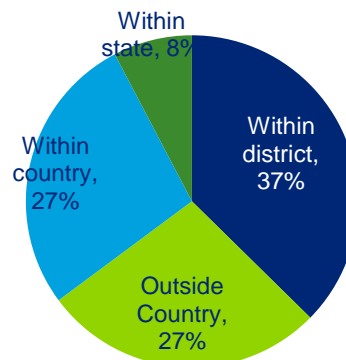
Youth perception mapping was undertaken to understand their level of satisfaction with either their current institute or their experience and feedback on the available educational infrastructure. The results are summarized below:

Satisfaction with placement / jobs available post training: Around 40.4% of the students surveyed expressed their satisfaction with the placement opportunity available in the institute or jobs available post training, while around 36.4% of them felt the job opportunities available to them post training were not satisfactory. They shared their expectation of being provided with a placement opportunity by the institute or facilitate a tie-up with nearby companies to give them an experience of hands on training.

Satisfaction with the availability of latest technologies and equipment for training: 49.5% of the students surveyed expressed their satisfaction with the availability of latest technology & equipment for training in the institute while 37.4% of them shared their dissatisfaction with the same. They felt the lack of equipment as a major constraint for their knowledge enhancement and appropriate level of skill development. They demanded the institutes to be adequately equipped and upgraded with latest technology.

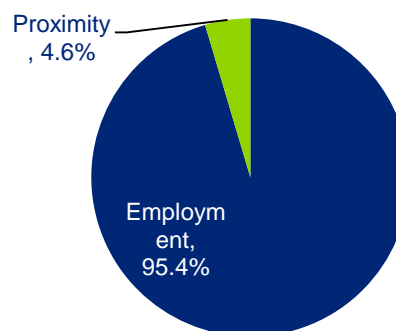
Satisfaction with capability of institute's faculty in teaching: Around 48% of the students surveyed feel the **quality of teaching by faculty** is satisfactory, while 32% of the students expressed their dissatisfaction with the quality of faculty. They demanded the number of faculty to be increased as per the demand of the course.

Figure 389: Job Preference by Youth



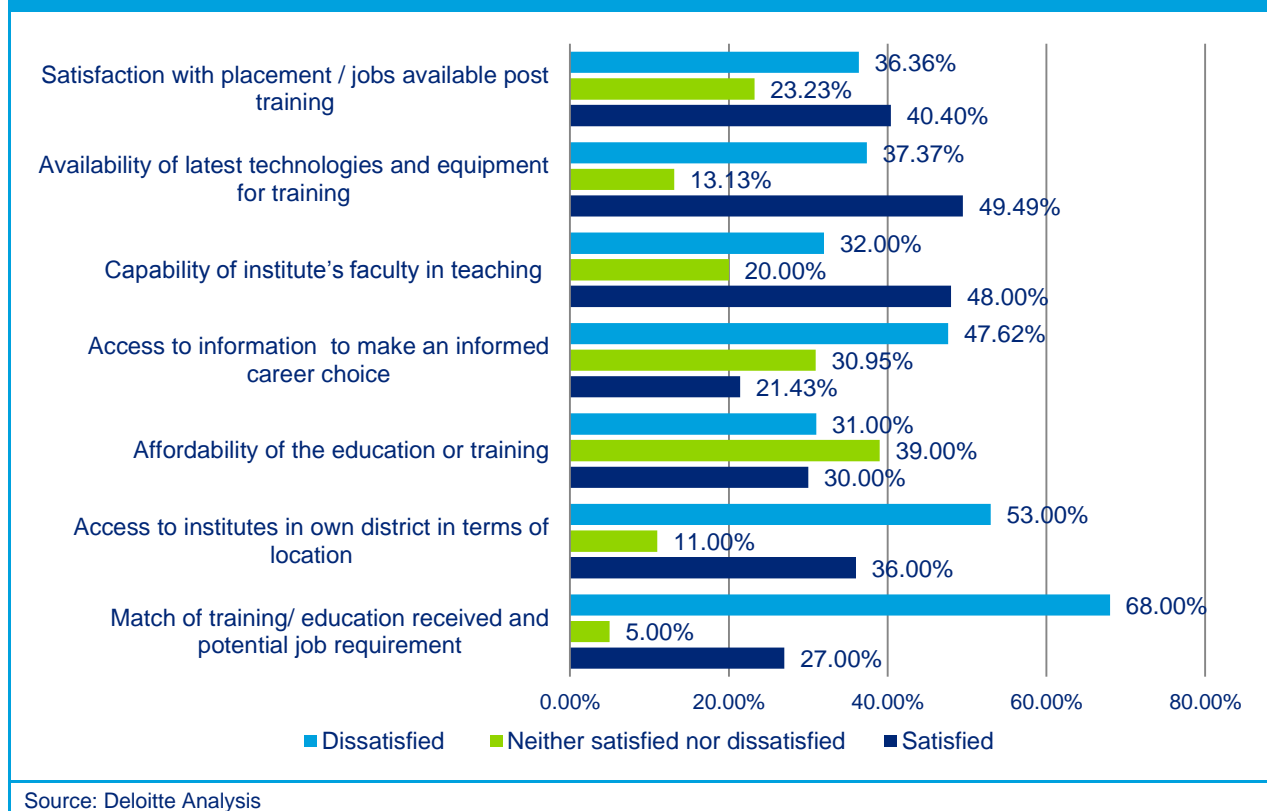
Source: Deloitte Analysis

Figure 390: Parameter for Choice of Institute



Source: Deloitte Analysis

Figure 391: Youth Perception Mapping, Raigarh



Need for better access to information to make an informed career choice: Around 21.4% of the students shared that they get proper accessibility to information in order to make an informed career choice. However, around 47.6% of them feel inaccessibility to information as a hindrance to informed choice of career. They emphasized the importance of career counseling while making a choice for higher education. This showcases the importance of having career counseling to the potential students either at the school level or at the respective vocational institutes.

Affordability is not as high a concern as quality and value for money in education or training: The youth were divided in their opinion for affordability of education. 30% of the students felt that the fees charged by the institute was affordable while 31% felt that the fees charged by the education/ training institute was a barrier for them and considered it to be unaffordable for them. They raised their concern that the quality of the training programme offered should be commensurate with the fees charged.

Access to institutes is an issue in rural areas: 53% of the students surveyed expressed their dissatisfaction with the accessibility of the educational institutes and found it to be inaccessible in terms of location (majority being rural youth). Around 36% of the youth found the institute to be located in an accessible area and safe in terms of the duration of classes. The rural youth voiced the government to support them by arranging suitable transport facility.

Dissatisfaction with the alignment of training/education received with job requirements: Approximately 68% of the students surveyed feel that the training/education currently provided by the educational institutes in the district is not in alignment with the job requirements of the business. Only 27% of the youth felt that the training/ education received by them matches the potential job requirements of the employers.

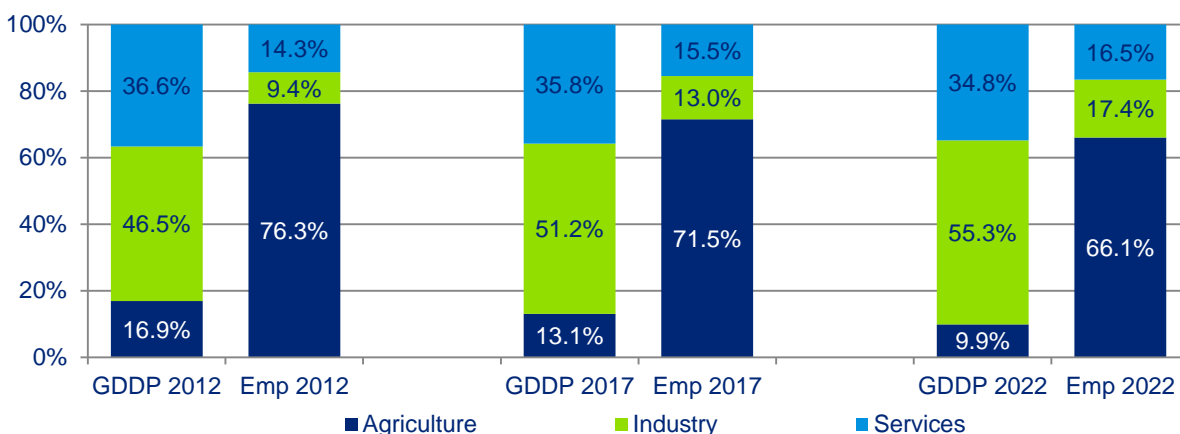
Key Observations:

- ♦ Govt. jobs are preferred over private jobs with an expected salary ranges of Rs. 10000/-and above depending upon qualification.
- ♦ Training for job readiness appears to be most popular among the youth. The need for introducing communication, language, basic IT and soft skills was emphasized by the youth.
- ♦ Need to address Infrastructure gaps - particularly toilets and drinking water facility along with updating the equipment was expressed. The need for better faculty was also expressed by youth.
- ♦ Youth are not aware about the different Government initiatives on skill development.
- ♦ The need for career counseling prior to admissions was strongly expressed by the youth

4.22.7 Skill Gap Assessment

The working age population (15-59) constituting 62% of total district population in 2011, is expected to increase to 64.7% by 2022. Demand for jobs is expected to increase leading to the need for job creation. Similarly, to reap this demographic dividend, supply of labour must be adequately skilled.

Figure 392: Comparison of Sectoral share in GDDP & Employment, Raigarh



Source: Deloitte Analysis

The above figure also depicts the significant disparity in the structures of economy and employment in the district. Based on our analysis and primary interactions, the Agriculture sector is expected to be an important sector in terms of providing employment in the district and would account for the largest share of workforce over the decade. If the trends in employment continue, in 2021-22, the share of employment across the Agriculture sector is expected to decline to 66.1% as compared to 76.3% in 2012.

The Industry and Services sector employment share are estimated to increase to 17.4% and 16.5% respectively, as indicated in the table above. This trend appears to be in line with the national trend as well where people are moving out of the agriculture sector and moving into the industry and services sectors respectively.

Incremental Human Resource Demand

As per the methodology, the total incremental demand for manpower in Raigarh by 2022 is expected to be 2.08 lakhs. Following table provides the break-up of the incremental demand for manpower in Raigarh as per skill level required.

Table 365: Estimated Incremental Human Resource Demand ('00s) by Skill Level in Raigarh

	2012-17	2017-22	Total
Skilled	128	164	292
Semi-Skilled	295	373	669
Minimally Skilled	522	596	1118
Total	945	1134	2079

Source: Deloitte Analysis

Some of the key trends observed on the demand side include

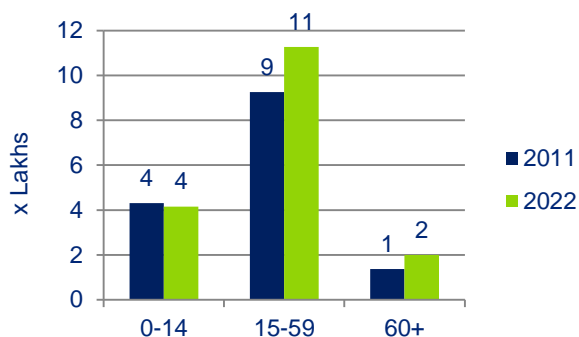
- ♦ *Agriculture sector will be the largest incremental demand generating sector (31.1%) with demand largely in the minimally skilled level (87%).*
- ♦ *Within the Industry Sector, the greatest incremental demand for employment is expected to come from mining and quarrying (21.2%) and manufacturing - mineral/metal based (14.2%) sectors. Raigarh has a number of steel and power plants such as Jindal Steel and Power Limited, NTPC, Monnet Ispat & Energy Ltd. along with many other small and medium producers which are expected to exercise increasing manpower demand.*
- ♦ *In the Services sector, Trade (Retail & Wholesale) 10.3%, and BFSI (3.5%) are expected to be the major employers.*
- ♦ *Analysis of formal and informal employment indicates that the incremental demand for manpower in formal sector would come mainly from Mining and Quarrying, Manufacturing (mineral/metal based), Building and Construction, BFSI, and Trade (Retail & Wholesale).*
- ♦ *Majority of demand for incremental manpower in the informal sector is projected to come from Agriculture, Trade (Retail & Wholesale), Manufacturing (mineral/metal based units), and Building & Construction.*

Table 366: Incremental Human Resource Demand ('00) by Skill Level in Raigarh - Key Sectors

#	Sector	2012-17				2017-22			
		Skilled	Semi-skilled	Minimally Skilled	Total	Skilled	Semi-skilled	Minimally Skilled	Total
1	Agriculture	10	33	291	335	9	31	272	312
2	Mining and Quarrying	16	48	97	161	28	84	168	280
3	Manufacturing (Mineral/metal based)	27	80	27	134	32	97	32	162
4	Trade (Retail + Wholesale)	16	53	37	105	17	55	39	110
5	Building & construction	98	26	29	65	13	34	38	84
6	Banking/ Insurance/ Finance	12	11	124	25	24	22	2	48
7	Communication	3	7	7	17	5	10	10	25
8	Others	34	37	33	104	36	40	36	112
	Total	128	295	522	945	164	373	596	1134
Overall Incremental Demand								2079	
Source: Deloitte Analysis									

Incremental Human Resource Supply

Figure 393: Age wise distribution of population (projected) - 2011 and 2022, Raigarh



Source: Census 2011 and Deloitte Analysis

The population of Raigarh is expected to increase from 14.9 lakhs in 2011 to 17.41 lakhs in 2022. The adjacent figure provides the current and projected population across various age groups. As per the analysis, the number and proportion of children in 0-14 age group is projected to fall by about 0.16 lakh children, while the working age population is expected to increase by 2.01 lakhs. This represents a potential demographic dividend for the district with a large increase in the employable population. On the other hand, it presents a huge challenge for the state to make available higher education and skill development facilities as well as ensure productive employment opportunities for its population.

As per the methodology, the estimated incremental manpower supply in Raigarh over the decade (2012-2022) will be about 1.73 lakhs.

Incremental manpower supply from various educational and vocational training institutes in the district can be further classified into skilled, semi-skilled & minimally skilled as per the educational qualifications.

Table 367: Estimated Incremental Human Resource Supply ('00s) by Skill Level in Raigarh

	2012-17	2017-22	Total
Skilled	173	182	355
Semi-Skilled	223	242	465
Minimally Skilled	462	447	909
Total	858	871	1729

Source: Deloitte Analysis

Some of the key trends observed on the supply side include

- Proportion of incremental supply of minimally skilled manpower is 52.6%, compared to 26.9% of skilled and 20.5% of semi-skilled manpower (2012-22)
- Raigarh has lower proportion of higher educational institutes (4.9%) in state in comparison to its population share.
- Raigarh has 11 out of 180 ITIs in the state having 6.1% of total capacity of all ITIs in the state, and also has growing presence of VTPs & Private vocational training providers which are contributing to the high output of semi-skilled manpower in the district
- The trend of migration is expected to be inward from other states and districts across all skill levels and would account to nearly 1.9% of the total supply.

Incremental Demand Supply Gap

During the period 2012-22, the incremental demand supply gap of the district (across all sectors mentioned above) is expected to be a surplus of around 0.35 lakh people (refer table below). There is assessed to be an excess supply across skilled segment with an excess demand expected in the semi-skilled and minimally skilled segments.

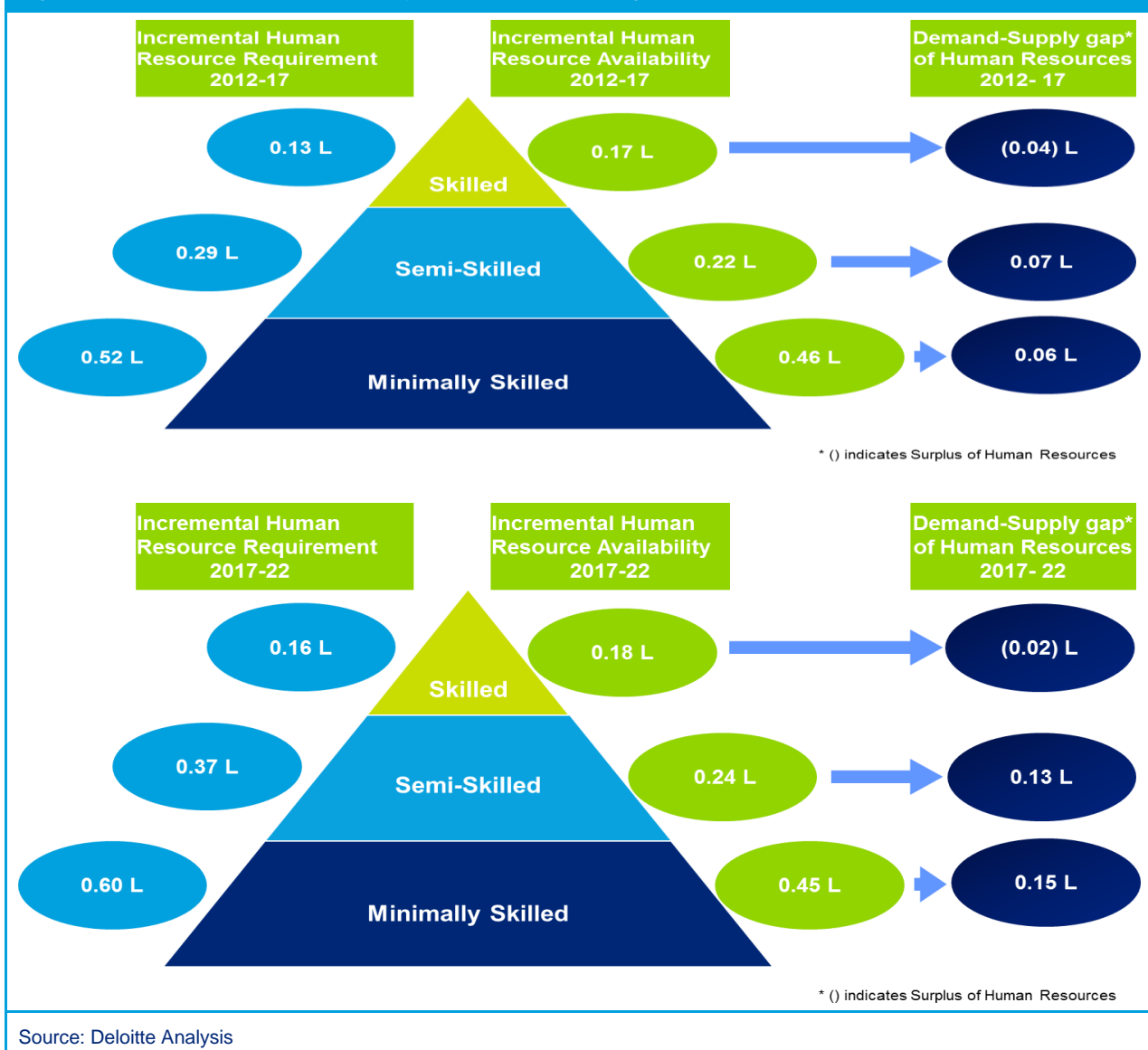
This means the rate of creation of employment in the district has to be augmented with suitable government initiatives in order to absorb the supply of skilled workforce projected to enter the job market. Moreover, it also indicates a potential for skilling the minimally skilled workforce and shift them to the more productive job roles assumed at the higher skill level respectively.

Table 368: Projected Demand Supply gap ('00s) by skill levels in Raigarh

#	District Skill Gap	2012-17				2017-22			
		Skilled	Semi-skilled	Min. Skilled	Total	Skilled	Semi-skilled	Min. Skilled	Total
1	Incremental HR Requirement (Demand)	128	295	522	945	164	373	596	1,134
2	Incremental HR Availability (Supply)	173	223	462	858	182	242	447	871
3	Demand-Supply Gap	(45)	72	60	87	(18)	132	149	263
Overall Demand-Supply Gap					350				
Source: Deloitte Analysis									

During the period 2012-22, the incremental manpower demand supply gap of the district (across all sectors mentioned above) is expected to be about 0.35 lakhs with the excess demand across all skill segments as shown in the following figure.

Figure 394: Incremental Demand-Supply Gap (Rs. Lakhs) , Raigarh



Source: Deloitte Analysis

Some of the key trends observed on the demand-supply gap include

- ♦ The composition of the human resource demand supply gap over the two different time periods i.e. 2012-17 and 2017-22 is anticipated to remain the same.
- ♦ In line with the rural-urban population distribution in the district (83.5% of the population residing in rural areas) and dominance of agriculture in employment in the district, the major contributor to the incremental supply is the minimally skilled segment. Moreover, the segment is also likely to experience the maximum shortage of workers in the district. This may result in some intra state migration of the surplus supply of minimally skilled workers from districts like Bilaspur, Jashpur, and Janjgir-Champa etc. in search of employment.

- ♦ *The excess supply in the skilled section is expected to continue over the period. Even in the case of existing supply of workers in the skilled segment, it is pertinent to note that it does not imply industry demand for skills is being sufficiently met. The industry interactions have revealed employability linked skills as a key area of concern. Approximately 76% of the total skilled workforce is estimated to be from general degree courses having undergone no job/skill specific training. The changing landscape of the sector including use of new technology and practices imply a need for reskilling and up skilling of the existing workers.*

Qualitative Skill Gaps

The qualitative skill gaps that were highlighted during our primary interactions with industry at Raigarh are given in the table below.

Table 369: Qualitative Skill Gaps

Sector	Level	Skill Gap
Agriculture	Tractor operator and mechanics/ Electricians/ Mechanics for repair & maintenance of agricultural tools & implements	<ul style="list-style-type: none"> ♦ Sufficient training to address tool & equipment failures like motor pump failure, gear damage, tyre puncture etc.
Manufacturing (mineral/metal based)	Manager/Engineer	<ul style="list-style-type: none"> ♦ Project Management and People Management Skills ♦ Knowledge of appropriate safety practices
	Supervisors	<ul style="list-style-type: none"> ♦ Interpersonal and communication skills ♦ Understanding of quality concepts ♦ Understanding of product specifications
	Workmen/operators	<ul style="list-style-type: none"> ♦ Understanding of discipline, industrial rules, work related procedures etc. ♦ Ability to carry out basic troubleshoot in case of machine breakdown
Trade (Retail + Wholesale)	Store/Department Manager	<ul style="list-style-type: none"> ♦ Understanding of cross functional activities in the store esp. logistics, marketing and merchandising ♦ People management skills ♦ Vendor Management
	Billing Associate/ Accountants/ Computer operators	<ul style="list-style-type: none"> ♦ Knowledge of transaction processing software and cash management ♦ Knowledge of tally/accounting practice
	Sales/Customer Service personnel	<ul style="list-style-type: none"> ♦ Product specific knowledge ♦ Customer service and Inter personal skills
Building & construction	Project Managers/Engineers	<ul style="list-style-type: none"> ♦ Knowledge of design and tools such as AutoCAD etc. ♦ Knowledge of green/eco-building design ♦ Project Management and People Management Skills ♦ Knowledge of appropriate safety practices
	Supervisors: plumbing, electrical, carpentry, masonry, drilling	<ul style="list-style-type: none"> ♦ Skills in civil- operations of ready mix m/c, earth movers, etc. ♦ Basic repair and maintenance ♦ Exposure to right methodology in construction specific skills like lining, leveling etc. ♦ Site safety concepts and procedures
	Workmen: plumbing, electrical works, carpentry, masonry, drilling	<ul style="list-style-type: none"> ♦ Basic operating skills related to relevant category ♦ Improved/ better quality in finishing ♦ Site safety concepts and procedures ♦ Ability to understand & follow instructions/ manuals

4.22.8 Recommendations

Future Growth Opportunities in Raigarh

In the context of the current profile and proposed investments in Raigarh, the demand-supply gap for human resources at various skill levels has been analyzed. The observations have been augmented by primary interactions with industry & industry association representatives in the district and government officials at the state and district level. Based on our analysis and considering factors like high growth and employment potential, priority sector for the state government, investment trends, etc., the following sectors/industries have been identified with future growth opportunities for employment and subsequently, skill development in Raigarh.

Table 370: Key Growth Sectors - Raigarh

#	Priority Sectors	Growth opportunities in skills development and employment
1.	Agriculture	<ul style="list-style-type: none"> Agriculture currently provides employment to 74.6% of the workers in the district. Paddy is the main produce of Raigarh. In addition, gram, ground nut, sunflower, potato, Brinjal, cashewnut, mango, jackfruit etc. are some of the important crops cultivated in the district which are produced by workers in the district. It is the largest incremental employer in the district accounting for around 31.1% of the total incremental demand for manpower.
2.	Mining and Quarrying	<ul style="list-style-type: none"> Manufacturing sector is currently the second largest sub-sector and is expected to grow at approximately 10.6% over the period 2012-22. Raigarh is endowed with a number of major minerals like Coal, Quartzite, Limestone and Dolomite. The total mineral revenue receipt of the district in the year 2012-13 was Rs. 26880.85 lakhs. This sector is anticipated to have an estimated incremental demand of around 0.44 lakh workers in Raigarh over the decade (2012-22), comprising around 21.2% of the total incremental demand for manpower.
3.	Manufacturing (mineral/metal based)	<ul style="list-style-type: none"> Manufacturing sector is currently the third largest sub-sector and is expected to grow at approximately 13.7% over the period 2012-22. The District is industrially developed and is famous for steel production. Raigarh has a number of steel and power plants such as Jindal Steel and Power Limited, Monnet Ispat & Energy Ltd. along with many other small and medium producers. This sector will have an estimated incremental demand for around 0.30 lakh workers in Raigarh over the decade (2012-22), comprising around 14.2% of the total incremental demand for manpower.
4.	Trade (Wholesale + Retail)	<ul style="list-style-type: none"> Trade (Wholesale + Retail) is anticipated to be one of the largest employers in the district, contributing around 10.3% of the total incremental demand for employment in the district. It is likely to provide employment to more than 0.21 lakh people over the decade (2012-22). The booming manufacturing industry in the district, especially power and steel and the presence of a number of micro and small ancillary units along with the growth in building and construction activities has enabled the trade of raw materials as well as finished products in the district resulting in increasing manpower demand in the sector. Also, increased repair and servicing activities of motor vehicles, household goods, computers, machinery etc. would further enable the manpower demand in the sector.
Source: Deloitte Analysis		

Considering the economic and skill landscape of Raigarh, the table below indicates the priority areas of focus for key stakeholders involved. These observations have been mainly derived from the growth opportunities identified above and through primary interactions with industry and industry association

representatives in the district along with inputs from the students, training institutes and government.

Table 371: Key Recommendations for Stakeholders - Raigarh

Stakeholder	Priority Areas
NSDC	<p>NSDC can focus the efforts of its training partners and prioritize it's funding in the following key sectors identified in the district, viz.</p> <ul style="list-style-type: none"> • Agriculture • Mining & Quarrying • Manufacturing – Mineral/metal based • Trade (Wholesale + Retail)
Private training providers	<ul style="list-style-type: none"> • There is a need for courses in mining & quarrying owing to the demand for more trained workers in the sector. Additionally, courses in agriculture, manufacturing – mineral/metal based and trade (wholesale + retail) can also be explored. • The skill development institutes in the district should collaborate with the Directorate of Agriculture, Directorate of Horticulture, Directorate of Animal Husbandry and Directorate of Fisheries for providing training in Agriculture and Allied sectors. • There is a need for design and delivery of bridge courses with a focus on communication, language, basic IT and soft skills to make students job ready as highlighted in youth survey as well. • There is a need to strengthen the current placement tie-ups/linkages with industry as well as employment exchange. • In order to promote self-employment in the district, entrepreneurship development courses in the high growth sectors identified may be introduced.
Government	<ul style="list-style-type: none"> • To encourage self-employment, the MSME-DI, Raipur should arrange multiple product-cum- process oriented programs in the district like Entrepreneurship Skill Development programmes (ESDPs), Entrepreneurship Development Programmes (EDPs), Industrial Motivation Camps (IMCs), BSDPs etc. for different groups of unemployed youth, people from weaker sections of the society, minorities, SCs & STs, technocrats, etc. with an objective of developing entrepreneurial qualities and preparing new entrepreneurs to setup their own small enterprises. • Engage with industry player like Jindal Steel and Power Limited, Monnet Ispat & Energy Ltd. for undertaking courses relevant to the mineral/metal manufacturing units for ensuring supply of sufficiently trained labour in the sector. • Focus on training or providing extension support services in agricultural products processing, forestry and animal husbandry (including dairy & poultry) for the workers dependent on Agriculture. The Directorate of Horticulture & Farm Forestry should arrange training and extension activities on areas like organic farming, soil conservation techniques; pest management etc. in the district owing to the dependence of the majority of the population on Agriculture.
Industry	<ul style="list-style-type: none"> • More industry interactions could be initiated in the mining & quarrying, trade (wholesale + retail) and mineral/metal manufacturing sectors in the district. • Industry players should provide inputs in curriculum for ITIs and skill development institutes to improve the practical component of learning. Approximately 68% of the students surveyed in Raigarh expressed their dissatisfaction with the alignment of the training/education currently provided by the educational institutes in the district with the potential job requirements of the employers. • The major private players as well as public sector enterprises in the state should undertake and encourage vocational training as part of their CSR activities either by partnering with the Skill Development Institutes for training or providing funds/resources for the same.

4.23 Raipur

4.23.1 District Profile

Raipur, the capital city of Chhattisgarh, is situated in the fertile plains of Chhattisgarh Region and is also one of the oldest cities. The district is part of Raipur division.

It is surrounded by Baloda Bazar District in North, Mahasamund in the east, Gariaband in the south-east, Dhamtari in South, Bemetara and Durg District in the West. The district has a total area of 6585 sq. km. comprising of 4.9% of the total area of the State.

The district is divided into 4 tehsils, 4 panchayat samitis, 390 gram panchayats, 545 villages and 215 patwari circles⁴¹⁶. 33.16% of the district is covered by forests, which is less than the state forest coverage of 41%⁴¹⁷.

Mahanadi is the principal river of the district, contributing to the fertile lands of Raipur.

Map 24: Raipur District



Table 372: Raipur District Profile

#	Indicator	Raipur	Chhattisgarh	% Share
1.	Area, in sq.km.	6585	135,190	4.9
2.	No. of sub-districts	4	149	2.7
3.	No. of inhabited villages	541	20126	2.7
4.	No. of households (lakhs)	4.63 ⁴¹⁸	56.51	8.2
5.	Average Land holding size (Ha)	1.40*	1.17	-
6.	Forest area cover	33.16% ⁴¹⁹	41.18%	-
Source: Census 2011, Directorate of Economics and Statistics- Govt. of Chhattisgarh, State of Forest Report 2011-Forest survey of India; Deloitte Analysis				
* Data is for undivided Raipur (including Baloda Bazar & Gariaband)				

⁴¹⁶ Brief Industrial Profile of Raipur District, Ministry of MSME

⁴¹⁷ Data is for Dhamtari & undivided Raipur (including Baroda Bazar & Gariaband)

⁴¹⁸ Deloitte Analysis (Divided according to the population ratio of Raipur, Baloda Bazar & Gariaband)

⁴¹⁹ Data is for Dhamtari & undivided Raipur (including Baloda Bazar & Gariaband)

4.23.2 Demography

As per Census 2011, Raipur has a population of 21, 59, 880 of which about 59.06% reside in urban areas, which is much higher than the state average of 23.24% making the district most urbanized. The decadal population growth during 2001-2011 was 32%, which is much higher than the population growth of 19.29%⁴²⁰ during the period 1991-2001. As of 2011, Raipur is ranked the most populous district of Chhattisgarh. The district is densely populated with 328⁴²¹ persons per sq. km. in comparison to the state average of 189 persons per sq. km. The district has a lower sex ratio at 961 as compared to the state average of 991. About 60.6% of the population is in the working age population class group.

Table 373: Demographic Indicators of Raipur

Demography	Raipur	Chhattisgarh
Population (2011)	2,159,880	25,545,198
Population 15-24 (2011)	4,52,163	51,44,257
Decadal Population Growth Rate (2001-11)	32% ⁴²²	22.61%
Population density per sq. km (2011)	328*	189
Percentage of Urban Population (2011)	59.06%	23.24%
Percentage of SC population (2011)	17.82%*	12.8%
Percentage of ST population (2011)	11.72%*	30.6%
Average household size	4.66*	4.52
Sex Ratio (2011)	961 ⁴²³	991
Working age population (15-59) as a percentage of total population, %	60.62%	60.1%
Per Capita Income	Rs 36760 ⁴²⁴	Rs.28263
Source: Census of India 2011, Directorate of Economics and Statistics- Govt. of Chhattisgarh & Chhattisgarh, Deloitte Analysis		
* Data is for undivided Raipur (including Baloda Bazar & Gariaband)		

Key Observations:

- ♦ Raipur is the most populous district of Chhattisgarh and has registered high (32%) decadal growth in population over the decade 2001-11.

⁴²⁰ Data is for undivided Raipur (including Baloda Bazar & Gariaband)

⁴²¹ *ibid.*

⁴²² Deloitte Analysis

⁴²³ *ibid.*

⁴²⁴ At 2004-05 constant prices, Deloitte Analysis

4.23.3 Economic Profile

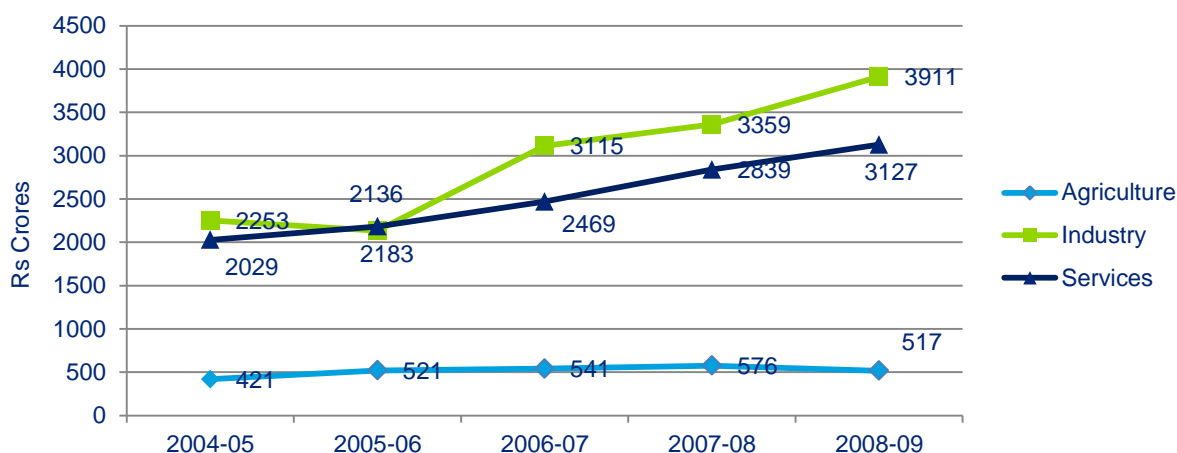
As per the analysis, Gross District Domestic Product (GDDP) of Raipur has grown at a CAGR of 12.6% between 2004-05 and 2008-09 which is higher than the state growth at 9.6%⁴²⁵ during the same period.

At Rs 7554.83 Cr., Raipur ranked 3rd in the state in terms of economic activity in 2009. The district contributed 10.95% to the Gross State Domestic Product in the same year⁴²⁶.

The economy of Raipur is pre-dominantly Industry sector based, with the share of the Industry sector in district economy being 51.8% in 2008-09. The shares of Services and Agriculture sectors in the district economy were 41.4% and 6.8% respectively. Both Agriculture and Services sectors have grown consistently over the period 2005-09. The Industry sector has shown the highest growth rate in the district over the period 2005-2009 with a CAGR of 14.8% followed by Services and Agriculture sectors which registered a CAGR of 11.4% and 5.3% respectively.

The sector-wise GDDP growth and distribution from 2005-09 is given in the figure below

Figure 395: Sectoral Share of GDDP, 2004-05 to 2008-09, Raipur



Source: Directorate of Economics and Statistics- Govt. of Chhattisgarh (2004-05 base price) and Deloitte Analysis

⁴²⁵ Directorate of Economics and Statistics, Chhattisgarh

⁴²⁶ Deloitte Analysis

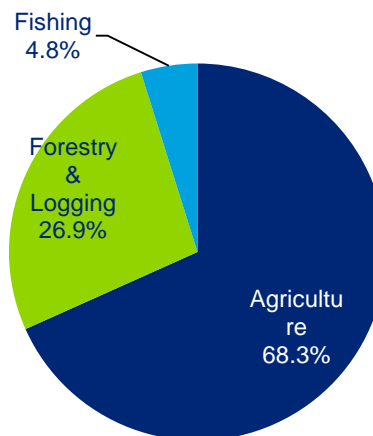
Agriculture sector

The Agriculture sector (agriculture, forestry & logging and fishing) contributed about 6.8% in the district economic profile in 2008-09. The sector has grown at a CAGR of 5.3% during the period 2004-05 to 2008-09.

Agricultural activities contribute 68.3% of the GDDP contribution in the Agriculture sector.

The major cereals grown in the district are rice and wheat. While rice is grown during kharif and Rabi seasons, wheat is grown only during the kharif season. Rice and wheat are the major contributors to total cereal production in Chhattisgarh. The tropical wet and dry climate of Raipur also favours the growth of pulses like arhar, urd, gram, peas, moong and tiwra. Raipur is the National Food Security Mission (NFSM) district for rice and pulses. Apart from cereals and pulses, horticultural produce like papaya, mango, banana, guava are also grown in appreciable quantities in the district.

Figure 396: Sub-sectoral break-up in Agriculture sector (2006-07), Raipur



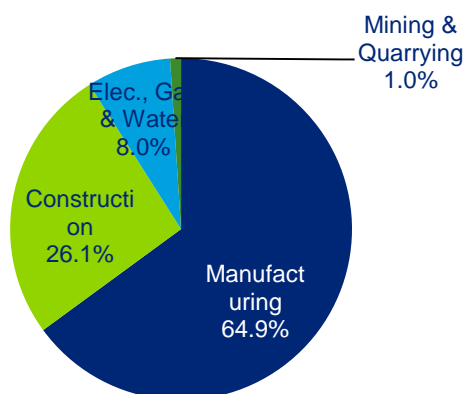
Source: Directorate of Economics and Statistics-Chhattisgarh, Deloitte Analysis

Industry sector

The contribution of Industry sector (mining & quarrying, manufacturing, construction, electricity, gas and water supply) to GDDP in 2008-09 was about 51.8%.

Manufacturing is the highest contributor to the Industry sector in Raipur with a sectoral contribution of around 65%. The district is one of the most industrialized districts in Chhattisgarh. It also has a number of large and medium sized companies in area of power, construction & chemicals etc. Jindal Group, Bharat Petroleum and Hindustan Petroleum are some of the major groups present in the district. Monnet is one of the major steel companies in Raipur. Ultratech Cement, Century Cement and Grasim are the major cement companies present in Raipur.

Figure 397: Percentage contribution to the Industry sector (2008-09)



Source: Directorate of Economics and Statistics- Govt. of Chhattisgarh, Deloitte Analysis

For promoting the growth of industries in the district, following initiatives have been undertaken by the Chhattisgarh State Industrial Development Corporation (CSIDC) in Raipur:

Industrial Growth Centres (IGCs) – Following Industrial Growth Centres have been established in Raipur for promotion of industries:

- ♦ **Industrial Growth Centre, Urla (Raipur)** - Industrial Growth Centre (IGC), Urla situated on the outskirts of Raipur is spread over an area of approximately 375 hectares including peripheral industrial areas of Sorora, Sondongri, Gondwara and Gogaon equipped with provision of infrastructure facilities such as roads, drainage, electricity, and water supply. At present, 418 Industries are already established in the IGC Urla with fixed investment of more than Rs. 425 crores providing direct employment to 11259 persons.
- ♦ **Industrial Growth Centre, Siltara (Raipur)** - Industrial Growth Centre, Siltara is situated 13 kms from Raipur spread over an area of approximately 1185 hectares. The major projects in the vicinity include sponge iron units, ferro alloy units, and cooking gas bottling plant. At present, 48 industries have been established in the growth centre with fixed investment of more than Rs. 716 crores providing direct employment to more than 2772 persons.

Industrial Areas – The established industrial areas in Raipur are:

- ♦ **Industrial Area, Bhanpuri-Rawabhata** – Industrial Area Bhanpuri-Rawabhata is situated near Raipur and is spread over an area of approximately 200 hectares equipped with infrastructure facilities such as electricity, road, water supply, drainage etc.

On-going Projects

Specialized Industrial Parks - Following Industrial Parks are being setup in the district with an objective of cluster development of thrust industries.

- ♦ **Metal Park** - Metal Park is being established at Rawabhata which is 12 kms from Raipur to cater to the demand for downstream products of iron & steel, power and cement plants. The first phase of the project is developed on an area of 46 hectares of land.
- ♦ **Apparel Park**- Raipur is one of the major cotton producing areas of the state. In an effort to promote and provide a thrust to the apparel industry in the state, an Apparel Park is developed in Bhanpuri at Raipur on 1.35 ha of land. The apparel park aims to provide a single roof for all apparel associated activities and give a boost to apparel industry. Proximity to ICD Raipur and wholesale cloth market of Pandri is an added advantage. The park is proposed to have an independent loading / unloading dock, common facility building, outer development, water supply, drainage system etc.
- ♦ **Gems & Jewellery Special Economic Zone** - Gems & Jewellery SEZ is proposed to be developed over an area of about 28 ha at the new capital area of Raipur close to the airport. The proposed SEZ is planned to be equipped with 'front-end' components for sales and marketing and 'back-end' components for manufacturing units.

Industrial Infrastructure Up-gradation Scheme (IIUS) - Industrial Infrastructure Up-gradation Scheme aims to provide quality infrastructure to selected functional clusters/locations through public-private partnership approach in an effort to enhance the international competitiveness of the domestic industry making them globally competitive. Industrial Growth Centres Siltara & Urla in Raipur district have been selected under this scheme as identified Steel Cluster and an administrative approval of Rs. 54.10 Cr. is received from Gol. Chhattisgarh Ispat Bhumi Ltd., Raipur (CIBL) has been formed as the Special Purpose Vehicle under Public-Private Partnership for implementation of the Project.

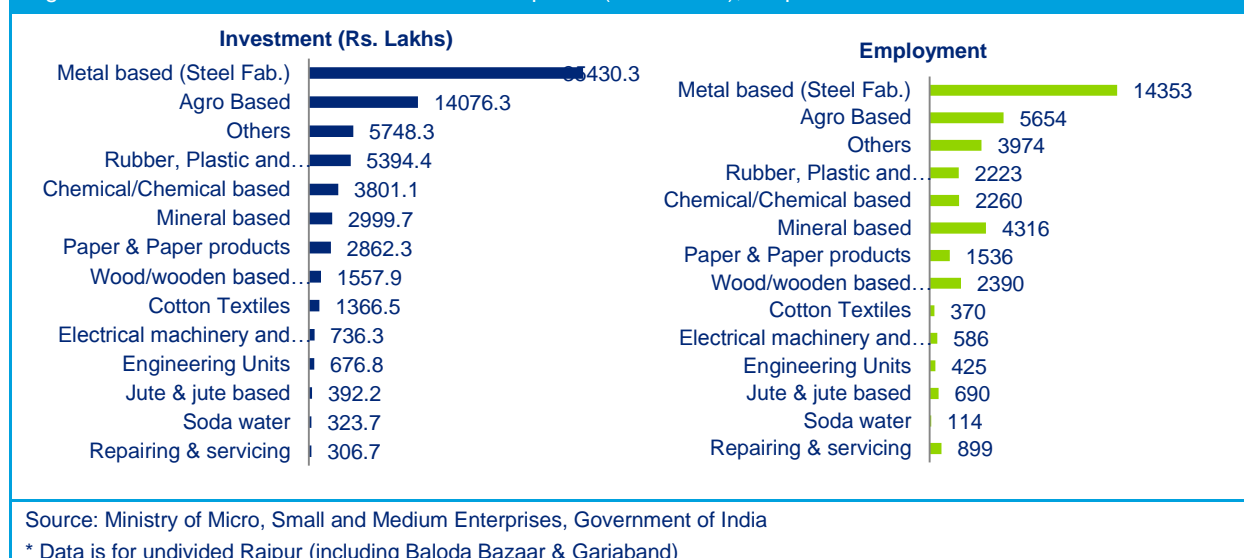
Poly Park, Tilda, Raipur - The Chhattisgarh State Industrial Corporation Limited has proposed the establishment of a Poly Park at Tilda tehsil of Raipur district which is set to spread over an area of 37 ha. It is planned to be developed as a cluster of polymer industries.

As per the list of MoU's shared by the State Investment Promotion Board (as on 31-03-2011), a total investment of Rs 37,462 crores has been proposed in the district. Out of this, Rs 15,713 crores has been

proposed for steel, sponge iron and other ferro alloy units while Rs 11,067 crores has been proposed for **cement industry**. In line with the investment proposed, fabrication based units and mineral based units will have a significant impact on the economy of the district in the coming decade. The sops announced by the government in FY 2014 budget (VAT on TMT steel bars reduced from 5% to 3%, entry tax on iron ore pellet, pig iron and steel scrap cut from 1% to 0.5% & reduced entry tax on furnace oil purchased from outside the state from 10% to 5%) would help in further strengthening the steel sector.

The investment in micro and small enterprises in the district is captured in the figure below. The key micro and small industries in the sector in terms of manpower employed as well as investments (Rs. Lakhs) are metal based (steel fabrication) units, agro based units, other manufacturing units, rubber, plastic & petro based units and chemical/chemical based units.

Figure 398: Investment in micro and small enterprises (in Rs lakhs), Raipur*



For the promotion and development of Micro, Small and Medium enterprises, IID Centres (Integrated Infrastructure Development Centres (IIDC) for Small Scale Industries) are being developed at Tendua in Raipur.

In terms of the availability of minerals, limestone is present in abundance in the district. Besides, 3 diamondiferous kimberlites pipes have been identified in Behradih and Payalikhand villages of Raipur district. The total mineral revenue receipt from mining of minerals in the district in 2012-13 was Rs. 4112.37 lakhs (Major Mineral: Rs. 1907.34 Lakhs, Minor minerals: Rs. 2098.67 lakhs and others: Rs. 106.36 lakhs)⁴²⁷.

⁴²⁷ Directorate of Geology & Mining, Chhattisgarh

Services sector

The contribution of the Services sector to GDDP was about 41.4% in 2008-09.

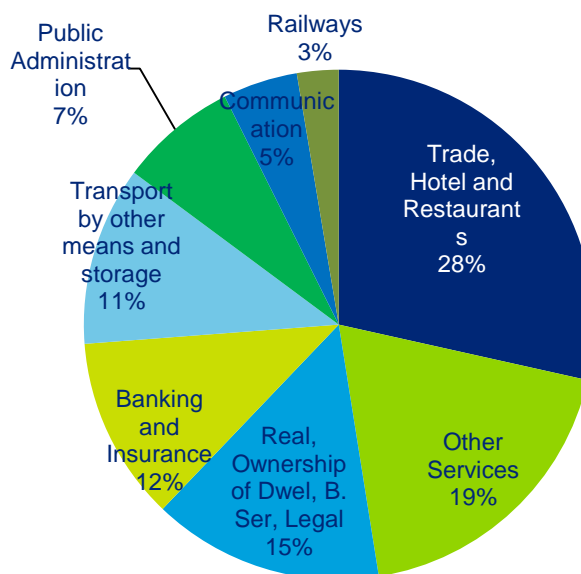
The key contributor to the Services sector in the district in 2008-09 was trade, hotels and restaurants contributing approximately 28% in the Services sector economic contribution followed by other services (19%), Real Estate (15%) and Banking & Insurance (12%).

Trade, hotel and restaurant sector in the district is boosted by the excellent transport facilities present between Raipur and the major cities of Chhattisgarh like Bhilai, Durg, Jagdalpur, Rajnandgaon, Bilaspur. Raipur is also well connected to the major cities of the country an excellent network of road, rail and air transport.

Naya Raipur is an upcoming world-class city which is being developed with a strong transportation network of railways and roadways. There are a total **5 national highways** passing through the district: NH-6 connecting Nagpur and Kolkata, NH 200 connecting Raipur to Chandikol, Orissa, NH 12A connecting Raipur to Jhansi, NH 217 connecting Raipur to Gopalpur, NH 43 connecting Raipur to Natavalasa, Andhra Pradesh. The airport at Raipur connects it to most of the major airports of India.

With a CAGR of about 19.8% and 16.9% over the period from 2004-2009, Banking & Insurance and Communication were amongst the fastest growing sectors in the district.

Figure 399: Sub-sectoral break-up of Services sector (2008-09), Raipur



Source: Directorate of Economics and Statistics-Govt. of Chhattisgarh, Deloitte Analysis

Key Observations:

- At Rs 7554.83 Cr., Raipur ranked 3rd in the state in terms of economic activity in 2009. The district contributed around 11% to the Gross State Domestic Product in the same year.
- The economy of Raipur is pre-dominantly Industry sector based, with the share of the Industry sector in district economy being 51.8% in 2008-09. The shares of Services and Agriculture sectors in the district economy are 41.4% and 6.8% respectively.
- The Industry sector has shown the highest growth rate in the district over the period 2005-2009 with a CAGR of 14.8% followed by Services and Agriculture sectors which registered a CAGR of 11.4% and 5.3% respectively.

4.23.4 Employment Profile

Raipur is the most populous district in Chhattisgarh in the year 2011, accounting for nearly 8.5% of the state's population.

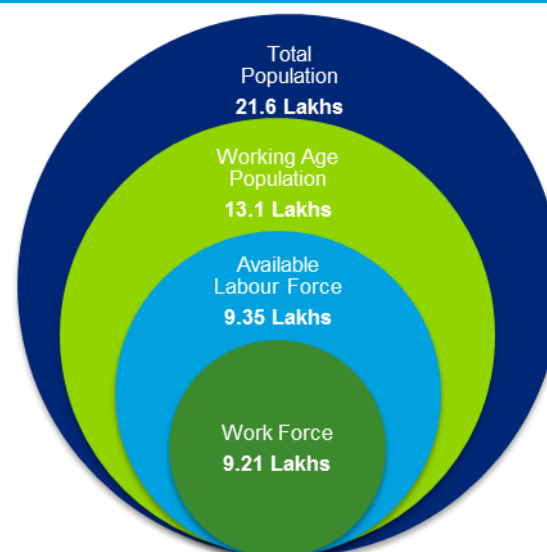
The adjacent figure summarizes the estimated workforce in Raipur in the context of the total population of the district.

Out of the total population of 21.6 Lakhs, the working age population (between 15-59 age group) constitutes nearly 61%.

Based on the labor force participation rate and the worker participation rate estimates for the state, the available labour force is estimated to be 9.35 lakhs, and the workforce is estimated at 9.21 lakhs or nearly 70% of the working age population.

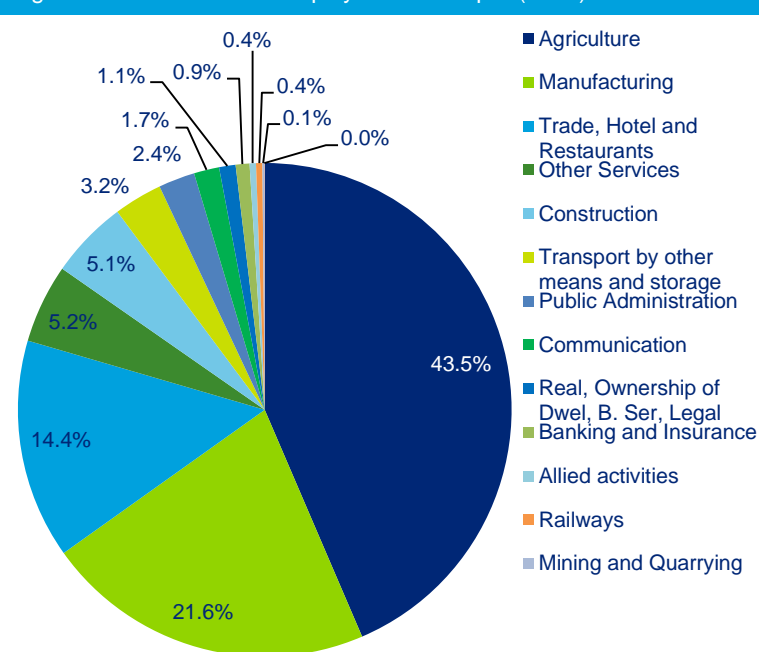
In 2011, around 44% of the workforce in Raipur district is engaged in Agriculture sector. The Services sector which contributed about 43.8% of the district GDDP in the year 2011 is the second highest employer in the district employing around 29.1% of the workforce.

Figure 400: Total Workforce in Raipur (2011)



Source: Census 2011 and Deloitte Analysis

Figure 401: Sector wise employment in Raipur (2011)



Source: Census 2011 and Deloitte Analysis

The Industry sector employed around 26.9% of the total available workforce in Raipur in 2011 contributing approximately 50.3% in the district economic profile.

The sector-wise employment of Raipur for the year 2011 has been shown in the adjoining figure. Agriculture contributed to around 43.5% of the total employment in the district. Manufacturing sector was the 2nd highest employer in the district employing around 21.6% of the available workforce followed by trade, hotels and restaurants (14.4%), other services (5.2%) and construction (5.1%).

The top five sectors in the district in terms of employment account for around 90% of the total employment

of the available workforce in Raipur in 2011.

4.23.5 Education Infrastructure

Elementary education in the district has considerably improved largely due to the effort of the department of education in collaboration with the Sarva Shiksha Abhiyan. Raipur has a higher literacy rate of 81.42%⁴²⁸ in comparison to state average of 70.3%. It marks a significant improvement over literacy rate of 68.51% in 2001⁴²⁹. In 2011⁴³⁰, male & female literacy rates stood at 89.18% & 73.34% respectively, both figures considerable improving since 2001⁴³¹, where figures stood at 81.97% & 54.81% respectively.

Figure 402: Literacy rate 2011 (by residence), Raipur

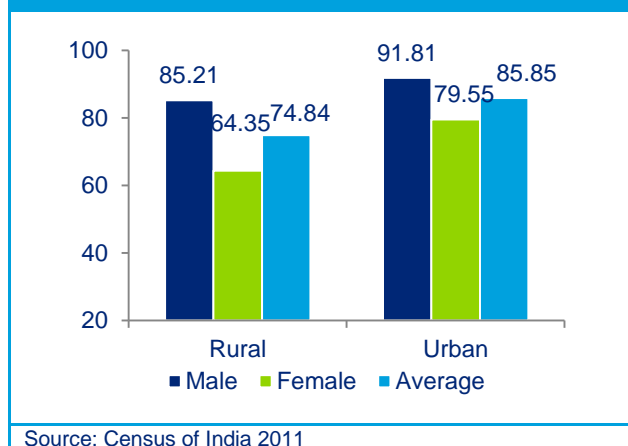
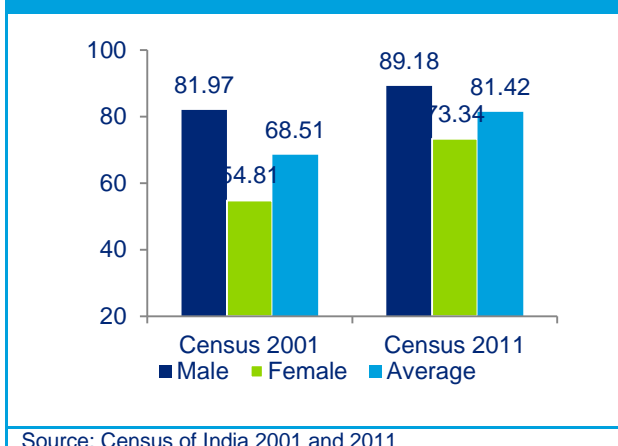


Figure 403: Literacy rate 2011 (by gender), Raipur



School Education

Elementary education in the district has considerably improved largely due to the effort of the department of education in collaboration with the Sarva Shiksha Abhiyan. Net enrolment ratio at 74.1% at the upper primary level is higher than the state enrolment ratio of 67.8%.

Table 374: Status of school education infrastructure in Raipur, 2013

#	Educational Statistics	Units in Raipur	Units in Chhattisgarh ⁴³²	% Share of District in State
1	Primary School	1093	35588	3.1%
2	Upper Primary School	809	16442	4.9%
3	Secondary School	126	2632	4.8%
4	Higher Secondary School	341	3548	9.6%
5	NER – Primary (2010-11)	100%	98.0% ⁴³³	
6	NER - Upper Primary (2010-11)	74.1% ⁴³⁴	67.8%	

Source: DISE and Directorate of Economics and Statistics, Government of Chhattisgarh

⁴²⁸ Census 2011; Deloitte Analysis

⁴²⁹ Data is for undivided Raipur (including Baloda Bazar and Gariaband)

⁴³⁰ Census 2011; Deloitte Analysis

⁴³¹ Data is for undivided Raipur (including Baloda Bazar and Gariaband)

⁴³² 2010 data, Directorate of Economics and Statistics, Government of Chhattisgarh

⁴³³ Data is for 2008-09

⁴³⁴ Data is for undivided Raipur (including Baloda Bazar & Gariaband)

Vocational Education

For vocational training, Raipur has a total of **13 ITIs in the district**, of which, 7 are Government Industrial Training Institutes and 6 Private Industrial Training Institutes. There is an exclusive woman ITI in Raipur. The total capacity of the ITIs is 2416. The capacity of the Govt. ITIs is 1776 while that of the Private ITIs is 640. Electrician and Fitter courses have the maximum units affiliated among ITIs.

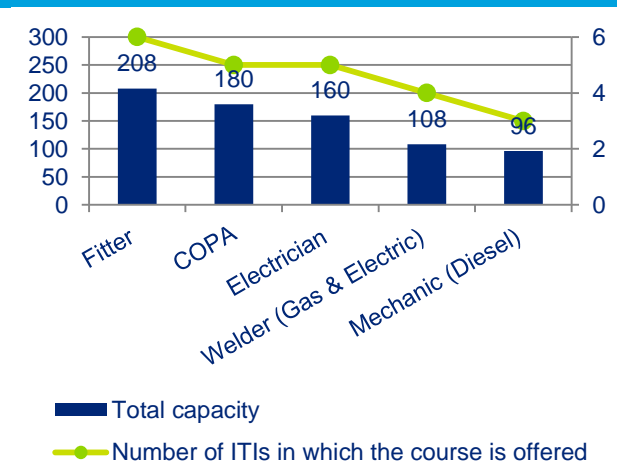
The number of courses available in the ITIs and their capacity are listed in the table below:

Table 375: ITIs in Raipur and their capacity

Name of ITI	Number of courses offered	Total Units affiliated	Total Capacity
Government Industrial Training Institute, Raipur	21	36	560
Government Industrial Training Institute (Women), Raipur	5	8	136
Govt. Industrial Training Institute, Aarang	1	2	32
Government Industrial Training Institute, Dharsiva	5	9	144
Government Industrial Training Institute, Mana	18	44	664
Government ITI Tilda Neora	3	6	96
Government ITI Abhanpur	5	9	144
Gyansagar Industrial Training Centre	2	5	80
Agashe Industrial Training Centre	3	6	104
Balaji ITC, Bhatapara	3	8	128
Agarsen ITC	1	8	128
A.T. College of Electronics ITC	1	2	32
Shri Rawatpura Sarkar ITC	4	10	168
Total	29*	153	2416
Source: Department of Higher and Technical Education-Chhattisgarh; Deloitte Analysis			
*Total number of different courses offered by ITI's in Raipur			

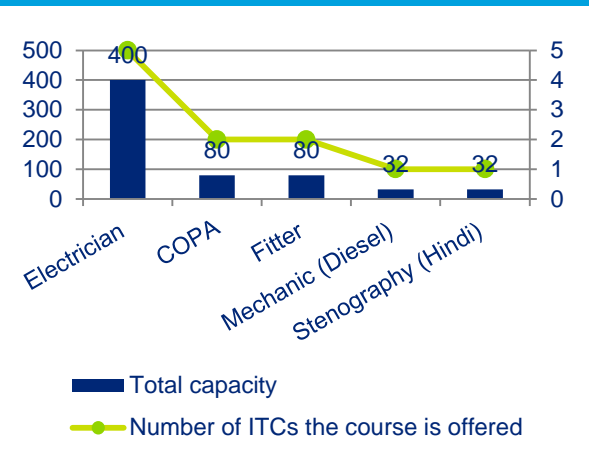
The major courses offered in the ITIs and their capacity in Raipur is given in the figure below:

Figure 404: Major courses offered in Govt. ITIs and their capacity in Raipur



Source: Department of Higher and Technical Education- Chhattisgarh; Deloitte Analysis

Figure 405: Major courses offered in Private ITIs and their capacity in Raipur



Source: Department of Higher and Technical Education- Chhattisgarh; Deloitte Analysis

The Apparel Export Promotion Council has set up Apparel Training & Designing Centre (ATDC) at Raipur. The training centre is catering to the manpower requirement of the apparel industries in Chhattisgarh and outside.

According to Chhattisgarh State Skill Development Mission Website, as of 12th March, 2014, Raipur has 89 Vocational Training Providers (VTPs) under which there are 1988 registered beneficiaries. The following table highlights the courses offered in vocational education, which currently meet requirements of 19 sectors.

Table 376: Courses offered in vocational education, Raipur

Sector	ITI trades and Units affiliated	Courses Offered by VTPs
Auto and auto components Electronics and IT hardware Chemicals and pharmaceuticals	Auto Mobiles(12), Draughtsman(Mechanical)(2), Electrician(35), Electronics Mechanic(3), Fitter(18), Information Technology and Electronic System Maintenance(1), Electronics and computer hardware mechanic(4), Mechanic and machinist (24), Turner(5), Welder(9)	Electrical, Electronics, Fabrication, Automobile, Automotive, Repairs, Production and manufacturing, Industrial chemistry, Chemical
IT and ITES, Tourism, hospitality and travel, Organized retail Media and entertainment, Banking, financial services and insurance	Computer Operator and Programming Assistant(13), Desk Top Publishing operator(1), Stenography(11), Secretarial practice(2), Driver cum mechanic (4), Stenography(6)	ICT, Soft skill, Banking & Accounting, Hospitality Media sector, Fashion design Printing

Textiles and clothing, Leather and leather goods, Food processing	Cutting and Tailoring(1)	Textile sector, Garment making Toy making, Manufacturing of ethnic Indian foods, Sericulture Textile silk, Leather and sports goods, Food processing and preservation
Infrastructure (Transport, Energy, Water & Sanitation, Communication, Social & Commercial), Building, construction and real estate, Transportation, logistics, warehousing and packaging Construction material and building hardware, Furniture and furnishing	Architectural assistant(2), Carpenter(2), Draughtsman(Civil)(2), Surveyor(1)	Construction, Courier and logistic Retail
Healthcare Services Education and skill development Unorganized sector (particular reference to agriculture, security, plumbing, domestic worker, foundry, etc.)	Mechanic (Refrigeration, air conditioning, radio, television etc.) (8), Interior decoration and designing (2)	Paint, Refrigeration & Air conditioning, Beauty culture and hair dressing, Security sector Agriculture, Animal husbandry Home decoration

The following table highlights the NSDC partners present in Raipur as of January 2014 and the courses offered by them.

Table 377: NSDC partners present in Raipur

Name of Partner	Sectors in which course is offered	Courses offered
AISECT	IT/Software	<ul style="list-style-type: none"> ♦ Diploma in Computer Applications (DCA) ♦ Post Graduate Diploma in Computer Applications (PGDCA) ♦ Diploma in Computer Programming and Applications (DCPA) ♦ Certificate in Word Processing / Typewriting (Hindi/English) (CWP) ♦ Certificate in Computer Applications (CCA)
	ITES-BPO	<ul style="list-style-type: none"> ♦ Diploma in Computer Applications (DCA) ♦ Post Graduate Diploma in Computer Applications (PGDCA) ♦ Diploma in Computer Programming and Applications (DCPA) ♦ Certificate in Computer Applications (CCA) ♦ Certificate in Office Automation and Internet ♦ Certificate in Computerized Financial Accounting
	Electronics & IT Hardware	<ul style="list-style-type: none"> ♦ Advance Diploma in Computer Hardware and Networking (ADCHN)
TMI Group	Chemicals and pharmaceuticals	<ul style="list-style-type: none"> ♦ MDO Training Programme
	Banking/Insurance and finance	<ul style="list-style-type: none"> ♦ LIC-Rear Advanced
	Organized Retail	<ul style="list-style-type: none"> ♦ Sales Associate ♦ Floor Associate
Source: NSDC		

Higher Education

Raipur can be considered as one of the **key higher education hubs in the state of Chhattisgarh**. There are a total 7 universities in Raipur. The district hosts some of the prominent educational institutions in the country like Indian Institute of Management (IIM, Raipur), National Institute of Technology (NIT, Raipur), and National Law School (NLS, Raipur). It also has the Pandit J.N.M. Medical College. Out of total 590 colleges in the state, 115 (19.5%) are in the district of Raipur. This is much higher in comparison to the share of population of Raipur to the state (8.5%). The break-up of the number and capacity of higher education institutes in Raipur is given below. Besides these, Raipur also has a girl's polytechnic Institute.

Table 378: Number and Capacity of Higher Education infrastructure in Raipur

#	Colleges	Number	Capacity*
1	Arts, Science and Commerce	49	13000
2	Medical**	1	150
3	Dental	1	100
4	Nursing	10	500
5	Other medical	8	478
6	Teacher Education	14	2120
7	Law	2	-
8	Management and Technical	26	9000
9	Agriculture	4	206
	TOTAL	115	-
*Source: University/College websites			
** Other medical includes BPT, BAMS, BHMS, BUMS courses			

Key Observations:

- ♦ Raipur may be considered as the educational hub of Chhattisgarh with the presence of a significantly high proportion of colleges in the state as compared to its population share and also due to the presence of institutes of national repute. Nearly 20% of the higher educational institutes of Chhattisgarh are located in Raipur.

4.23.6 Youth Aspirations

The FGD in Raipur was conducted at the Government Girl's Polytechnic, Bairan Bazar, Gracious College of Nursing and Girola village. The key observations about aspirations of the youth of the district are highlighted below:

Table 379: Youth Aspiration – Key Responses - Raipur

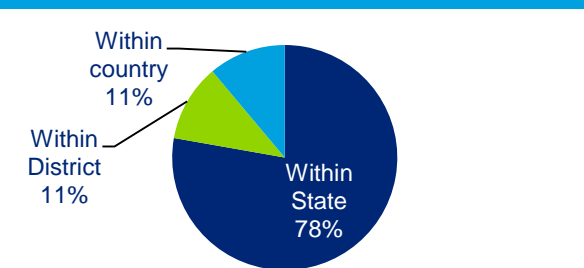
Parameters	Responses
Job Preference	Most of the youth (students) have indicated their desire to get employment with the government sector . This is on account of better security that government job offers.
Preferred Course	While boys were more interested in computer related courses , beautician and tailoring courses appear to be most popular among the female youth in the district.
Migrating for job	An overwhelming majority of youth has indicated their preference to stay within the district for the job.
Salary Expectations	The average monthly salary expectation of the youth ranges between Rs 10000 p.m. to Rs.15,000/-
Areas of concern/ aspirations- Infrastructure	<p>During the FGD, following views were expressed with respect to infrastructure in educational institutions:</p> <ul style="list-style-type: none"> ♦ Youth expressed the inadequacy of laboratories and computers in schools. ♦ The unavailability of latest technology and equipment for training in the district is one of the areas highlighted by the youth. ♦ Inadequate provisions for drinking water and separate toilet for girls and boys in the schools.
Areas of concern/aspirations- Course Curriculum	<ul style="list-style-type: none"> ♦ Majority of the youth do not have any career plans. It was expressed that there is a lack of government intervention in counseling them from choosing among various career options. ♦ There is lack of information among the youth regarding employment opportunities in the district.
Other concern	<ul style="list-style-type: none"> ♦ Most of the people are not aware of skill development training / initiatives taken by government in the district. ♦ Some of the youth articulated that, there are not sufficient employment opportunities available in the district after having passed out 10th / 12th level or ITI diploma. ♦ An overwhelming majority of the population have desired a preference for employment over self-employment.
Suggestions given by youth	<ul style="list-style-type: none"> ♦ The youth expressed to address the issue of lack of computer programs in the district. There is a strong desire among the youth to work in IT domain. ♦ The youth expects initiative to improve infrastructure of colleges. ♦ Youth expressed that Govt. should take measures to involve more young people in education and provide employment to the people who are class 10 and 12 pass. ♦ Organizing regular career counseling and guidance programme for the rural youth will help them plan for their career and choose a career path.

A survey was conducted with youth at gram panchayat level & those coming out from various educational institutions (Government & private) to understand & capture their aspirations. The findings are presented below:

Job preference by youth

The majority of the youth we surveyed (78%) prefer to get a job within their home district as is evident from the corresponding figure. Approximately 11% of them gave their preference of job location within their state of residence and another 11% within country. The survey highlights the fact that around **89% of the youth surveyed wanted to get a job within Chhattisgarh** thus demanding and necessitating the creation of suitable positions and absorption capacity for them in the employment market. High rate of migration for employment related purpose can be least expected outside the state.

Figure 406: Job Preference by Youth



Source: Deloitte Analysis

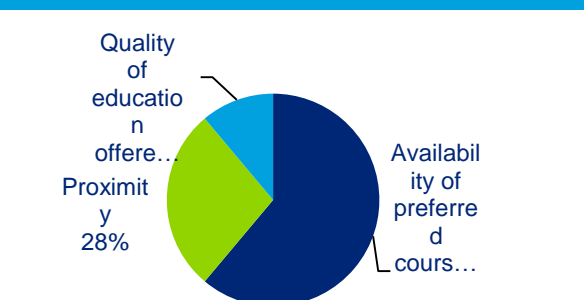
Parameter for Institute Selection

Most of the students (**about 61%**) opted for an institute based on the **availability of preferred courses**. Around 28% of the students chose institutes because of their proximity, while 11% of the students chose the institutes based on their reputation for good quality of education.

Youth Perception Mapping

Youth perception mapping was undertaken to understand their level of satisfaction with either their current institute or their experience and feedback on the available educational infrastructure. The results are summarized below:

Figure 407: Parameter for Choice of Institute



Source: Deloitte Analysis

High satisfaction with placement / jobs available post training: About 67% of the students surveyed were satisfied with the placements, while 22% of them were not satisfied with the job available post training. However, the students felt that the placement scenario could be further improved through tie-ups of the institutes with industries

Non-Availability of latest technologies and equipment for training: Around 72% of the students were not satisfied with the available technology & equipment for training in the institute. Most of the equipment was outdated. For appropriate level of skill development, modern equipment is needed. Also the number of available equipment was not enough. Hence the students felt that the institutes should be adequately equipped and upgraded with latest technology.

Satisfaction with institute's faculty in teaching: Around **83% of the students** were satisfied with the quality of teaching by the faculty of the institute. However some students felt that the numbers of faculty members were less in some of the high demand courses. Only 6% of the students, most of them being rural youth, felt that the institute lacked qualified faculty.

Satisfaction with access to information to make an informed career choice: **72% of the students opined** that they had access to information and were properly counseled to make an informed career choice. A few students demanded training camps and counseling from thought leaders to help them choose proper career path.

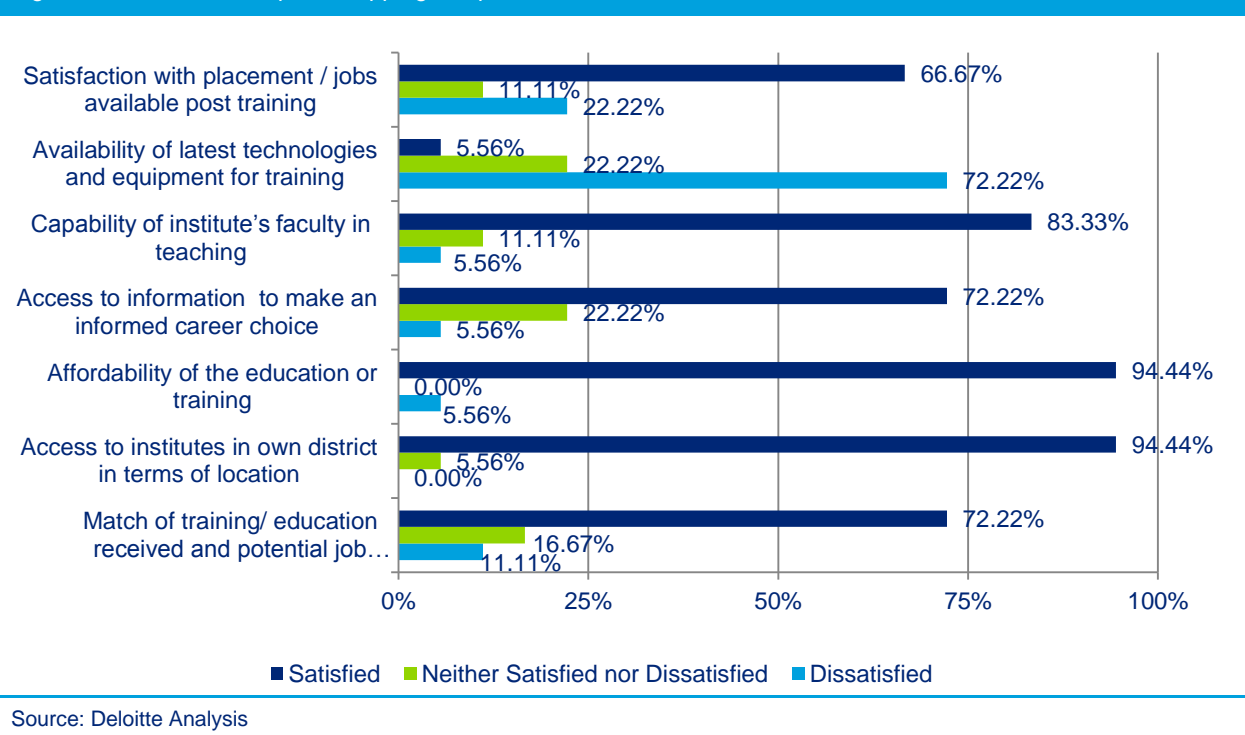
Affordability not as high a concern as quality and value for money in education or training:

Approximately 94% of the students felt that educational institutes were affordable in terms of the fees charged by them. But many of them were not satisfied in terms of infrastructure and quality of training programme offered by the institutes.

Access to institutes in terms of location is not an issue: Approximately **94% of the students** surveyed **were satisfied** with the accessibility of the educational institutes in terms of location. They found the institute to be located in an accessible area and safe in terms of the duration of classes. This may be due the fact that Raipur is one of the educational hubs of Chhattisgarh. Hence there are a large number of educational institutes spread throughout the district. The rural youth demanded more institutes in rural areas.

Satisfaction with utility of post school training/education received in terms of the job performance: Approximately 72% of the students surveyed believe in the utility of post school training/education received in terms of the job requirement and vouch for that. Thus given the presence of adequate infrastructure and facilities, students believe that post-school training prepares them according to the requirements of the job.

Figure 408: Youth Perception Mapping, Raipur



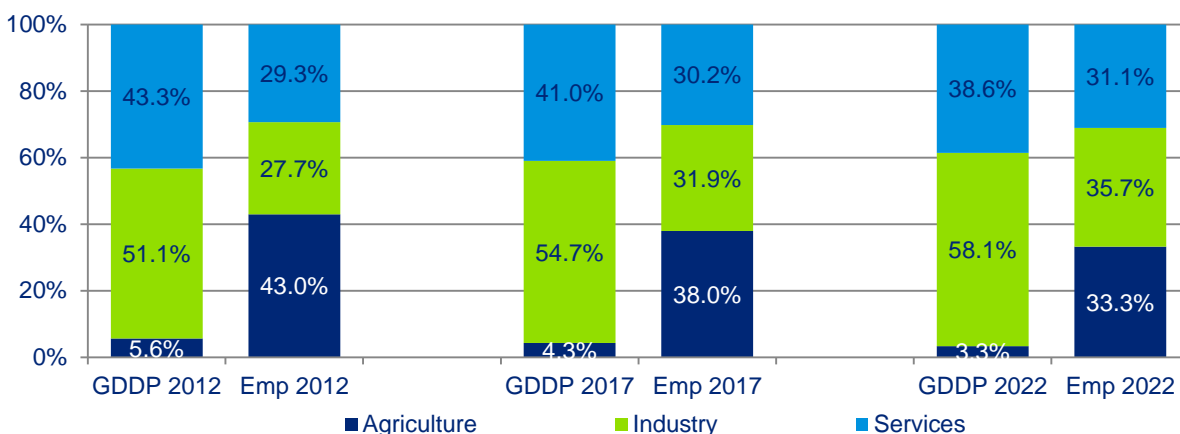
Key Observations:

- ♦ Govt. Jobs were preferred over private, the expected salary ranges from Rs. 10,000- Rs. 15,000/-.
- ♦ Girls preferred beauty parlor service; cutting, tailoring, sector was the most preferred sector.
- ♦ Among boys, computer related courses was highlighted as most preferred course
- ♦ Need for updating course content & creating linkages for placement was strongly expressed
- ♦ Need to address Infrastructure gaps - particularly updating the laboratory with latest computers, tools and equipment was expressed
- ♦ Most of the available equipment was outdated. The need for updating the laboratory with latest computers, tools and equipment was expressed
- ♦ Youth are not aware about the different Government initiatives on skill development
- ♦ The need for career counseling prior to admissions was strongly expressed by the youth

4.23.7 Skill Gap Assessment

The working age population (15-59) constituting 60.6% of total district population in 2011, is expected to increase to 64.3% by 2022. Demand for jobs is expected to increase leading to the need for job creation. Similarly, to reap this demographic dividend, supply of labour must be adequately skilled.

Figure 409: Comparison of Sectoral share in GDDP & Employment, Raipur



Source: Deloitte Analysis

Based on our analysis and primary interactions, the Agriculture sector is expected to be an important sector in terms of providing employment in the district and would account for the largest share of workforce till 2017. However, if the trends in employment continue, in 2021-22, the share of employment across the Agriculture sector is expected to decline to 33.3% as compared to 43.0% in 2012 and the sector is likely to be the second highest employer in the district.

The Industry and Services sector employment share are estimated to increase to 35.7% and 31.1% respectively, as indicated in the table above. The Industry sector is anticipated to be the chief employer in the district by 2022. This trend appears to be in line with the national trend as well where people are moving out of the Agriculture sector and moving into the Industry and Services sectors respectively.

Incremental Human Resource Demand

As per the methodology, the total incremental demand for manpower in Raipur from 2012 to 2022 is expected to be around 4.26 lakh. Following table provides the break-up of the incremental demand for manpower in Raipur as per the skill levels required.

Table 380: Estimated Incremental Human Resource Demand ('00) by Skill Level in Raipur

	2012-17	2017-22	Total
Skilled	374	495	869
Semi-Skilled	792	996	1,788
Minimally Skilled	742	862	1,604
Total	1,908	2,353	4,261

Source: Deloitte Analysis

Some of the key trends observed on the demand side include

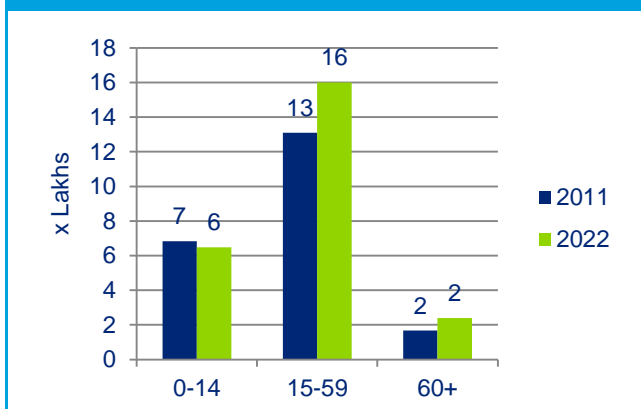
- ♦ *Manufacturing (primarily mineral/metal based) will be the largest incremental demand generating sector (25.0%) in the district with demand largely for the semi-skilled workers (60%).*
- ♦ *Within the Industry sector, Building and Construction (17.5%) is another key sector in terms of the incremental demand for manpower.*
- ♦ *In the Services sector, the sectors expected to employ maximum incremental demand for workforce include trade (9.8%), BFSI (7.3%) and Communication (4.3%).*
- ♦ *Agriculture sector is expected to employ around 13.1% of the total demand for incremental workforce in the district with demand largely in the minimally skilled workers (87%).*
- ♦ *Analysis of formal and informal employment indicates that the incremental demand for manpower in formal sector would come mainly from Manufacturing (primarily mineral/metal based units), Building & Construction, BFSI, Trade (Retail + Wholesale) and Public Administration*
- ♦ *Majority of demand for incremental manpower in the informal sector is projected to come from Agriculture, Manufacturing (primarily mineral/metal based units), Building & Construction and Trade (Retail + Wholesale).*

Table 381: Incremental Human Resource Demand ('00) by Skill Level in Raipur - Key Sectors

Table 6.6: Incremental Human Resource Demand (00's) by Skill Level in Various Key Sectors									
#	Key Sectors	2012-17				2017-22			
		Skilled	Semi-skilled	Minimally Skilled	Total	Skilled	Semi-skilled	Minimally Skilled	Total
1	Manufacturing (Mineral/ Metal based)	97	291	97	486	116	349	116	581
2	Building & construction	46	122	137	305	66	177	199	442
3	Agriculture	8	28	246	283	8	27	238	274
4	Trade (Retail + Wholesale)	30	101	71	202	32	107	75	215
5	BFSI	53	48	5	107	103	92	10	205
6	Communication	16	31	31	78	21	42	42	104
7	Transportation & logistics/ warehousing/ packaging	7	21	43	72	8	24	49	81
8	Others	116	148	111	376	140	177	133	450
9	Total	374	792	742	1,908	495	996	862	2,353
Overall Incremental Demand					4,261				
Source: Deloitte Analysis									

Incremental Human Resource Supply

Figure 410: Age wise distribution of population, Raipur - 2011 and 2022 (projected)



Source: Census 2011 and Deloitte Analysis

The population of Raipur is expected to increase from 21.6 lakhs in 2011 to 24.9 lakhs in 2022. The adjacent figure provides the current and projected population across various age groups. As per the analysis, the number and proportion of children in 0-14 age group is projected to decrease by about 35,000 children, amounting to a decrease of 5.14% between 2011 and 2022. This will have important bearing on the government policies and initiatives regarding primary and secondary schooling, and on the demand for vocational and higher education in future.

The number of persons in the working age group is expected to increase by 2.9 lakh during the

same period. This represents a potential demographic dividend for the state with a large increase in the employable population. On the other hand, it presents a huge challenge for the state to make available higher education and skill development facilities as well as ensure productive employment opportunities for its population.

As per the methodology, the estimated incremental manpower supply over a period of 10 years (2012-22) will be around 3.35 lakhs. Incremental manpower supply can be further classified into skilled, semi-skilled and minimally- skilled as per the education qualifications and estimated output of educational and vocational training institutes in the district.

Table 382: Estimated Incremental Human Resource Supply ('00) by Skill Level in Raipur

	2012-17	2017-22	Total (2012-22)
Skilled	591	631	1,222
Semi-Skilled	345	363	707
Minimally Skilled	740	682	1,422
Total	1,675	1,676	3,351

Source: Deloitte Analysis

Some of the key trends observed on the supply side include

- Proportion of incremental supply of minimally skilled manpower is 42.4%, compared to 36.5% of skilled and 21.1% of semi-skilled manpower (2012-22)
- Raipur has significant share of universities (7/19) and higher educational institutes (19.5%) in state which contributes to high supply of skilled manpower in the district.
- The supply of semi-skilled workforce is estimated to increase over the two time period which is in-line with the current focus of government in improving the skill development space of the state.
- The proportion of minimally skilled workers in the workforce is estimated to decrease from 44% over 2012-17 to 41% over 2017-22. From a skilling perspective, this is an important target segment for training so that they can positively contribute to the economy.
- Impact of Migration is expected to be inward and accounts for around 2.1% of the total supply. According to primary interactions, inward migration is primarily in minimally skilled segment.

Incremental Demand Supply Gap

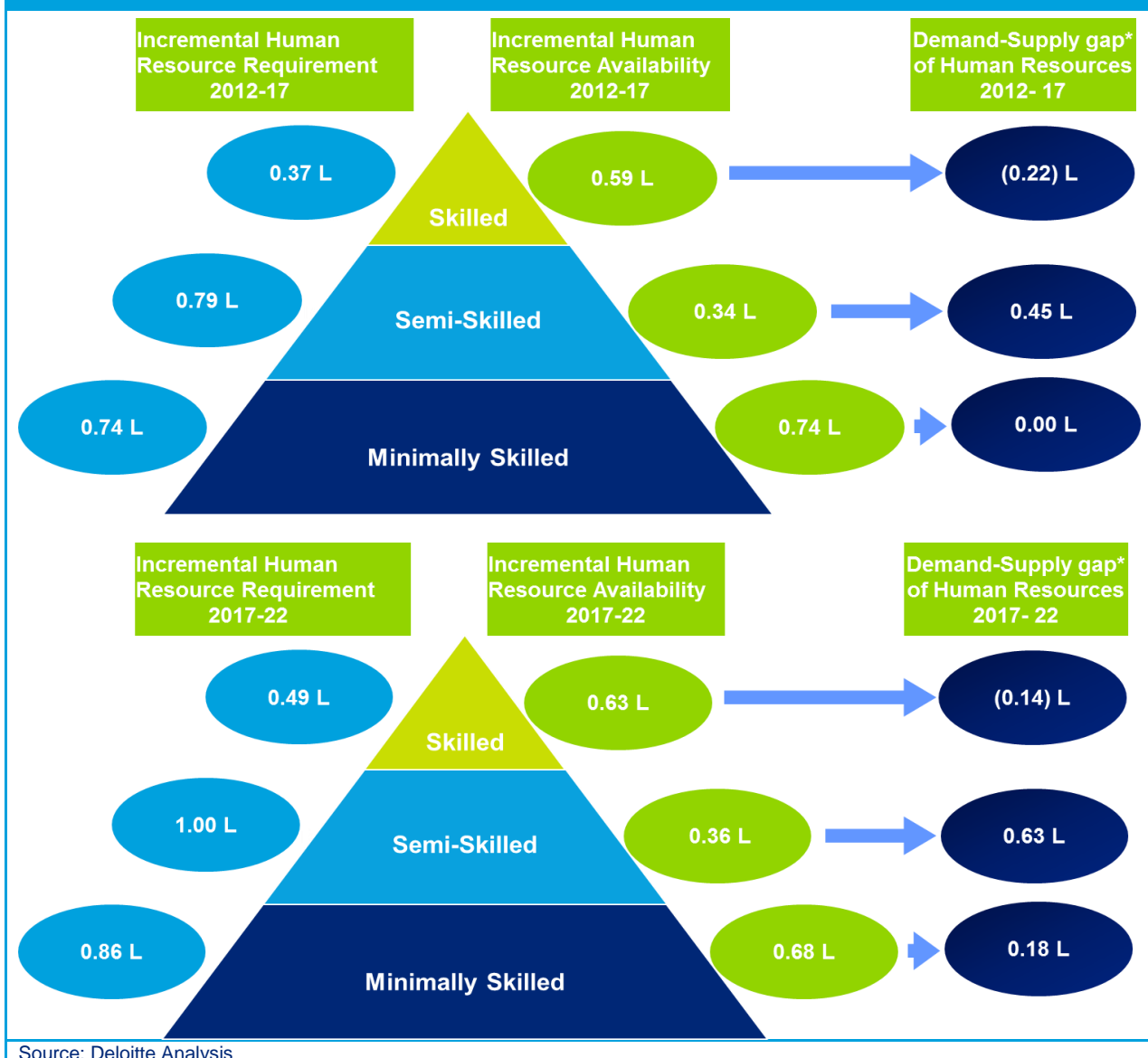
During the period 2012-22, the incremental human resource demand in Raipur across all skill levels is estimated to be 4.26 lakh while the supply is projected to be 3.35 lakh indicating thus a deficit of 0.91 lakh people (refer table below). There is estimated to be an excess supply over demand across the skilled segments in Raipur owing to the high share of the district in the higher education space of Chhattisgarh.

Table 383: Projected Demand Supply gap ('00) by skill levels in Raipur

#	District Skill Gap	2012-17				2017-22			
		Skilled	Semi-skilled	Min. Skilled	Total	Skilled	Semi-skilled	Min. Skilled	Total
1	Incremental HR Requirement (Demand)	374	792	742	1,908	495	996	862	2,353
2	Incremental HR Availability(Supply)	591	345	740	1,675	631	363	682	1,676
3	Demand-Supply Gap	(217)	447	3	233	(136)	633	179	677
Overall Demand- Supply Gap					910				
Source: Deloitte Analysis									

During the period 2012-22, the incremental manpower demand supply gap of the district (across all sectors mentioned above) is expected to be a deficit of about 0.91 lakh people with the excess supply across skilled segment as shown in the following figure.

Figure 411: Incremental Demand-Supply Gap (in lakhs), Raipur



Some of the key trends observed on the demand-supply gap include

- ♦ The composition of the human resource demand supply gap in the district over the two different time periods i.e. 2012-17 and 2017-22 is anticipated to remain the same.
- ♦ The excess supply in the skilled segment is expected to continue over the decade. This is in line with presence of better education facilities in the district. However, even in cases of excess supply, it is pertinent to note that it does not imply industry demand for skills is being sufficiently met. Employability linked skills have emerged as a key area of concern among industry. The changing

trends of the sector including use of new technology and practices imply a need for reskilling and up skilling of existing workers.

- ♦ There seems to be **mismatch between outputs** from higher educational institutions in the district (56% in general degree courses) **to job specific skills** required by sectors having high demand for skilled labor. Due to the excess supply, skilled workers may need to seek employment opportunities outside the district.
- ♦ There is likely to be a deficit of semi-skilled manpower in the district as compared to the demand across various job roles. This may result in some intra state migration to Raipur in search of employment opportunities.
- ♦ As indicated in the figure, the supply of minimally skilled human resources is likely to decrease in the period 2017-22 from 2012-17 owing to the greater focus of the state on improving school education, and providing an impetus in the skill development space. However, there is estimated to be a deficit of minimally skilled manpower in the district in the period 2017-22. This will result in migration of people from the backward districts, which have an excess supply of minimally skilled workers, to cities like Raipur in search of employment opportunities

Qualitative Skill Gaps

The qualitative skill gaps that were highlighted during our primary interactions with industry at Raipur are provided in the table below.

Table 384: Qualitative Skill Gaps

Sector	Level	Skill Gap
Manufacturing (mineral/ metal based)	Manager/Engineer	<ul style="list-style-type: none"> ♦ Project Management and People Management Skills ♦ Knowledge of appropriate safety practices ♦ Communication skills (Writing Skills)
	Supervisors	<ul style="list-style-type: none"> ♦ Interpersonal and communication skills ♦ Understanding of quality concepts ♦ Understanding of product specifications ♦ Knowledge and implementation of safety practices ♦ Improve efficiency by avoiding wastage of resources
	Workmen/operators	<ul style="list-style-type: none"> ♦ Understanding of discipline, industrial rules, work related procedures etc. ♦ Ability to carry out basic troubleshoot in case of machine breakdown ♦ Understanding of wastage or resources, to improve efficiency in working ♦ Practicing safety measures in the workplace ♦ Multi skilling
Building & Construction	Project Managers/Engineers	<ul style="list-style-type: none"> ♦ Knowledge of design and tools such as AutoCAD etc. ♦ Knowledge of green/eco-building design ♦ Project Management and People Management Skills ♦ Knowledge of appropriate safety practices ♦ Client Management skills (e.g. government officials for approvals, flat owners etc.)
	Supervisors: plumbing, electrical, carpentry, masonry, drilling	<ul style="list-style-type: none"> ♦ Skills in civil- operations of ready mix m/c, earth movers, etc. ♦ Basic repair and maintenance ♦ Exposure to right methodology in construction specific skills like lining, leveling etc.

Sector	Level	Skill Gap
		<ul style="list-style-type: none"> ♦ Site safety concepts and procedures ♦ Lack of finishing skills
	Workmen: plumbing, electrical works, carpentry, masonry, drilling	<ul style="list-style-type: none"> ♦ Basic operating skills related to relevant category ♦ Improved/ better quality in finishing ♦ Site safety concepts and procedures ♦ Ability to understand & follow instructions/ manuals
Agriculture	Tractor operator and mechanics/ Electricians/ Mechanics for repair & maintenance of agricultural tools & implements	<ul style="list-style-type: none"> ♦ Sufficient training to address tool & equipment failures like motor pump failure, gear damage, tyre puncture etc.
Trade (Retail and Wholesale)	Store/Department Manager	<ul style="list-style-type: none"> ♦ Understanding of cross functional activities in the store esp. logistics, marketing and merchandising ♦ People management skills ♦ Vendor Management ♦ Lack of IT skills
	Billing Associate/ Accountants/ Computer operators	<ul style="list-style-type: none"> ♦ Knowledge of transaction processing software and cash management ♦ Knowledge of tally/accounting practice
	Sales/Customer Service personnel	<ul style="list-style-type: none"> ♦ Product specific knowledge ♦ Customer service and Inter personal skills ♦ Communication skills
BFSI	Middle level managers	<ul style="list-style-type: none"> ♦ Limited knowledge Banking operations ♦ Poor Client and team management skills ♦ Lack of Interpersonal and communication skills
	Business Facilitator / Correspondent/ Direct Selling Agents/Financial Advisors	<ul style="list-style-type: none"> ♦ Correct knowledge of products; ♦ Customer need assessment and Advisory Skills ♦ Communication and Selling Skills ♦ Customer service and Inter personal skills
	Officer and Trainee	<ul style="list-style-type: none"> ♦ Lack of in-depth Product Knowledge ♦ Poor Written and verbal communication Skills ♦ Inadequate Inter-personal skills
	Customer Service Executives	<ul style="list-style-type: none"> ♦ Limited Computer skills ♦ Limited Accounting knowledge ♦ Inadequate Communication Skills

4.23.8 Recommendations

Future Growth Opportunities in Raipur

In the context of the current economic profile and proposed investments of the district, the demand for human resources at various skill levels has been analyzed. The observations have been augmented by primary interactions with industry & industry association representatives in the district and government officials at the state and district level. Based on our analysis and considering factors like high growth and employment potential, priority sector for the state government, investment trends, etc., the following sectors/industries have been identified with future growth opportunities for employment and subsequently, skill development in Raipur.

Table 385: Key Growth Sectors – Raipur

#	Priority Sectors	Growth opportunities in skills development and employment
1	Manufacturing (mineral/metal based units)	<ul style="list-style-type: none"> Manufacturing sector is currently the largest sub-sector contributing around 42% of the district economic output and is expected to grow at approximately 11.2% over the period 2012-22. Manufacturing units of mineral/metal based entities is projected to be the largest employer in the district with approximately 25% of the total incremental demand for employment estimated to come from this sector over the period 2012-22. In terms of absolute employment, this sector is likely to employ around 106,668 incremental human resources over the decade. The presence of big groups like Jindal, Bharat Petroleum, Hindustan Petroleum, Monnet Steel, Ultratech Cement, Century Cement and Grasim has helped the growth of many micro and small ancillary units in the district. The establishment of Industrial Growth Centre at Urla & Siltara along with the proposed Metal Park, Apparel Park & Gems & Jewellery Special Economic Zone planned to be setup in Raipur and substantial investments proposed in the district for installation of steel, sponge iron, ferro alloy units and cement industries etc. would aid the strong growth of the sector in future.
2	Building and Construction	<ul style="list-style-type: none"> Construction is another major contributor in the district economy which has share of around 20% to the Industry sector contribution in 2013 and is expected to grow at 16.3% (2012-22). Building and construction is projected to be the 2nd largest employer in the district with approximately 17.5% of the total incremental demand for employment estimated to come from the sector. The sector is likely to have an estimated incremental demand for around 74,774 workers over the decade.
3	Agriculture	<ul style="list-style-type: none"> Agriculture is currently providing employment to around 42% of the workers in the district & is expected to grow at around 5.4% over the decade (2012-22). Agriculture is anticipated to be the 3rd largest incremental employer in the district accounting for around 13% of the total incremental demand for manpower. It is expected to provide incremental employment to around 55,631 persons over the decade.
4	Trade (Wholesale + Retail)	<ul style="list-style-type: none"> Trade (Wholesale+ Retail) is estimated to grow at around 10% in the period 2012-22. The booming manufacturing industry in the district, especially steel, cement & power and the initiatives undertaken by CSIDC in the district along with the growth in building and construction activities has enabled the trade of raw materials as well as finished products in the district resulting in increasing manpower demand in the sector. It is anticipated to be one of the largest employers of the district, providing

#	Priority Sectors	Growth opportunities in skills development and employment
		incremental employment to more than 29,000 workers contributing to about 10.0% of the total incremental employment in Durg over the period 2012-22.
5	BFSI	<ul style="list-style-type: none"> BFSI is another major contributor in the district economy which has share of around 7% to the total incremental demand for manpower and is expected to grow at 12% (2012-22). The sector is likely to have an estimated incremental demand for around 31,209 workers over the decade esp. for the job roles like financial intermediaries and business correspondents.
Source: Deloitte Analysis		

Considering the economic and skill landscape of Raipur, the table below indicates the priority areas of focus for key stakeholders involved. These observations have been mainly derived from the growth opportunities identified above and through primary interactions with industry and industry association representatives in the district along with inputs from the students, training institutes and government.

Table 386: Key Recommendations for Stakeholders – Raipur

Stakeholder	Priority Areas
NSDC	<p>NSDC can focus the efforts of its training partners in the key sectors identified in the district, viz.</p> <ul style="list-style-type: none"> Manufacturing – Mineral & metal based Building and Construction Agriculture Trade (Wholesale + Retail) BFSI
Private training providers	<ul style="list-style-type: none"> There is a need for more courses in manufacturing (mineral & metal based) owing to the demand for more trained workers in the sector. Additionally, courses in building and construction, agriculture, trade (wholesale + retail) and BFSI can also be explored. The training institutes should introduce/ substantiate multi-disciplinary courses in sectors such as BFSI, building & construction etc. There is a need for design and delivery of bridge courses with a focus on communication, language, basic IT and soft skills to make students job ready as highlighted in youth survey as well. There is a need to strengthen/improve the current technology and facilities/equipment in the institute as indicated by around 72% of the youth surveyed in the district.
Government	<ul style="list-style-type: none"> The Government should promote and endorse vocational education as a practical alternative to formal education with emphasis on providing job ready courses. The Government should incentivize vocational education and subsequent certification for the workforce in the district in terms of wage revision. The Government should encourage more vocational training institutes on public private partnership mode in the district. Youth interactions indicated need for better working conditions and compensation for employees in the district. Soft Skills may be provided at high school level in government schools.
Industry	<ul style="list-style-type: none"> There is a need to collaborate with skill development institutes (SDI), ITIs and Employment Exchanges in the district to create structures/ linkages for placement and internship/ OJT opportunities. Industry players should provide inputs in curriculum for ITIs and skill development institutes to improve the practical component of learning. Industry players should participate in relevant SSCs to provide relevant inputs especially in the high growth sectors identified in the district. The large industries in the district like Jindal, Bharat Petroleum, Hindustan Petroleum,

Stakeholder	Priority Areas
	<p>Monnet Steel, Ultratech Cement, Century Cement and Grasim Cement etc. should undertake and encourage vocational training in manufacturing (mineral & metal based) and building & construction sectors as a part of their CSR activities and partner with relevant Skill Development Institutes in terms of infrastructural support, guest/visiting faculty & On The Job training (OJT) etc.</p>

4.24 Rajnandgaon

4.24.1 District Profile

Rajnandgaon district, originally named as Nandgram is located in the central part of Chhattisgarh. The district came into existence in 1973 after it was carved out of Durg district. Kabirdham district was further bifurcated from the present Rajnandgaon district in 1998.

The district is a part of Durg division. It is surrounded by Kabirdham on the north, Bemetara on the north-east, Durg on the east, Balod on the south-east, Kanker on the south, Gadchiroli and Bhandara districts of Maharashtra state and Balaghat district of Madhya Pradesh state on the west. It extends over an area of 8070 sq. Km, which is 6.0% of the total state area⁴³⁵. The district is divided into 5 divisions, 9 tehsils viz. Chhuikhadan, Khairagarh, Dongargarh, Rajnandgaon, Chhuriya, Dongargaon, Mohla, Manpur, Ambargarh, 1690 villages, 692 Gram Panchayats, 16 Revenue Circle, 283 Patwari Circle, 2 Nagar Palika, 5 Nagar Panchayat and 9 Janpad Panchayats. Rajnandgaon town is the district headquarters. The principal river of the district is Sheonath River, which is a tributary of the Mahanadi River. The main tributaries of Sheonath are Kharkhara, Sonbarsa, Amner, Surhi, Karra, Murkati, Sankari, Fonk and Hanf.

Around 31% of the district is covered by forests. However, the forest cover of Rajnandgaon is lesser than the state average & comprises of very dense forest (1.2%), moderately dense forest (70.3%) and open forest (28.6%)⁴³⁶.

Table 387: Rajnandgaon District Profile

#	Indicator	Rajnandgaon	Chhattisgarh	% Share
1.	Area, in sq.km.	8070	135,190	6.0
2.	No. of sub-districts	9	149	6.0
3.	No. of inhabited villages	1685	20126	8.4
4.	No. of households (lakhs)	3.18	56.51	5.6
5.	Average Land holding size (Ha)	1.02	1.17	-
6.	Forest area cover	31.23%	41.18%	-

Source: Census 2011; Directorate of Economics and Statistics- Govt. of Chhattisgarh; State of Forest Report 2011-Forest survey of India

Map 25: Rajnandgaon District



⁴³⁵ Census 2011

⁴³⁶ State of Forest Report 2011-Forest survey of India

4.24.2 Demography

As per Census 2011, Rajnandgaon has a population of 15,37,133 of which 82.3% of the people reside in the rural areas. The decadal population growth in Rajnandgaon during 2001-2011 was 19.8%, which is slightly higher than the population growth of 17.8% during the period 1991-2001. As of 2011, Rajnandgaon was the 5th most populous district of Chhattisgarh. The population density of the district (190) is comparable to the state figure (189) while the urban share of population is lower than the state average. About 61.2% of the population is in the working age population class group. The per capita income in the district is lesser than the state average.

Table 388: Demographic Indicators of Rajnandgaon

Demography	Rajnandgaon	Chhattisgarh
Population (2011)	15,37,133	2,55,40,196
Population 15-24 (2011)	3,15,090	49,89,339
Decadal Population Growth Rate (2001-11)	19.8%	22.6%
Population density per sq. km (2011)	190	189
Percentage of Urban Population (2011)	17.7%	23.2%
Percentage of SC population (2011)	10.2%	12.8%
Percentage of ST population (2011)	26.4%	30.6%
Average household size	4.83	4.54
Sex Ratio (2011)	1015	991
Working age population (15-59) as a percentage of total population, %	61.2%	62%
Per Capita Income (2009)	Rs. 19,277 ⁴³⁷	Rs.28,263

Source: Census of India 2011; Directorate of Economics and Statistics- Govt. of Chhattisgarh

Key Observations:

- ♦ As of 2011, Rajnandgaon was the 5th most populous district of Chhattisgarh.
- ♦ The sex ratio of Rajnandgaon at 1015 females per 1000 males is much higher than the state average of 991.

⁴³⁷ At 2004-05 constant prices

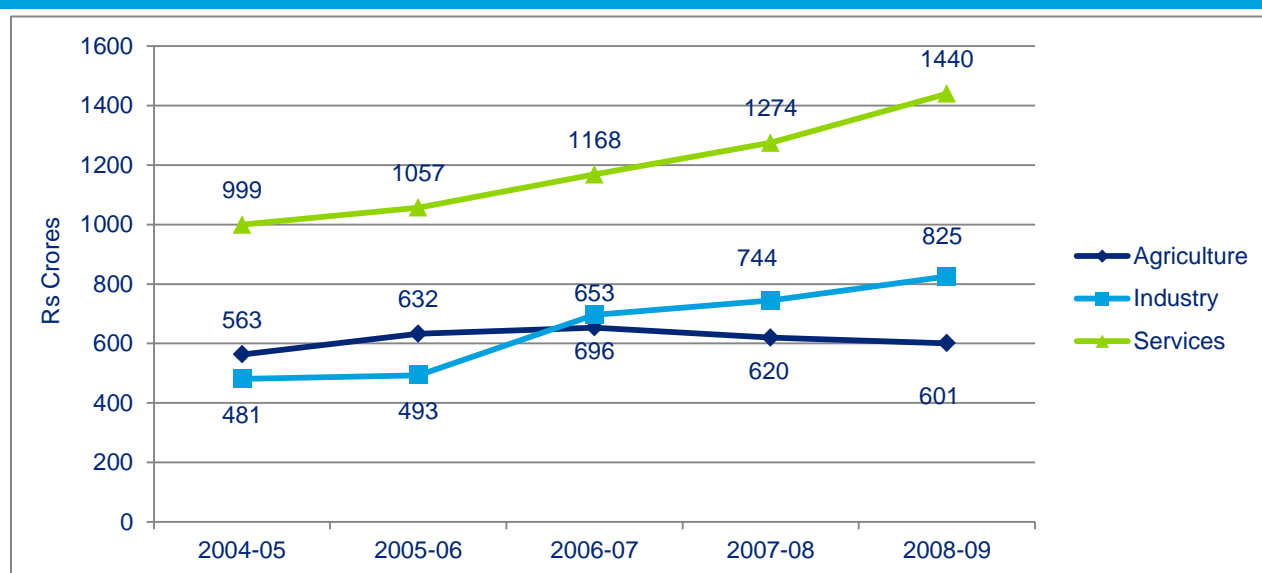
4.24.3 Economic Profile

Gross District Domestic Product (GDDP) of Rajnandgaon in the period 2005-09 has grown at a CAGR of 8.8% which is less than the state growth rate of 9.6% in the corresponding period. At Rs. 2865.85 crores, Rajnandgaon registered the 6th highest GDDP in Chhattisgarh in the year 2008-09. The economy of Rajnandgaon contributed 4.2% to the Gross State Domestic Product in the same year.

The economy of Rajnandgaon district is pre-dominantly Services sector based, with Services sector's share in GDDP being 50.2% in 2008-09. This is followed by Industry sector with 28.8% share in the GDDP and Agriculture sector with a share of 21%. In terms of sectoral growth, the Industry sector has shown the highest growth rate during the period 2005-09 with a CAGR of 14.4%, as compared to the Services (9.6%) and Agriculture (1.6%) sectors.

The sector-wise GDDP growth and distribution from 2005-09 is given in the figures below:

Figure 412: GDDP contribution of different sectors from 2005-09, Rajnandgaon



Source: Directorate of Economics and Statistics- Govt. of Chhattisgarh, 2004-05 base price

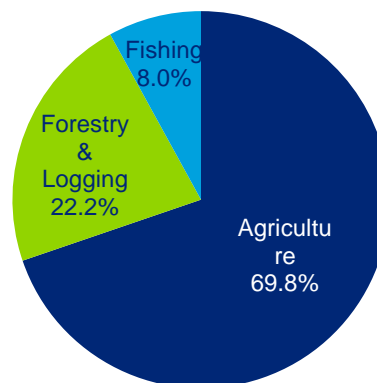
Agriculture sector

The contribution of Agriculture sector to GDDP was 21% in 2008-09. Agriculture is the main contributor in the total output of the Agriculture sector contributing 69.8% in the year 2008-09.

The location of the district in the fertile Chhattisgarh plain helps in agricultural growth. The Sheonath river and its tributaries viz. Kharkhara, Sonbarsa, Amner, Surhi, Karra, Murkati, Sankari, Fonk and Hanf supply water which is used for irrigation. Besides, the tropical climate of the district also helps in the growth of crops. The main crops of the district are paddy and wheat while the chief oilseeds grown in the district are soyabean and tilha. Rajnandgaon is a NFSM district for both rice and pulses.

Forestry & Logging, which contributed to 22.2% of the sectoral GDDP, is also an important activity in the district. About one third of the district is covered by forests. Rajnandgaon falls under the Durg forest circle and the important non-nationalized species available in the district are Kusum (Lac), Palash, Imli, Mahua, Kusum (Oil seed), Karanj, Chironjee, Shahad, Aonla, Baheda, Dhawai, Bel, Baibiding, Kalmegh, Bhelwa, Marorfalli. The forests in Khairagarh area consists of trees like Mahulpatta, Mahua, Chironjee, Tikhur, Shahad, Aonla, Baheda, Dhawai, Bel, Baibiding, Kalmegh, Nagarmotha.

Figure 413: Sub-sectoral break-up in Agriculture sector (2008-09), Rajnandgaon



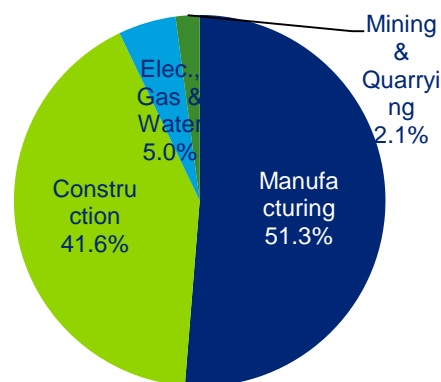
Source: Directorate of Economics and Statistics, Govt. of Chhattisgarh

Industry sector

The Industry sector (manufacturing, mining & quarrying, construction, electricity, gas and water supply) contributed 28.2% to the GDDP in 2008-09. Manufacturing is the major contributor within the Industry sector, with a sectoral share of 51.3%.

The district is industrially developed. The chief industries of the region are agro-based, ready-made garment, wooden furniture, mineral based, metal based and engineering, repairing & servicing units. Some of the important large scale industries of the district are Crest Steel & Power Limited in Mangata, Kamal Solvent Extraction in Somni and Sai Chemicals Private Limited in Tedesara.

Figure 414: Sub-sectoral break-up in Industry sector (2008-09), Rajnandgaon



Source: Directorate of Economics and Statistics, Govt. of Chhattisgarh

The existing status of industrial areas in the district is captured in the table below.

Table 389: Existing industrial clusters of Rajnandgaon

Name of Industrial Area	Land developed (ha)	Number of units in production
Industrial Estate, Rajnandgaon	7.77	50
Industrial Area, Somni	4.04	7
Industrial Area, Mohara	2.42	4
Industrial Area, Gathula	4.04	1
Industrial Area, Dongargarh	1.21	3
Total	19.48	65

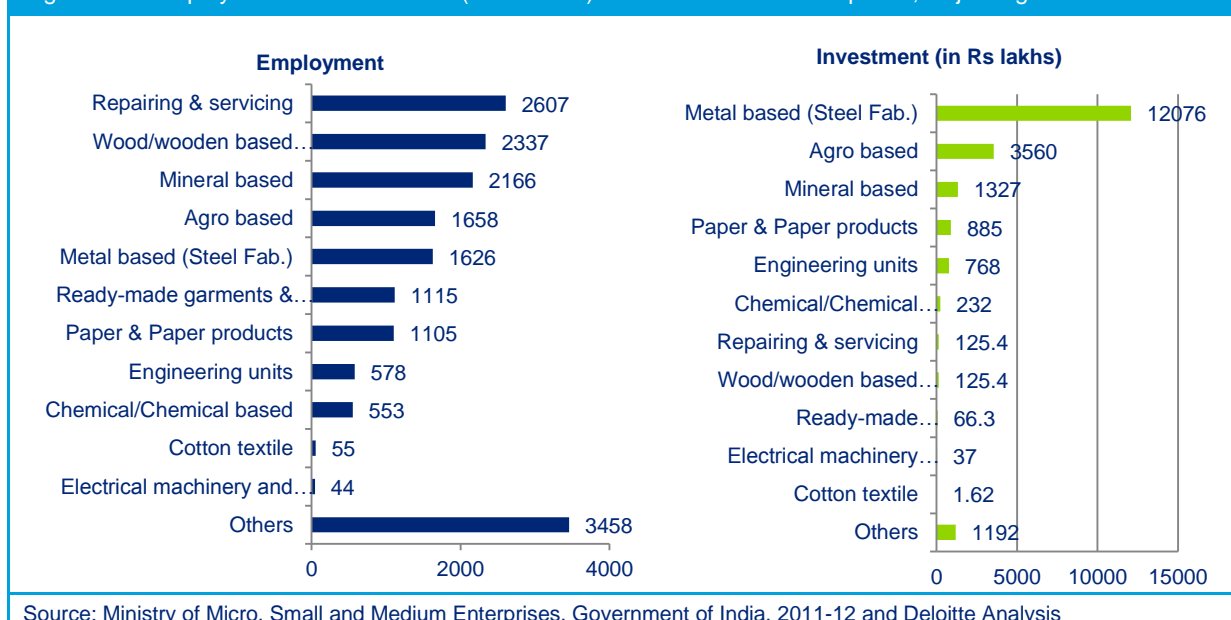
Source: Brief Industrial Profile of Rajnandgaon district, MSME-DI, Raipur

As per the list of MoU's shared by the State Investment Promotion Board (As on 31-03-2011), a total investment of Rs 14,033 crores has been proposed for installation of Steel plants, Sponge iron units, captive power plants, clinker and cement industries, coke oven plants etc. Out of this, Rs 9,483 crores has been proposed on steel, sponge iron and other ferro alloy units while Rs 300 crores has been proposed for cement industry. Besides, Lanco Solar Private Limited has proposed a captive power plant with investment potential of Rs 4,250 crore. This indicates the significant potential for growth in the Industry sector in the district. The sops announced by the government in FY 2014 budget (VAT on TMT steel bars reduced from 5% to 3%, entry tax on iron ore pellet, pig iron and steel scrap cut from 1% to 0.5% & reduced entry tax on furnace oil purchased from outside the state from 10% to 5%) would help in strengthening the steel sector.

Rajnandgaon also has a flourishing handloom & handicraft industry. The artisans of the region are famous for their work on Terracotta, Bamboo, Sisal (Jute) and wood carving. There are 23 existing handicraft clusters in the district⁴³⁸.

The investment in micro & small enterprises in the district is captured in figure below. As evident from the figure, the key industries in MSME sector are metal based fabrication units & agro based industries.

Figure 415: Employment and investment (in Rs lakhs) in micro and small enterprises, Rajnandgaon



⁴³⁸ Chhattisgarh Handicrafts Sector Profile, Chhattisgarh handicrafts Sector Meet-2012

Construction is also a major contributor within the Industry sector, with a sectoral share of 41.6% in 2008-09. A total budgeted value for ongoing building and construction activities (building and roadwork) in Rajnandgaon for the year 2013-14 allocated at Rs. 319 crores shows the current focus of the district on the sector⁴³⁹.

In terms of availability of minerals in Rajnandgaon, Limestone is the main mineral found in the district. It is found in the Charbhata area. Occurrence of Quartzite, Quartz, Granite and White Clay is also reported in the district.

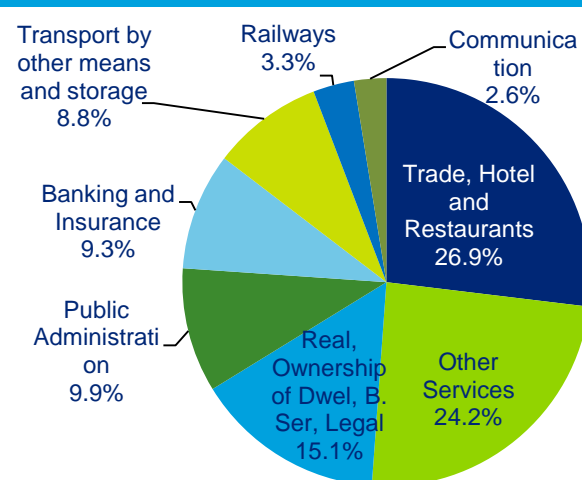
The total mineral revenue receipt from mining of minerals in the district in 2012-13 was Rs. 666.74 lakhs (Major Mineral: Rs. 63.66 Lakhs, Minor minerals: Rs. 598.74 lakhs and others: Rs. 4.34 lakhs)⁴⁴⁰.

Services sector

The Service sector contributes to about half of the GDDP in the year 2008-09. The key contributor to the sector is trade, hotels and restaurants contributing approximately 26.9% in the Services sector GDDP. Dongargarh is the main tourist as well as pilgrimage site of the district. The temples of Badi Bamleshwari and Chhoti Bamleshwari attract thousands of people during Dusshera and Ramnavami. The district is well connected to the rest of the state by rail as well as road networks. The District headquarters Rajnandgaon lies on the Mumbai - Howrah line of southeastern railways. NH 6, which runs through 6 states from Hajira in Gujarat to Kolkata in West Bengal, passes through the district.

With a CAGR of about 16.7% and 19.8% over the period from 2004-2009, communication and banking & insurance sectors respectively were among of the fastest growing sectors in the district, though their absolute sizes are small.

Figure 416: Percentage contribution to the Services sector (2008-09), Rajnandgaon



Source: Directorate of Economics and Statistics- Govt. of Chhattisgarh

Key Observations:

- ♦ The economy of Rajnandgaon district is pre-dominantly Services sector based, with Services sector's share in GDDP being 50.2% in 2008-09.
- ♦ This is followed by Industry sector with 28.8% share in the GDDP and Agriculture sector with a share of 21%.
- ♦ In terms of sectoral growth, the Industry sector has shown the highest growth rate in the period 2005-09 with a CAGR of 14.4%, as compared to Services (9.6%) & Agriculture (1.6%) sectors.

⁴³⁹ Chhattisgarh Public Works Department

⁴⁴⁰ Directorate of Geology & Mining, Chhattisgarh

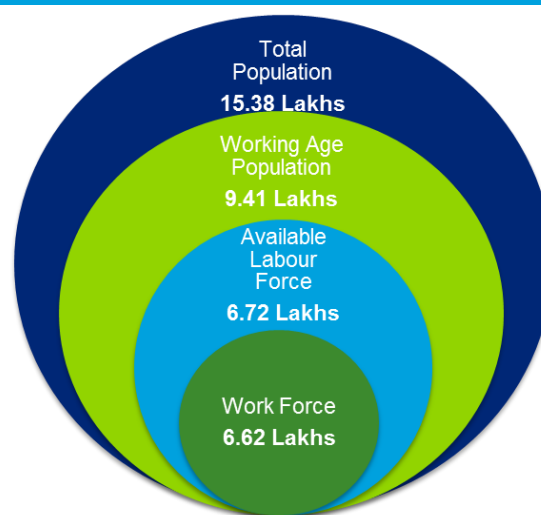
4.24.4 Employment Profile

Rajnandgaon was the 5th most populous district of Chhattisgarh in the year 2011, accounting for nearly 6.0% of the state's population.

The adjacent figure depicts the estimated workforce in Rajnandgaon in context of the total population of the district. Out of the total population of 15.38 Lakhs, the working age population (between 15-59 age group) constitutes nearly 61.2%.

Based on the labor force participation rate and the worker participation rate estimates for the state, the available labour force is estimated to be 6.72 lakhs, and the workforce is estimated at 6.62 lakhs or nearly 70% of the working age population.

Figure 417: Total Workforce in Rajnandgaon (2011)

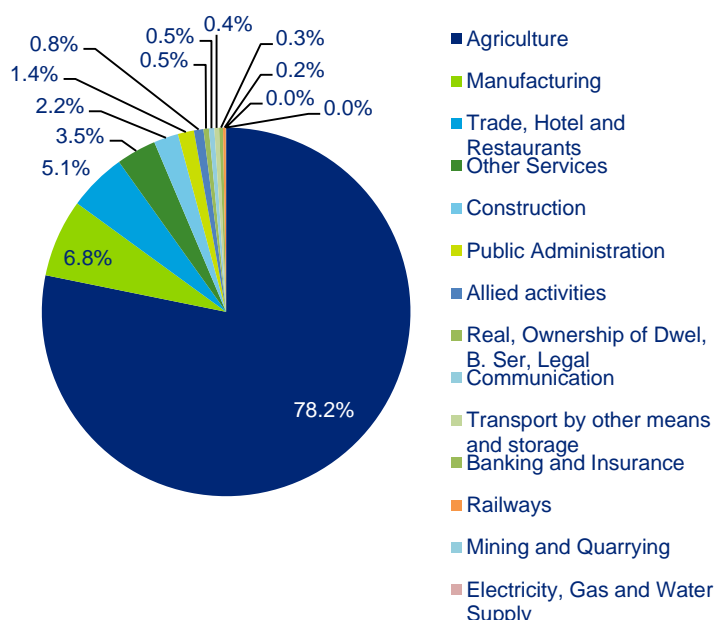


Source: Census 2011 and Deloitte Analysis

Agriculture sector is the highest employer in the district in 2011 employing around 79% of the total available work force; however, the sector contributes

the least in the district's economic profile during the same period with around 19.5% share in the Gross District Domestic Product.

Figure 418: Sector wise employment in Rajnandgaon (2011)



Source: Census 2011 and Deloitte Analysis

Agriculture contributed to 78.2% of the total employment in the district. Manufacturing (6.8%) was the second highest employer in the district followed by trade, hotels and restaurants (5.1%), other services (3.5%) and construction (2.2%) sectors.

The top five sectors in the district in terms of employment account for around 96% of the total employment of the available workforce in Rajnandgaon in 2011.

Services sector is the second highest employer in the district employing around 12.0% of the workforce available in 2011. It is also the chief contributor in the district economy in 2011, with a share of around 40.9% of the Gross District Domestic Product.

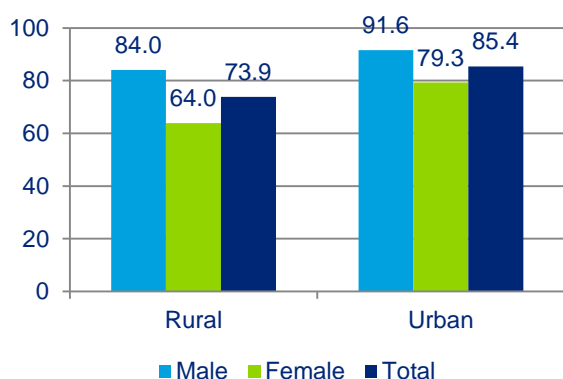
The Industry sector's share in the GDDP was around 39.6% in 2011 with the sector employing around 9% of the district's workforce.

The sector-wise employment of Rajnandgaon for the year 2011 has been shown in the adjoining figure.

4.24.5 Education Infrastructure

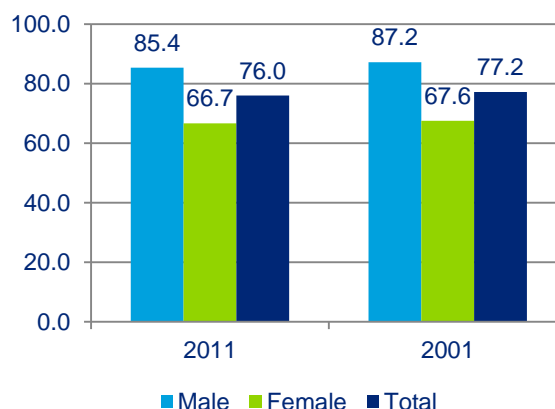
The literacy rate in Rajnandgaon has slightly decreased from 77.2% in 2001 to 76.0% in 2011⁴⁴¹. However, it is higher compared to the state's literacy rate of 71% in 2011 as well as the all-India literacy rate of 73%. In 2011, male and female literacy rates stood at 85.4% and 66.7% respectively.

Figure 419: Literacy rate 2011 (by residence), Rajnandgaon



Source: Census of India 2011

Figure 420: Literacy rate (by Gender), Rajnandgaon



Source: Census of India, 2001 and 2011

School Education

Rajnandgaon has 2024 primary schools, 919 upper primary schools, 181 secondary schools and 205 higher secondary schools. The Net enrolment ratio (NER) in 2011 was 100% for the primary level. NER at the upper primary level (73.8%) for the year 2010-11 is higher to the state NER of 67.8%.

Table 390: Status of school education infrastructure in Rajnandgaon, 2013

#	Educational Statistics	Units in Rajnandgaon	Units in Chhattisgarh	% Share of District in State
1	Primary School	2024	35588	5.7%
2	Upper Primary School	919	16442	5.6%
3	Secondary School	181	2632	6.9%
4	Higher Secondary School	205	3548	5.8%
5	NER (Primary) (2010-11)	100%	98.0% ⁴⁴²	-
6	NER (Upper Primary) (2010-11)	73.8%	67.8%	-

Source: DISE 2012-13

⁴⁴¹ Census 2011

⁴⁴² Data is for 2008-09

Vocational Education

For vocational training, Rajnandgaon has a total of **7 ITI's in the district**, all of which are Government Industrial Training Institutes. There is no dedicated woman ITI in Rajnandgaon. The total capacity of the ITI's in the district is 1060. Computer Operator and Programming Assistant (COPA) and Electrician courses have the maximum units affiliated among the ITI's in the district.

The number of courses available in ITIs and their capacity are listed in the table below:

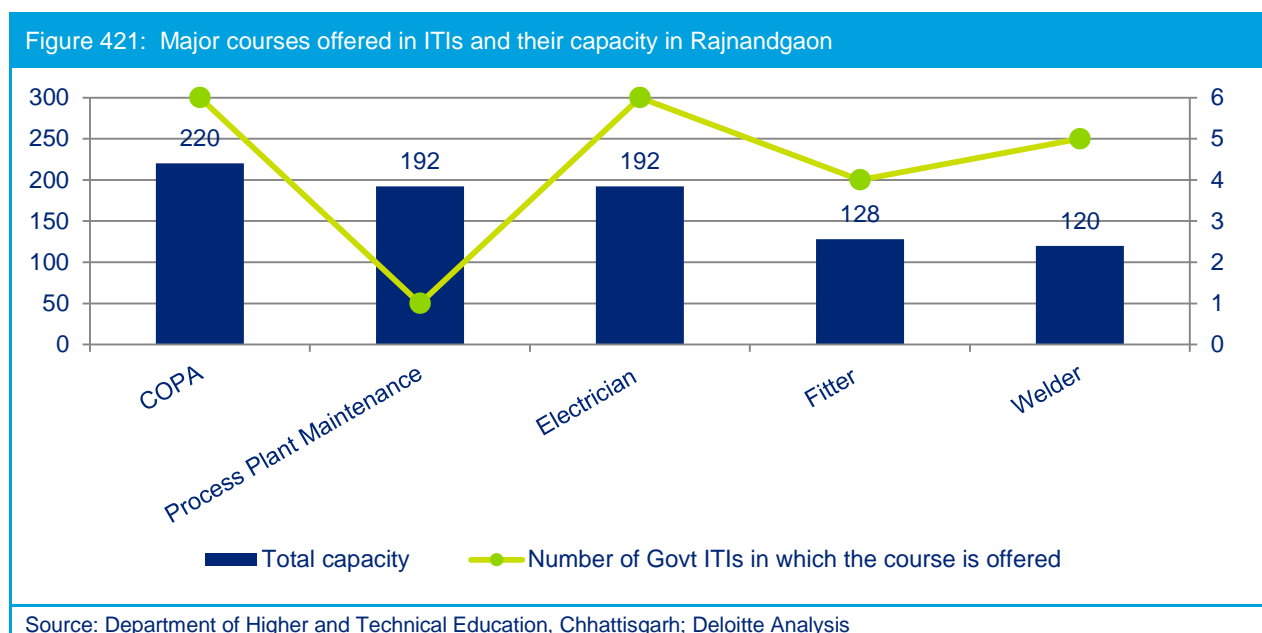
Table 391: ITIs in Rajnandgaon and their capacity

Name of ITI	Number of courses offered	Total Units affiliated	Total Capacity
Government Industrial Training Institute, Rajnandgaon	8	23	368
Government Industrial Training Institute, Tedesra	5	9	144
Government Industrial Training Institute, Manpur	5	9	144
Government Industrial Training Institute, Dongargarh	6	12	192
Government Industrial Training Institute, Mohla	2	3	48
Government Industrial Training Institute, Chhuikhadan	5	9	144
Government Industrial Training Institute, Dongargaon, Mohla	1	1	20
Total	11*	66	1060

Source: Department of Higher and Technical Education, Chhattisgarh; Deloitte Analysis

*Total number of different courses offered by ITI's in Rajnandgaon

The major courses offered in the ITIs and their capacity in Rajnandgaon is given in the figure below:



According to Chhattisgarh State Skill Development Mission Website, as of 12th March, 2014, Rajnandgaon has 92 Vocational Training Providers (VTPs) under which there are 3781 registered

beneficiaries. The following table highlights the courses offered in vocational education, which currently meet requirements of about 15 sectors.

Table 392: Courses offered in vocational education, Rajnandgaon

Sector	ITI trades and Units affiliated	Courses Offered by VTPs
Auto and auto components Electronics and IT hardware Chemicals and pharmaceuticals	Electrician(12), Fitter(8), Process Plant Maintenance(12), Mechanic and machinist (8), Process Plant Maintenance (12), Welder(10)	Electrical, Electronics, Fabrication, Automobile, Automotive Repairs
IT and ITES Tourism, hospitality and travel Organized retail Media and entertainment Banking, financial services and insurance	Computer Operator and Programming Assistant(11), Driver cum mechanic (3)	ICT, Soft skill, Retail, Banking & Accounting, Fashion design, Printing
Textiles and clothing Leather and leather goods Food processing	Cutting and Tailoring(1)	Textile sector, Garment making, Meat Processing
Building, construction and real estate Construction material and building hardware	Surveyor (1)	Construction
Healthcare Services Unorganized sector (particular reference to agriculture, security, plumbing, domestic worker, foundry, etc.)		Medical & Nursing, Paper Product, Beauty Culture & Hair Dressing, Wood Work, Animal Husbandry, Agriculture, Fisheries & Allied Sector, Bamboo Fabrication
Source: CSSDA Website		

The following table highlights the NSDC partners present in Rajnandgaon as of January 2014 and the courses offered by them.

Table 393: NSDC partners present in Rajnandgaon

Name of Partner	Sectors in which course is offered	Courses offered
AISECT	IT/Software	<ul style="list-style-type: none"> ◆ Diploma in Computer Applications (DCA) ◆ Post Graduate Diploma in Computer Applications (PGDCA) ◆ Diploma in Computer Programming and Applications (DCPA) ◆ Certificate in Data Entry Operator (CDEO)
	ITES-BPO	<ul style="list-style-type: none"> ◆ Diploma in Computer Applications (DCA) ◆ Post Graduate Diploma in Computer Applications (PGDCA) ◆ Diploma in Computer Programming and Applications (DCPA)
PARFI	Others	<ul style="list-style-type: none"> ◆ Welding
Source: NSDC		

Higher Education

The higher education infrastructure in the district is fairly decent. Out of a total 590 colleges in the state, 40 (6.8%) are in the district of Rajnandgaon. This is also comparable to the share of population of Rajnandgaon to the state (6.0%). However, **50% of the colleges present in the district offer only general degree courses** (Arts, Science and Commerce). Besides these 40 colleges, there are two Government polytechnic institutes present in Rajnandgaon, one of which is a girl's polytechnic.

The district has also 1 State University in the vicinity, viz. Indira Kala Sangit Vishwavidyalaya, Khairagarh.

Rajnandgaon has the 3rd highest number of technical colleges in Chhattisgarh (7) and is succeeded by Raipur and Durg. The district also has one dental college, viz. Chhattisgarh Dental College & Research Institute, Sundara. The break-up of the number and capacity of higher education institutes in Rajnandgaon is provided below.

Table 394: Number and Capacity of Higher Education infrastructure in Rajnandgaon

#	Colleges	Number	Estimated Capacity*
1	Arts, Science and Commerce	20	-
2	Technical	7	2520
3	Teacher Education	4	-
4	Agriculture	4	168
5	Nursing	2	175
6	Dental	1	108
7	Other medical	1	75
8	Law	1	-
	TOTAL	40	-

*Source: University/College websites

Key Observations:

- ♦ The higher education infrastructure in the district is decent. There are 40 colleges in Rajnandgaon which accounts for the district's share in higher education space of the state at 6.8%.
- ♦ However 50% of the colleges in the district offer only general degree courses (Arts, Science and Commerce).

4.24.6 Youth Aspirations

In the process of capturing the aspirations of the youth population in Rajnandgaon, Focused Group Discussions (FGD's) were held with youth of different age groups from educational institutions as well as residing in rural areas to understand their chief concerns, areas of interest and future dreams and goals. The youth survey in Rajnandgaon was conducted at the Government I.T.I. Rajnandgaon; Apex Institute of Management and NIIT Rajnandgaon centre. The FGD in Rajnandgaon was conducted at the Gram Panchayat Bhavan, Uparwah. In terms of the profile of the candidates, around 55% of the respondents were in the age group 15-20 while 36% of them were between 21-25 years. Remaining 9% of the respondents were 26 years and above. In terms of gender representation, around 73% of the participants were males and 27% were females. The educational qualification of about 79% of the participants was high-school level or below. Around 11% of them were diploma/certificate holder with the remaining participants being graduates and above. The key observations about aspirations of the youth surveyed in the district are highlighted below:

Table 395: Youth Aspiration – Key Responses - Rajnandgaon

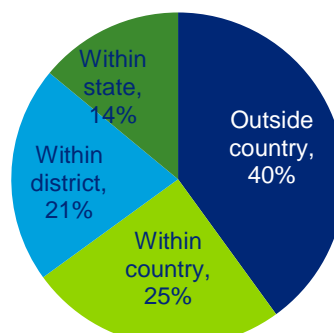
Parameters	Responses
Job Preference	Government job is preferred mostly over private job by the youth surveyed however; they feel that the employment should be provided on merit basis.
Factors influencing selection of training institution	Institutions are selected by respondents on the basis of future employment prospects, availability of seats/ subject of interest and proximity to home.
Preferred Course	<ul style="list-style-type: none"> Women are interested in trades like tailoring & sewing, mushroom cultivation, pisciculture, horticulture etc. Men expressed interest in trades of Electrician, Motor Mechanic, Fitter and Welder. Courses on spoken English, basic communication skills, personality development, soft skills & basic IT skills are considered to be very important by the youth.
Migrating for job	Most of the youth surveyed prefer jobs outside Chhattisgarh . Only around 35% of the youth surveyed prefer to get a job within Chhattisgarh if suitable employment opportunities are available in the state.
Salary Expectations	Average monthly salary expectation of youth who participated in the survey is around Rs. 10,000 /- and above according to the qualifications.
Areas of concern/ aspirations- Infrastructure	<p>Following views were expressed regarding infrastructure in educational institutions surveyed:</p> <ul style="list-style-type: none"> Youth reported poor quality of infrastructure in the institutes in terms of books in the library, building, laboratories etc. Blackboards, chalks and other basic amenities should be adequately provided. The inadequacy of computers in schools and non-functioning of those available was also highlighted.
Areas of concern/ aspirations-Course Curriculum	<ul style="list-style-type: none"> Youth feel that curriculum should also be focused on improving upon the soft skills and personality of the trainees besides technical know-how, and it is critical for getting a good job. Youth expect tie-ups with industry for apprenticeship/ internship to improve job prospects.
Other concern	<ul style="list-style-type: none"> It was learnt that majority of the youth surveyed are not aware about the newly introduced Govt. initiatives on skill development such as VTPs (MES/ SDI scheme) and NSDC training partners.
Suggestions given by youth surveyed	<ul style="list-style-type: none"> The youth expect Govt. to take up initiatives to improve college infrastructure. There should be more courses, practical classes, resourceful, efficient and regular teachers available in the institutes. Counseling before taking admission in any course was suggested by the youth so that they can understand the proper career path. English, Hindi or both must be used as the medium of teaching.

A sample survey was conducted with youth at gram panchayat level & those coming out from various educational institutions (Government & private) to understand & capture their aspirations. The findings are presented below:

Job preference by youth

The majority of the youth surveyed primarily urban youth (40%) **prefer to get a job outside India** as is shown in the adjacent figure. Approximately 25% of them preferred job within India. The survey highlights the fact that only around **35% of the youth surveyed prefer to get a job within Chhattisgarh** if suitable employment opportunities are available in the state.

Figure 422: Job Preference by Youth



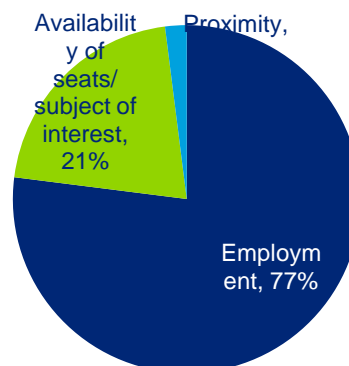
Source: Deloitte Analysis

Parameter for Institute Selection

A majority of the students surveyed (77%) quoted the prospects of future employment as their necessary criteria for choice of educational institute.

While 21% of them mentioned the **availability of seats/subject of interest in the institute for making the choice**, around 2% of the respondents especially at the gram panchayat level quoted the **proximity of the educational institution** as their prime parameter while selection of an institute for higher education.

Figure 423: Parameter for Choice of Institute



Source: Deloitte Analysis

Youth Perception Mapping

Youth perception mapping was undertaken to understand their level of satisfaction with either their current institute or their experience and feedback on the available educational infrastructure. The results are summarized below:

Satisfaction with placement / jobs available post training: The students were almost equally opined with respect to the placement opportunities/jobs available post training in the district. Around 42% of the students surveyed expressed their satisfaction with the placement opportunity available in the institute or jobs available post training. While around **39% of them felt the job opportunities available to them post training were not satisfactory**. They shared their expectation of being provided with a placement opportunity by the institute or facilitate a tie-up with nearby companies to give them an experience of hands on training.

Availability of latest technologies and equipment for training: **65% of the students surveyed expressed their satisfaction** with the availability of latest technology & equipment for training in the institute while around 26% of them shared their dissatisfaction with the same. However, the youth demanded the institutes to be adequately equipped and upgraded with latest technology.

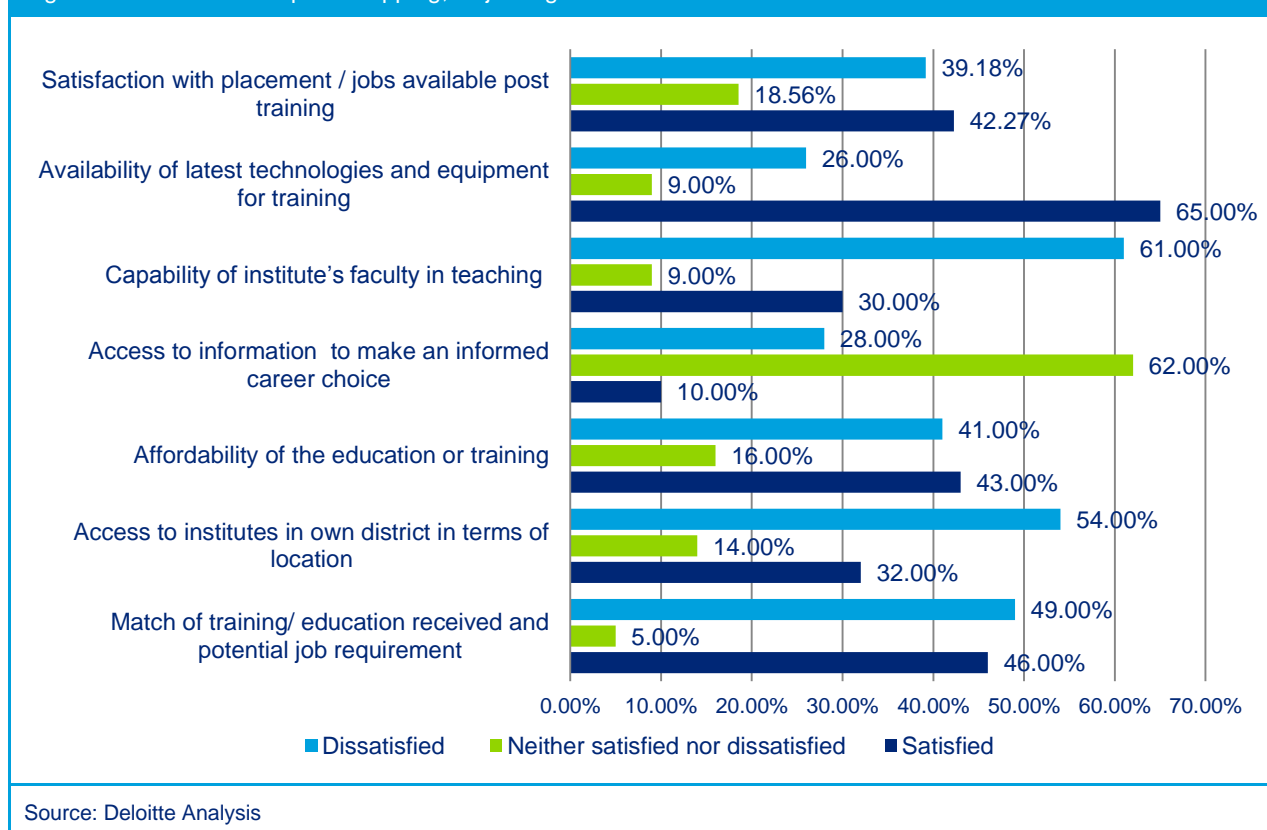
Dissatisfaction with capability of institute's faculty in teaching: Around 61% of the students feel the **quality of teaching by faculty** is not satisfactory and needs significant improvement. They demanded

the number of faculty to be increased as per the demand of the course and the **lack of quality faculty in the institute to be compensated by inviting visiting faculty from outside.**

Need for better access to information to make an informed career choice: The majority of the students surveyed feel that proper accessibility to information is an important factor to make an informed career choice. The rural respondents raised the concern of the **absence of thought leaders in their locality to get suggestions and guidance on career.** This showcases the importance of having career counseling to the potential students either at the school level or at the respective vocational institutes.

Affordability not as high a concern as quality and value for money in education or training: The students were almost equally opined with respect to the placement opportunities/jobs available post training in the district. Around 43% of the students surveyed felt that the fees charged by the education/ training institute was not a barrier for them and considered it to be affordable for them. While around 41% of them felt it to be on the higher end for them. The youth also emphasized that the quality of the training programme offered should be commensurate with the fees charged.

Figure 424: Youth Perception Mapping, Rajnandgaon



Access to institutes is an issue in rural areas: 54% of the students surveyed felt the educational institutes to be inaccessible in terms of location and expressed their dissatisfaction with its accessibility. Around 32% of the youth found the institute to be located in an accessible area and safe in terms of the duration of classes. The rural youth voiced the government to support them by arranging suitable transport facility.

Dissatisfaction with the alignment of training/education received with job requirements: The students were almost equally opined with respect to the alignment of training/ education received in the

district with the job requirements. While, approximately 49% of the students surveyed feel that the training/education currently provided by the educational institutes in the district is not in alignment with the job requirements of the business, around 46% of the youth felt that the training/ education received by them matches the potential job requirements of the employers. Thus, the survey brings out the need to make the required changes in the course curriculum to make the same application based and industry relevant.

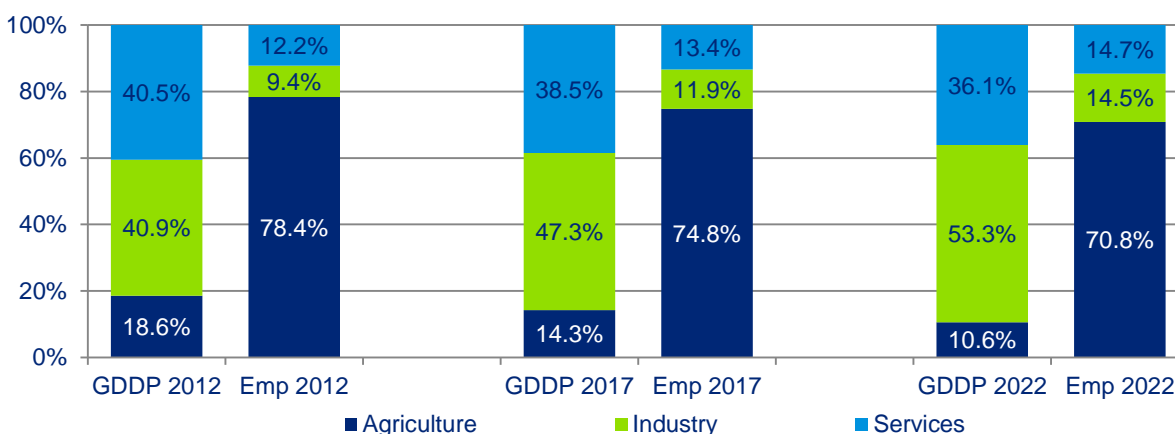
Key Observations:

- ♦ Government job is preferred mostly over private job by the youth however; they feel that the employment should be provided on merit basis.
- ♦ Institutions are selected by youth on the basis of future employment prospects, availability of seats/ subject of interest and proximity to home.
- ♦ Women are interested in trades like tailoring & sewing, mushroom cultivation, pisciculture, horticulture etc. Men expressed interest in trades of Electrician, Motor Mechanic, Fitter and Welder.
- ♦ Courses on spoken English, basic communication skills, personality development, soft skills & basic IT skills are considered to be very important by the youth.
- ♦ Only around 35% of the youth surveyed prefer to get a job within Chhattisgarh if suitable employment opportunities are available in the state.
- ♦ Youth reported poor quality of infrastructure in the institutes in terms of books in the library, building, laboratories etc. and highlighted that the institutes should be adequately provided with blackboards, chalks and other basic amenities.
- ♦ Youth feel that curriculum should also be focused on improving upon the soft skills and personality of the trainees besides technical know-how, and it is critical for getting a good job.
- ♦ Youth are not aware about the different Government initiatives on skill development in district.

4.24.7 Skill Gap Assessment

The working age population (15-59) constituting 61.2% of total district population in 2011, is expected to increase to 64.6% by 2022.

Figure 425: Comparison of Sectoral share in GDDP & Employment, Rajnandgaon



Source: Deloitte Analysis

Based on our analysis and primary interactions, the Agriculture sector is expected to play a significant role and will continue to be an important sector in terms of providing employment in the district. It currently accounts for the largest share of workforce and is anticipated to be the major employer in the district. If the trends in employment continue, in 2021-22, the share of employment across the Agriculture sector is expected to decline to 70.8% as compared to 78.4% in 2012.

The Industry and Services sector employment share are estimated to increase to 14.5% and 14.7% respectively, as indicated in the table above. This trend appears to be in line with the national trend as well where people are moving out of the Agriculture sector and moving into the Industry and Services sectors respectively.

Incremental Human Resource Demand

As per the methodology, the total incremental demand for manpower in Rajnandgaon from 2012 to 2022 is expected to be around 1.52 lakh. Following table provides the break-up of the incremental demand for manpower in Rajnandgaon as per the skill levels required.

Table 396: Estimated Incremental Human Resource Demand ('00) by Skill Level in Rajnandgaon

	2012-17	2017-22	Total
Skilled	120	149	268
Semi-Skilled	242	291	533
Minimally Skilled	350	367	717
Total	712	807	1,518

Source: Deloitte Analysis

Some of the key trends observed on the demand side include

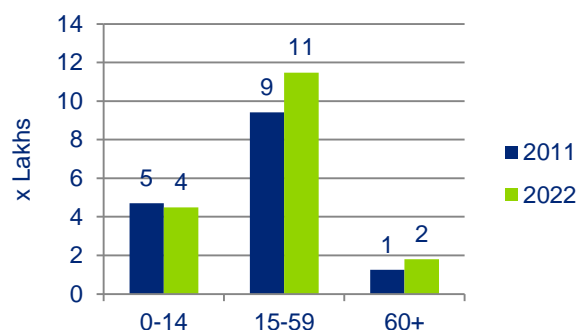
- ♦ *Agriculture will be the largest incremental demand generating sector (30.4%) with demand largely in the minimally skilled level. The location of the district in the fertile Chhattisgarh plain along with its tropical climate helps in agricultural growth. Rajnandgaon is a NFSM district for rice and pulses.*
- ♦ *Within the industry sector, the other key growth sectors in Rajnandgaon in terms of incremental demand for manpower is Manufacturing - primarily mineral/metal based (16.8%) and Building & Construction (13.6%).*
- ♦ *In the services sector, trade - retail + wholesale (6.1%) and BFSI (6.1%) are expected to be the major employers in Rajnandgaon.*
- ♦ *Analysis of formal and informal employment indicates that the incremental demand for manpower in formal sector would come mainly from Manufacturing (mineral/metal based), Building and Construction, BFSI and Public Administration.*
- ♦ *Majority of demand for incremental manpower in the informal sector is projected to come from Agriculture, Building & Construction, Manufacturing (mineral/metal based) and Trade (Retail + Wholesale).*

Table 397: Incremental Human Resource Demand ('00) by Skill Level in Rajnandgaon- Key Sectors

#	Key Sectors	2012-17				2017-22			
		Skilled	Semi-skilled	Minimally Skilled	Total	Skilled	Semi-skilled	Minimally Skilled	Total
1	Agriculture	7	24	208	239	7	22	194	224
2	Manufacturing (Mineral/Metal based)	23	70	23	116	28	83	28	139
3	Building & Construction	13	36	40	89	18	47	53	118
4	Trade (Retail + Wholesale)	7	23	16	46	7	23	16	47
5	BFSI	16	15	2	33	30	27	3	60
6	Others	52	74	61	188	60	88	73	221
7	Total	120	242	350	712	149	291	367	807
Overall Incremental Demand					1,518				
Source: Deloitte Analysis									

Incremental Human Resource Supply

Figure 426: Age wise distribution of population, Rajnandgaon 2011 and 2022 (projected)



Source: Census 2011 and Deloitte Analysis

The population of Rajnandgaon is expected to increase from 15.38 lakhs in 2011 to 17.76 lakhs in 2022.

The adjacent figure provides the current and projected population across various age groups. As per the analysis, the number of persons in the working age group is expected to increase by around 22% during the period 2011-22. The number of children in the 0-14 age group is likely to decline by around 5% over the same time period. This represents a potential demographic dividend for the district with a large increase in the employable population. On the other hand, it presents a huge challenge for the state to make

available higher education and skill development facilities as well as ensure productive employment opportunities for its working age population.

As per the methodology, the estimated incremental manpower supply in Rajnandgaon over a period of 10 years (2012-22) will be around 1.88 lakh. Incremental manpower supply can be further classified into skilled, semi-skilled and minimally-skilled as per the education qualifications and estimated output of educational and vocational training institutes in the district.

Table 398: Estimated Incremental Human Resource Supply ('00) by Skill Level in Rajnandgaon

	2012-17	2017-22	Total (2012-22)
Skilled	203	210	414
Semi-Skilled	194	204	398
Minimally Skilled	541	531	1,073
Total	938	946	1,885

Source: Deloitte Analysis

Some of the key trends observed on the supply side include

- Proportion of incremental supply of minimally skilled manpower is 56.9%, compared to 21.9% of skilled and 21.1% of semi-skilled manpower (2012-22)
- Rajnandgaon has 40 out of 590 colleges in the state indicating the district's share in the higher education space of the state at 6.8%. However, 50% of the colleges in the district offer only general degree courses (Arts, Science and Commerce).
- The supply of semi-skilled workforce in the district is estimated to increase while the supply of minimally skilled workforce is estimated to decrease over the two time periods which are in-line with the current focus of government in improving the skill development space of the state.
- The trend of migration is expected to be inward from other states and districts across all skill levels and would account to nearly 1.8% of the incremental supply.

Incremental Demand Supply Gap

During the period 2012-22, the incremental human resource demand in Rajnandgaon across all skill levels is estimated to be 1.52 lakh while the supply is projected to be 1.88 lakh indicating thus a surplus of around 0.37 lakh people (refer table below). There is estimated to be an excess demand across the semi-skilled segment with a surplus supply across skilled and minimally skilled segments.

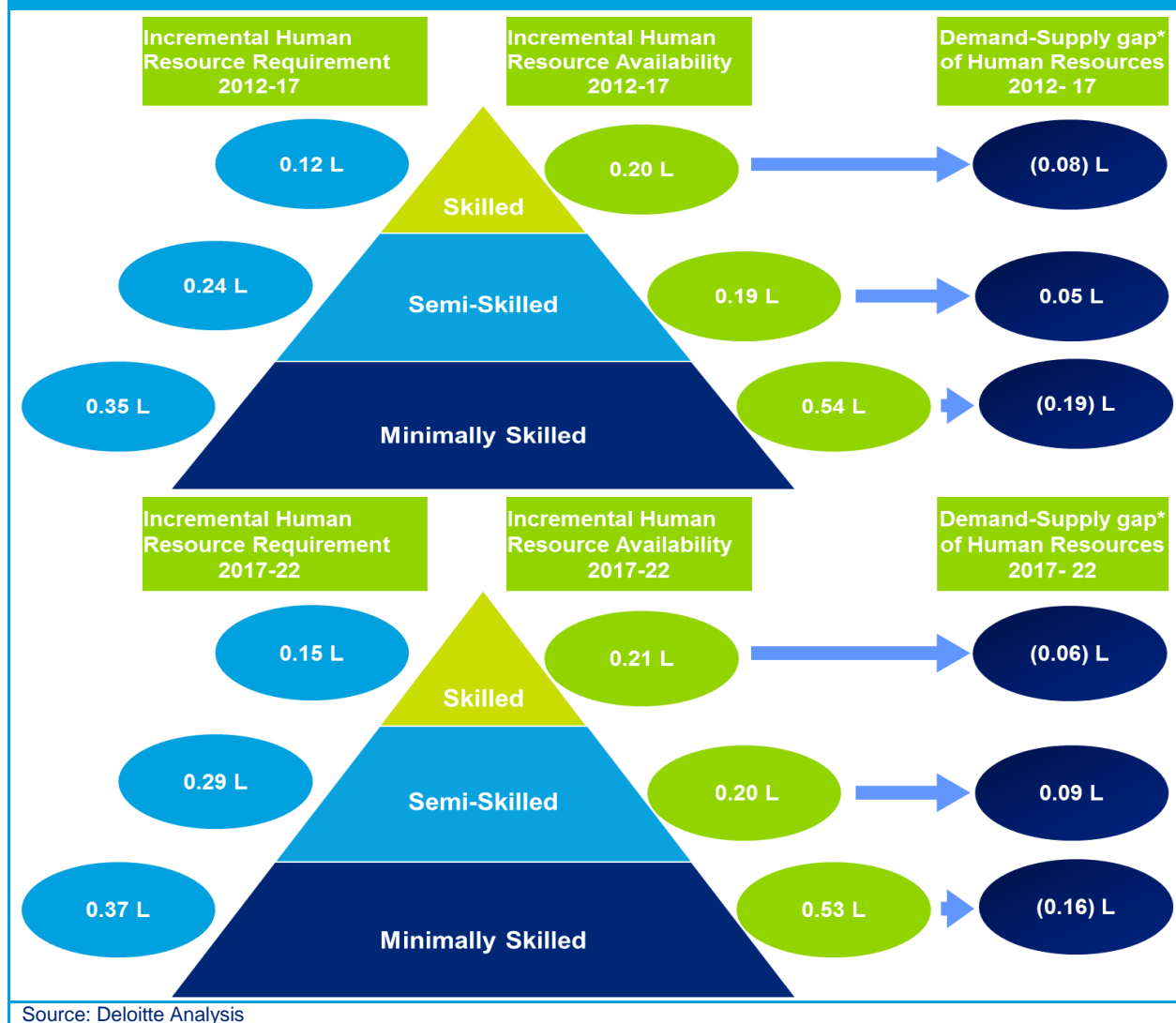
Table 399: Projected Demand Supply gap ('00) by skill levels in Rajnandgaon

#	District Skill Gap	2012-17				2017-22			
		Skilled	Semi-skilled	Min. Skilled	Total	Skilled	Semi-skilled	Min. Skilled	Total
1	Incremental HR Requirement (Demand)	120	242	350	712	149	291	367	807
2	Incremental HR Availability(Supply)	203	194	541	938	210	204	531	946
3	Demand-Supply Gap	(83)	48	(191)	(227)	(62)	87	(164)	(139)
	Overall Demand-Supply Gap				(366)				

Source: Deloitte Analysis

During the period 2012-22, the incremental manpower demand supply gap of the district (across all sectors mentioned above) is expected to be a surplus of about 0.37 lakh people with the excess demand across the semi- skilled segment as shown in the following figure.

Figure 427: Incremental Demand-Supply Gap (in Lakhs) , Rajnandgaon



Source: Deloitte Analysis

Some of the key trends observed on the demand-supply gap include

- The composition of the human resource demand supply gap over the two different time periods i.e. 2012-17 and 2017-22 is expected to change.
- There is likely to be an excess supply of skilled resources in the period 2012-22. However, even in the case of surplus supply of workers in the skilled segment, it is pertinent to note that it does not imply industry demand for skills is being sufficiently met. The industry interactions have revealed employability linked skills as a key area of concern. Approximately 59% of the total skilled workforce in district is estimated to be from general degree courses having undergone no job/skill specific training. The changing landscape of the sector including use of new technology and practices imply a need for reskilling and up skilling of the existing workers.
- The trend of excess demand is likely to continue in the semi-skilled segment across both the periods indicating greater requirement of the workforce in semi-skilled category within the district. The excess demand in the semi-skilled segment presents a case for introducing suitable training programs to augment the skills of this segment and cater to the requirements in the key sectors of growth.
- In line with the rural-urban population distribution in the district (82% of the population residing in rural areas) and dominance of agriculture in employment in the district, the major contributor to the incremental supply is the minimally skilled segment. This may result in some intra state migration of the surplus supply of minimally skilled workers from Rajnandgaon to districts like Korea, Korba, Raipur, Durg etc. in search of employment.

Qualitative Skill Gaps

The qualitative skill gaps that were highlighted during our primary interactions with industry at Rajnandgaon are provided in the table below.

Table 400: Qualitative Skill Gaps

Sector	Level	Skill Gap
Agriculture	Tractor operator and mechanics/ Electricians/ Mechanics for repair & maintenance of agricultural tools & implements	<ul style="list-style-type: none"> • Sufficient training to address tool & equipment failures like motor pump failure, gear damage, tyre puncture etc.
Manufacturing (mineral/metal based) Manufacturing (mineral/metal based)	Manager/Engineer	<ul style="list-style-type: none"> • Project Management and People Management Skills • Knowledge of appropriate safety practices • Communication skills (Writing Skills)
	Supervisors	<ul style="list-style-type: none"> • Interpersonal and communication skills • Understanding of quality concepts • Understanding of product specifications • Knowledge and implementation of safety practices • Improve efficiency by avoiding wastage of resources
	Workmen/operators	<ul style="list-style-type: none"> • Understanding of discipline, industrial rules, work related procedures etc. • Ability to carry out basic troubleshoot in case of machine breakdown • Understanding of wastage or resources, to improve efficiency in working • Practicing safety measures in the workplace • Multi skilling
Building & Construction	Project Managers/Engineers	<ul style="list-style-type: none"> • Knowledge of design and tools such as AutoCAD etc. • Knowledge of green/eco-building design • Project Management and People Management Skills • Knowledge of appropriate safety practices • Client Management skills (e.g. government officials for approvals, flat owners etc.)
	Supervisors: plumbing, electrical,	<ul style="list-style-type: none"> • Skills in civil- operations of ready mix m/c, earth

Sector	Level	Skill Gap
	carpentry, masonry, drilling	<ul style="list-style-type: none"> ♦ movers, etc. ♦ Basic repair and maintenance ♦ Exposure to right methodology in construction specific skills like lining, leveling etc. ♦ Site safety concepts and procedures ♦ Lack of finishing skills
	Workmen: plumbing, electrical works, carpentry, masonry, drilling	<ul style="list-style-type: none"> ♦ Basic operating skills related to relevant category ♦ Improved/ better quality in finishing ♦ Site safety concepts and procedures ♦ Ability to understand & follow instructions/ manuals
Trade (Retail and Wholesale)	Store/Department Manager	<ul style="list-style-type: none"> ♦ Understanding of cross functional activities in the store esp. logistics, marketing and merchandising ♦ People management skills ♦ Vendor Management ♦ Lack of IT skills
	Billing Associate/ Accountants/ Computer operators	<ul style="list-style-type: none"> ♦ Knowledge of transaction processing software and cash management ♦ Knowledge of tally/accounting practice
	Sales/Customer Service personnel	<ul style="list-style-type: none"> ♦ Product specific knowledge ♦ Customer service and Inter personal skills ♦ Communication skills
BFSI	Middle level managers	<ul style="list-style-type: none"> ♦ Limited knowledge Banking operations ♦ Poor Client and team management skills ♦ Lack of Interpersonal and communication skills
	Business Facilitator / Correspondent/ Direct Selling Agents/Financial Advisors	<ul style="list-style-type: none"> ♦ Correct knowledge of products; ♦ Customer need assessment and Advisory Skills ♦ Communication and Selling Skills ♦ Customer service and Inter personal skills
	Officer and Trainee	<ul style="list-style-type: none"> ♦ Lack of in-depth Product Knowledge ♦ Poor Written and verbal communication Skills ♦ Inadequate Inter-personal skills
	Customer Service Executives	<ul style="list-style-type: none"> ♦ Limited Computer skills ♦ Limited Accounting knowledge ♦ Inadequate Communication Skills

4.24.8 Recommendations

Future Growth Opportunities in Rajnandgaon

In the context of the current economic profile and proposed investments of the district, the demand for human resources at various skill levels has been analyzed. The observations have been augmented by primary interactions with industry & industry association representatives in the district and government officials at the state and district level. Based on our analysis and considering factors like high growth and employment potential, priority sector for the state government, investment trends, etc., the following sectors/industries have been identified with future growth opportunities for employment and subsequently, skill development in Rajnandgaon.

Table 401: Key Growth Sectors - Rajnandgaon

#	Priority Sectors	Growth opportunities in skills development and employment
1	Agriculture	<ul style="list-style-type: none"> Agriculture was providing employment to around 77% of the workers in the district in 2013 & is expected to grow at around 3% over the next decade (2012-22). Agriculture is anticipated to be the residual & largest incremental employer in Rajnandgaon accounting for around 30.4% of the total incremental demand for manpower. It is expected to provide employment to around 46,217 additional workers over the decade.
2	Manufacturing (mineral/metal based units)	<ul style="list-style-type: none"> Manufacturing units of mineral/metal based entities is projected to be the 2nd largest employer in the district with approximately 16.8% of the total incremental demand for employment estimated to come from this sector over the period 2012-22. In absolute terms, the sector is likely to employ around 25,504 additional workers in Rajnandgaon over the next decade. The total investment of Rs 14,033 crores proposed for installation of Steel plants, Sponge iron units, captive power plants, clinker and cement industries, coke oven plants etc. in Rajnandgaon⁴⁴³ along with the captive power plant proposed by Lanco Solar Private Limited with an investment potential of Rs. 4,250 crore indicates the significant potential for growth in the Industry sector in the district.
3	Building and Construction	<ul style="list-style-type: none"> Construction is another major contributor in the district economy which contributed around 8% to the GDDP in 2013 and is expected to grow at 12.9% over the decade (2012-22). The total budgeted value for ongoing building and construction activities (building and roadwork) in Rajnandgaon for the year 2013-14 is allocated at Rs.319 crores⁴⁴⁴. Building and construction is projected to be the one of the major contributors in the incremental demand for manpower with approximately 13.6% of the total demand for incremental employment estimated to come from the sector. It is expected to provide employment to around 20,722 additional workers over the decade.
4	Trade (Wholesale + Retail)	<ul style="list-style-type: none"> Trade (Wholesale+ Retail) is estimated to grow at around 6.8% in the period 2012-22. The booming manufacturing industry in the district, especially sponge iron, steel, clinker and cement and the presence of a number of micro and small enterprises along with the growth in building and construction activities has enabled the trade of raw materials as well as finished products in the district resulting in increasing manpower demand in the sector.

⁴⁴³ State Investment Promotion Board (As on 31-03-2011)

⁴⁴⁴ Chhattisgarh Public Works Department

#	Priority Sectors	Growth opportunities in skills development and employment
		<ul style="list-style-type: none"> It is anticipated to be the 4th largest employer of the district, providing employment to about 6% of the total incremental workers in Rajnandgaon over the period 2012-22.
5	BFSI	<ul style="list-style-type: none"> BFSI is another major contributor in the district economy which has share of around 6% to the total incremental demand for manpower and is expected to grow at 10.6% (2012-22). The sector is likely to have an estimated incremental demand for around 9,265 workers over the decade esp. for the job roles like financial intermediaries and business correspondents.
Source: Deloitte Analysis		

Considering the economic and skill landscape of Rajnandgaon, the table below indicates the priority areas of focus for key stakeholders involved. These observations have been mainly derived from the growth opportunities identified above and through primary interactions with industry and industry association representatives in the district along with inputs from the students, training institutes and government.

Table 402: Key Recommendations for Stakeholders - Rajnandgaon

Stakeholder	Priority Areas
NSDC	<p>NSDC can focus the efforts of its training partners in the key sectors identified in the district, viz.</p> <ul style="list-style-type: none"> Agriculture Manufacturing – Mineral & metal based Building and Construction Trade (Wholesale + Retail) BFSI
Private training providers	<ul style="list-style-type: none"> There is a need for more courses in manufacturing (mineral/metal based) owing to the likely demand for more trained workers in the sector. Additionally, courses in agriculture, building and construction, trade (wholesale + retail) and BFSI can also be explored. The training institutes should facilitate more industry tie ups especially in high growth sectors to focus on up skilling the existing workers as per current industry trend & requirements. The private training providers should collaborate with the Directorate of Commerce & Industry for program design and training delivery in the manufacturing sector. They should invite senior persons from the Directorate as guest lecturers in an effort to expose the trainees on the latest trends in the sector. The private training providers should also facilitate exposure visits of their trainers to the relevant industries to provide awareness on updated industry requirements and practices. There is a need for design and delivery of bridge courses with a focus on communication, language, basic IT and soft skills to make students job ready as highlighted in youth survey as well.
Government	<ul style="list-style-type: none"> The Government should promote and endorse vocational education as a practical alternative to formal education with emphasis on providing job ready courses. Vocational training and soft skill development programmes can be introduced at secondary education level (e.g. Himachal Pradesh and Haryana). The Government should mandate accreditation of colleges to initiate sustainable improvement in quality of education The CSSDA can set up awareness camps and temporary training centres within villages to provide skill development trainings to the youth. Inaccessibility to the training institutes was one of the major concerns highlighted by the rural youth in the district. Primary interactions indicate that farmers are not willing to undergo trainings of 2-3 months duration. Trainings of shorter duration (1-2 week) will lead to increased participation of farmers. Also, the timing of the training is critical and may be aligned with lean cropping seasons, or just prior to the cultivation seasons.

Stakeholder	Priority Areas
	<ul style="list-style-type: none"> • The Directorate of Horticulture & Farm Forestry should arrange training and extension activities on areas like organic farming, soil conservation techniques; pest management etc. in the district owing to the dependence of the majority of the population on Agriculture. These training activities should be undertaken in tie-ups with the VTP's as well as NSDC partners operational in Rajnandgaon. • Lack of Basic literacy and numeracy skills, and risk assessment hinders farmers to operate their farms as a profitable and sustainable business activity. More courses may be offered in this area coupled with organizing agricultural extension and demonstration trainings. • To encourage self-employment, the MSME-DI, Raipur should arrange multiple product-cum- process oriented programs in the district like Entrepreneurship Skill Development programmes (ESDPs), Entrepreneurship Development Programmes (EDPs), Industrial Motivation Camps (IMCs), BSDPs etc. for different groups of unemployed youth, people from weaker sections of the society, minorities, SCs & STs, technocrats, etc. with an objective of developing entrepreneurial qualities and preparing new entrepreneurs to setup their own small enterprises.
Industry	<ul style="list-style-type: none"> • More industry interactions should be initiated in the agriculture, manufacturing (mineral/metal based), building & construction, trade (wholesale + retail) and BFSI sectors in the district. • Industry players should provide inputs in curriculum for ITIs and skill development institutes to improve the practical component of learning. Approximately 49% of the students surveyed in Rajnandgaon expressed their dissatisfaction with the alignment of the training/education currently provided by the educational institutes in the district with the potential job requirements of the employers. • The major private players as well as public sector enterprises in the state should undertake and encourage vocational training as part of their CSR activities either by partnering with the Skill Development Institutes for training or providing funds/resources for the same.

4.25 Sukma

4.25.1 District Profile

Sukma district is located in the southern most portion of Chhattisgarh. The district is a part of Bastar division. It was carved out from erstwhile Dantewada district in 2012⁴⁴⁵. It is surrounded by Bijapur on the west, Dantewada and Bastar on the north, Orissa (Malkangiri district) on the east and Andhra Pradesh (Khammam district) on the south and south-west. It extends over an area of 5636 sq. Km⁴⁴⁶, which is 4.2% of the total state area. The district is divided into 3 tehsils viz. Konta, Sukma, Chhindgarh, 132 gram panchayats, 3 Janpad Panchayats, 3 Nagar Panchayats, 7 Revenue Circles and 62 Patwari Circles⁴⁴⁷. The town of Sukma is the district headquarters. The forest cover of Sukma is higher than the state average & comprises of very dense forest (9.6%), moderately dense forest (54.4%) and open forest (36.0%)⁴⁴⁸.

Map 26: Sukma District

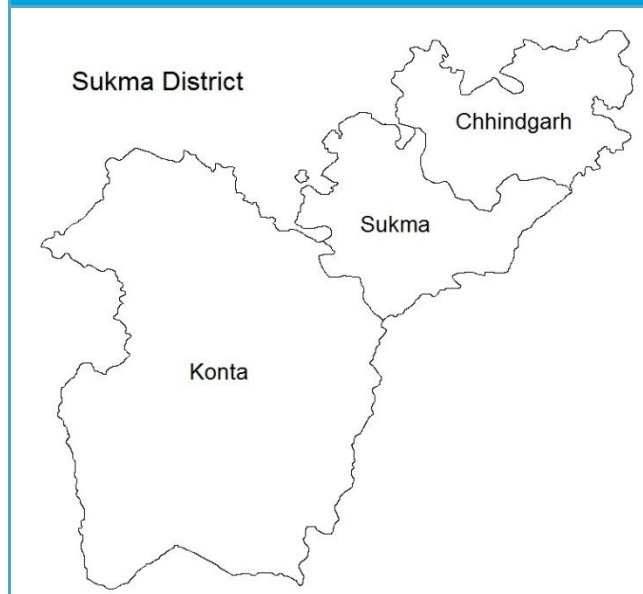


Table 403: Sukma District Profile

#	Indicator	Sukma	Chhattisgarh	% Share
1.	Area, in sq.km.	5636	135,190	4.2
2.	No. of sub-districts	3	149	2.0
3.	No. of inhabited villages	379	20126	1.9
4.	No. of households (in lakhs)	0.57	56.50	1.0
5.	Average Land holding size (Ha)	1.20*	1.17	-
6.	Forest area cover	64.24%**	41.18%	-

Source: Census 2011; Directorate of Economics and Statistics- Govt. of Chhattisgarh; Forest survey of India, Ministry of Environment & Forest, 2011; <http://dantewada.gov.in/Sukma.html>

* Data is for undivided Sukma (includes Dantewada)

** Data is for undivided Sukma (includes Dantewada and Bijapur)

⁴⁴⁵ <http://dantewada.gov.in/Sukma.html>

⁴⁴⁶ <http://dantewada.gov.in/Sukma.html>

⁴⁴⁷ Census 2011 and <http://dantewada.gov.in/Sukma.html>

⁴⁴⁸ Forest survey of India, Ministry of Environment & Forest, 2011, Data is for undivided Sukma (includes Dantewada and Bijapur)

4.25.2 Demography

As per Census 2011, Sukma has a population of 2, 49,988 of which 88.7%⁴⁴⁹ of the people reside in the rural areas. The decadal population growth in Sukma during 2001-2011 was 15.6%. As of 2011, Sukma is the 2nd least populated district of Chhattisgarh, the least populous district being Narayanpur. The population density at 45 persons⁴⁵⁰ per sq. km is much lower than the state average of 189. About 62.3% of the population is in the working age population class group. The district has a much lower per capita income than the state average and ranks 26 amongst all 27 districts in terms of per capita income.

Table 404: Demographic Indicators of Sukma

Demography	Sukma	Chhattisgarh
Population (2011)	2,49,988	2,55,40,196
Population 15-24 (2011)	51,042	49,89,339
Decadal Population Growth Rate (2001-11)	15.6%	22.6%
Population density per sq. km (2011)	45	189
Percentage of Urban Population (2011)	11.3%	23.2%
Percentage of SC population (2011)	2.4%*	12.8%
Percentage of ST population (2011)	76.9%*	30.6%
Average household size	4.41*	4.54
Sex Ratio (2011)	1018	991
Working age population (15-59) as a percentage of total population, %	62.3%	60.1%
Per Capita Income (2009)	Rs. 12,053 ⁴⁵¹	Rs.28,263
Source: Census of India 2011; Directorate of Economics and Statistics- Govt. of Chhattisgarh; Deloitte Analysis		
* Data is for undivided Sukma (including Dantewada)		

Key Observations:

- ♦ The district has significantly lower per capita income (Rs.12, 053) in comparison to the state average of Rs.28, 263.
- ♦ The sex ratio of Sukma is higher than the state figure with around 1018 females per 1000 males.
- ♦ The district has one of the highest populations of Scheduled Tribes (76.9%) in the state.

⁴⁴⁹ Census 2011

⁴⁵⁰ <http://dantewada.gov.in/Sukma.html>

⁴⁵¹ At 2004-05 constant prices; Deloitte Analysis

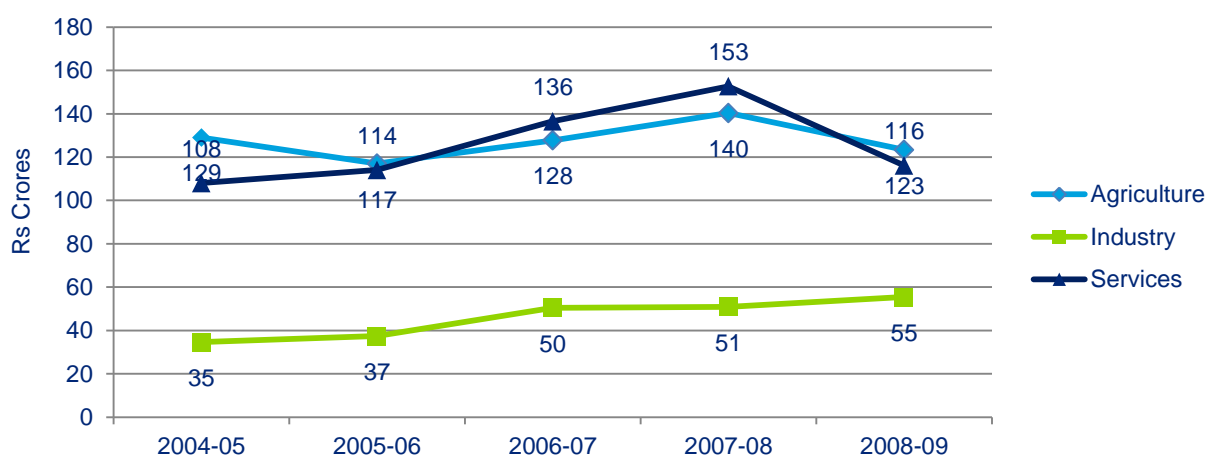
4.25.3 Economic Profile

Sukma was formed in the year 2012 after it got separated from Dantewada. As per the analysis, the GDDP of Sukma in the period 2005-2009 has grown at a CAGR of 2.1% which is much less than the state growth rate of 9.6% during the corresponding period. With an economic output of Rs 294.9 Cr. (2008-09), Sukma district had the 2nd least Gross District Domestic Product (GDDP) amongst all districts in Chhattisgarh contributing around 0.43% in the Gross State Domestic Product⁴⁵².

The economy of Sukma district is pre-dominantly Agriculture sector based, with its share in GDDP being 41.8% in 2008-09. This is followed by Services sector with 39.4% share in the GDDP and the Industry sector at a share of 18.8%. The Industry sector has grown consistently over the period 2005-09 and has shown the highest growth rate in the district over the period 2005-2009 with a CAGR of 12.5%. It is followed by Services sector which registered a CAGR of 1.8%.

The sector-wise GDDP growth and distribution from 2005-2009 is given in the figures below:

Figure 428: Sectoral Share of GDDP, 2004-05 to 2008-09, Sukma



Source: Directorate of Economics and Statistics- Govt. of Chhattisgarh (2004-05 base price); Deloitte Analysis

⁴⁵² Directorate of Economics and Statistics-Chhattisgarh; Deloitte Analysis

Agriculture Sector

The contribution of Agriculture sector (agriculture, forestry & logging and fishing) to GDDP was 41.8% in 2008-09. Agriculture is the main contributor in the total output of the Agriculture sector contributing about 73% of the sectoral output in the year 2008-09.

The tribal people of the region mostly use traditional methods of farming. Most of the farmers use wooden ploughs and bullock carts with the use of iron ploughs and tractors being negligible.

The main crops grown in the district are paddy, Urad, maize, Moong, Niger, kulthi. Being a rain-fed crop, rice is grown predominantly during kharif season, but the productivity of this crop is very low due to the use of traditional agricultural implements in farming, low fertilizer consumption and absence of irrigation facilities.

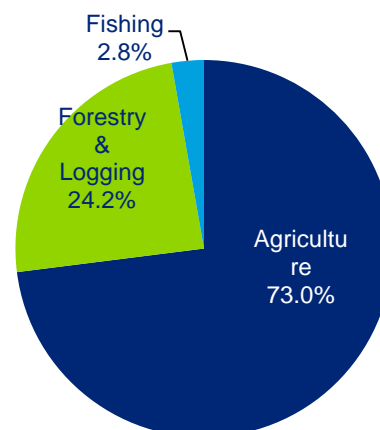
Additionally, the collection and sale of forest produce like Tendu leaves, Sal seed, Medicinal plants, bamboo, lac and honey supplements the agricultural incomes of the inhabitants. The forests also provide for people's consumption needs — fuel and firewood, medicines, food and drink, implements and housing materials. The important non nationalized species available in the district are Palash, Imli, Mahua, Chironjee, Shahad, Aonla, Satawar, Kalijeeri, Baibiding, and Kalmegh.

Industry Sector

The Industry sector (mining & quarrying, manufacturing, construction and electricity, gas & water supply) contributed 18.8% to the GDDP in 2008-09.

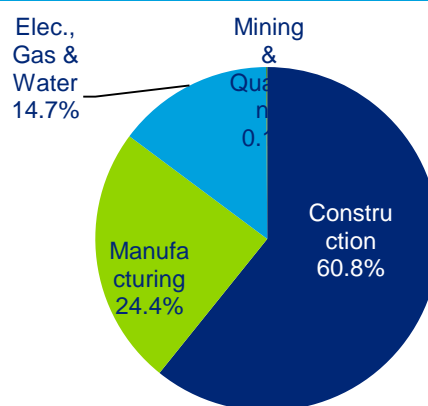
Sukma is rich in mineral resources. Tin ore deposits are found at various places in the district like Govindpal, Mundwal, Chitalnar, Berykupli, Churwada, Kachiras, Madkamiras, Kirkipal, Bodawada, Puspall and Litiras. Granite deposits of around 3000 Lakh Ton Cubic Meters have been detected in Konta region of the district. About 3456 Ton of Lapidolite deposits have been found in areas such as Govindpalli, Mundwal of Konta tehsil. Approximate deposits of around 800 Lakh Ton of Marble has been identified at Sukma area. Heavy deposits of Silimanite/ Kyanite have been unearthed at Kerapal & Koyavekur of Konta Tehsil. In

Figure 429: Sub-sectoral break-up of Agriculture sector (2008-09), Sukma



Source: Directorate of Economics and Statistics- Govt. of Chhattisgarh; Deloitte Analysis

Figure 430: Sub-sectoral break-up of Industry sector (2008-09), Sukma



Source: Directorate of Economics and Statistics- Govt. of Chhattisgarh; Deloitte Analysis

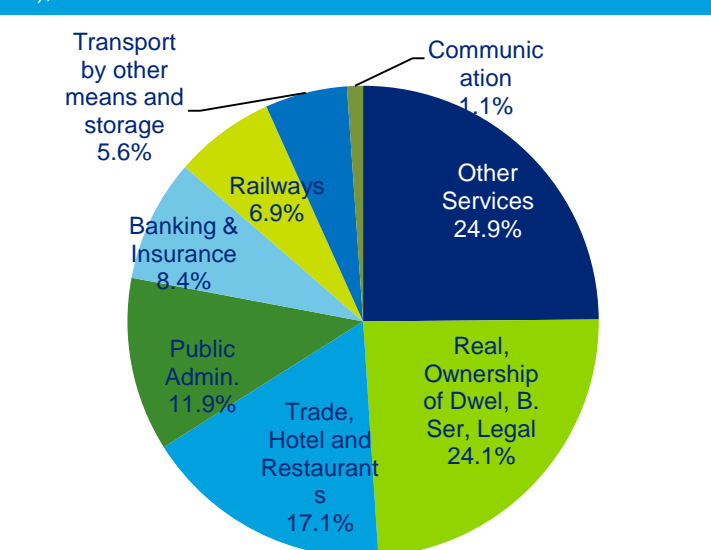
the recent investigations by Mining department, approximately 500 Ton industrial grade deposit of Corundum has also been discovered in Sukma region. The total mineral revenue receipt for 2012-13 in Sukma was Rs 3.78 lakhs.⁴⁵³

Construction contributed about 60.8% to the Industry sector in 2008-09. The total budgeted value for ongoing building and construction activities (building and roadwork) in Sukma for the year 2013-14 is allocated at Rs. 21 crores⁴⁵⁴. There are no large scale industries in the district. The key industries of the district include Stone crusher plants, Granite Stone, Rice mill/Saw mills, Furniture market, Fabrication, Power Plant and Plywood Industry. Agro based industries are the key industry in the MSME sector in terms of investment as well as employment. The tribes of the region are also famous for their exquisite handicrafts. They are experts in crafting artistic items with Clay, Bamboo, Bell Metal, Terracotta, Wood Carving, Wrought Iron and Sisal/Jute.

Services Sector

The Services sector contributes approximately 39.4% of the Gross District Domestic Product (GDDP) of Sukma in the year 2008-09. The key contributor to the Services sector (24.9%) is other services which include education and skill development, healthcare services, social work and select informal sectors. Real estate services, renting and business activities contributed around 24.1% of the economic activity of the Services sector while Trade, hotels and restaurants with a sectoral contribution of 17.1% was the next highest contributor to the sector. Sukma is connected to Jagdalpur by the National Highway NH-221 (connecting Vijayawada in Andhra Pradesh and Jagdalpur in Chhattisgarh.). With a CAGR of about 16.9% and 19.8% over the period from 2005-2009, communication and banking & insurance sectors respectively was one amongst the fastest growing sectors in the district, though their absolute sizes are small.

Figure 431: Percentage contribution to the Services sector (2008-09), Sukma



Source: Directorate of Economics and Statistics- Govt. of Chhattisgarh; Deloitte Analysis

Key Observations:

- ♦ The economy of Sukma district is pre-dominantly Agriculture sector based, with its share in GDDP being 41.8% in 2008-09. This is followed by Services sector with 39.4% share in the GDDP and the Industry sector at a share of 18.8%.
- ♦ The Industry sector has grown consistently over the period 2005-09 and has shown the highest growth rate in the district over the period 2005-2009 with a CAGR of 12.5%. It is followed by Services sector which registered a CAGR of 1.8%.

⁴⁵³ Source: Directorate of Geology & Mining, Chhattisgarh

⁴⁵⁴ Chhattisgarh Public Works Department

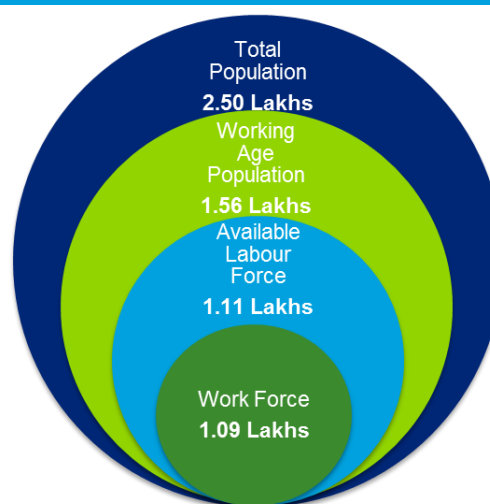
4.25.4 Employment Profile

With a population of 2, 49,988 in the year 2011, Sukma accounted for less than 1% share in the state's population.

The adjacent figure presents the estimated workforce in Sukma in the context of the total population of the district. Out of the total population of 2.5 Lakhs, the working age population (between 15-59 age group) constitutes nearly 62.3%.

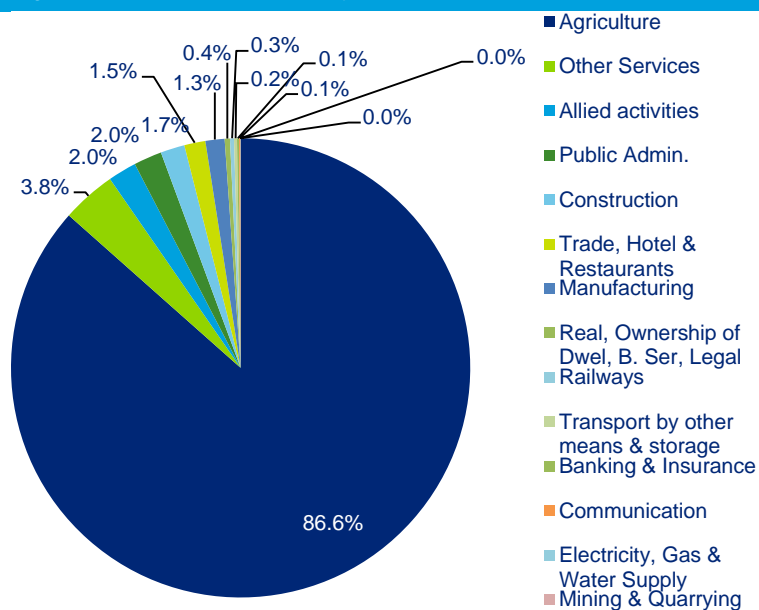
Based on the labor force participation rate and the worker participation rate estimates for the state, the available labour force is estimated to be 1.11 lakhs, and the workforce is estimated at 1.09 lakhs or nearly 70% of the working age population. As of 2011, more than four-fifth of the workforce in the district is engaged in Agriculture sector, followed by the Services sector which employs 12.3% of the workforce and Industry sector which employs approximately 8.8% of the total workforce.

Figure 432: Total Workforce in Sukma (2011)



Source: Census 2011 and Deloitte Analysis

Figure 433: Sector wise employment in Sukma (2011)



Source: Census 2011 and Deloitte Analysis

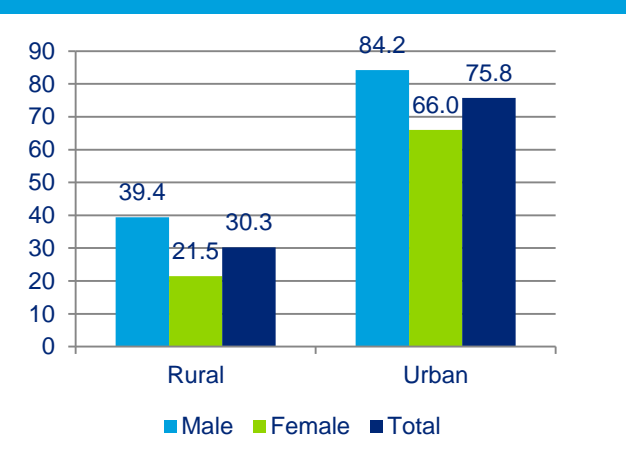
The sector-wise employment of Sukma for the year 2011 has been shown in the adjoining figure. Agriculture contributed to 86.6% of the total employment in the district. Other service was the second highest employer in the district (3.8%), followed by activities allied to agriculture (2.0%), public administration (2.0%) and construction (1.7%). There exists disparity between the sector contribution to GDDP and the proportion of people employed for the sectors. Sectors like construction and Real estate services, renting and business activities show very little proportion of employment when compared to the GDDP contribution

as opposed to Agriculture which employs the bulk of people while contributing much less to the GDDP. The top five sectors in the district in terms of employment account for around 96% of the total employment of the available workforce in Sukma in 2011

4.25.5 Education Infrastructure

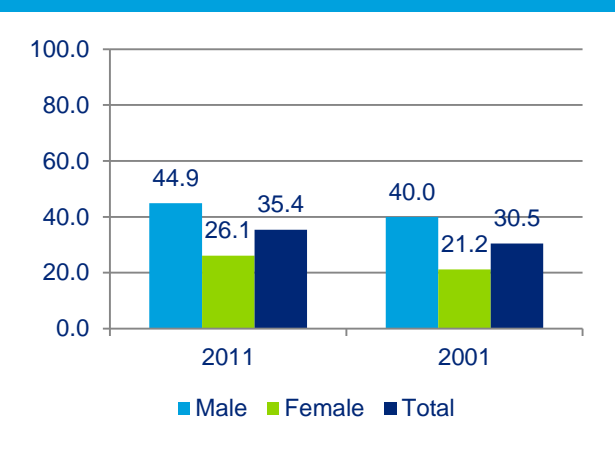
The literacy rate in Sukma has improved from 30.5%⁴⁵⁵ in 2001 to 35.4%⁴⁵⁶ in 2011. However it is significantly less as compared to the state's literacy rate of 70.3% as well as the all-India literacy rate of 73%. In 2011⁴⁵⁷, male and female literacy rates in Sukma was 44.92% and 26.14% respectively, both figures considerably improving since 2001⁴⁵⁸, where the figures stood at 39.97% and 21.18% respectively. There exists a significant disparity (45.5%) between the rural and urban literacy rates.

Figure 434: Literacy rate 2011 (by residence), Sukma



Source: Census of India 2011

Figure 435: Literacy rate (by Gender), Sukma



Source: Census of India, 2001 and 2011

* Data for 2001 is for undivided Dantewada

School Education

Sukma has 764 primary schools, 244 upper primary schools, 23 secondary schools and 14 higher secondary schools. Net enrolment ratio (NER) at the upper primary level (28.4%) is considerably lower than the state NER of 67.8%.

Table 405: Status of school education infrastructure in Sukma, 2013

#	Educational Statistics	Units in Sukma	Units in Chhattisgarh	% Share of District in State
1	Primary School	764	35588	2.1%
2	Upper Primary School	244	16442	1.5%
3	Secondary School	23	2632	0.9%
4	Higher Secondary School	14	3548	0.4%
5	NER (Primary) (2010-11)	93.7%*	98.0% ⁴⁵⁹	-
6	NER (Upper Primary) (2010-11)	28.4%*	67.8%	-

Source: District Report Cards, DISE
* Data is for undivided Sukma (including Bijapur and Dantewada)

⁴⁵⁵ Census 2001; Data is for undivided Sukma (including Dantewada and Bijapur)

⁴⁵⁶ Census 2011

⁴⁵⁷ ibid.

⁴⁵⁸ Census 2001; Data is for undivided Sukma (including Dantewada and Bijapur)

⁴⁵⁹ Data is for 2008-09

Vocational Education

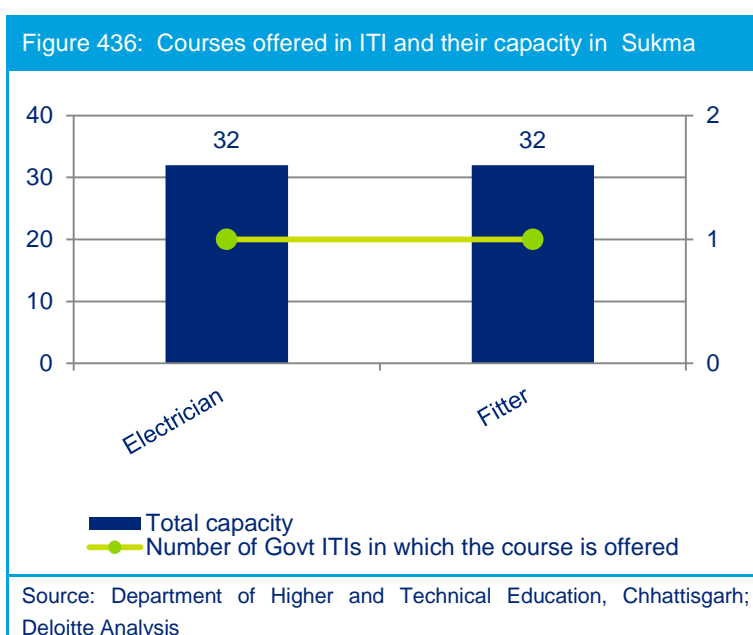
There is only 1 ITI in the district which is a Government Industrial Training Institute. There is no woman ITI in Sukma. The total capacity of the ITI is 64. The ITI offers courses in Electrician and fitter trades. The number of courses available in the ITI and its capacity is listed in the table below:

Table 406: ITIs in Sukma and their capacity

Name of ITI	Number of courses offered	Total Units affiliated	Total Capacity
Government Industrial Training Institute, Kanta(Sukma)	2	4	64

Source: Department of Higher and Technical Education, Chhattisgarh; Deloitte Analysis

The courses offered in the ITI and their capacity in Sukma is provided in the figure below



According to Chhattisgarh State Skill Development Mission Website, as of 12th March 2014, Sukma has 12 Vocational Training Providers (VTPs) under which there are 582 registered beneficiaries.

The following table highlights the courses offered in vocational education, which currently meets the requirement of about 11 sectors.

Table 407: Courses offered in vocational education, Sukma

Sector	ITI trades and Units affiliated	Courses Offered by VTPs
Auto and auto components Electronics and IT hardware Chemicals and pharmaceuticals	Electrician(2), Fitter(2)	Electrical, Fabrication, Automotive Repairs, Production and Manufacturing
IT and ITES Organized retail Banking, financial services and insurance		ICT, Soft skill
Textiles and clothing		Garment making
Building, construction and real estate Construction material and building hardware Furniture and Furnishing		Construction, Carpentry
Unorganized sector (particular reference to agriculture, security, plumbing, domestic worker, foundry, etc.)		Handmade paper and paper products, Wood Work, Agriculture
Source: CSSDA Website		

As of January 2014, there are no NSDC partners present in the district.

Higher Education

The status of higher education in Sukma is not very promising. Out of a total of 590 colleges present in the state, only 3 colleges are in the district of Sukma indicating the district's share in the higher education space of the state at just 0.5%. This is lower in comparison to the share of population of Sukma to the state (1%). Out of the 3 colleges present in the district, 2 are Govt. colleges offering general degree courses while 1 is a non-Govt. teacher education college. The colleges are affiliated to Bastar University.

The break-up of the number and capacity of higher education institutes in Sukma is given below.

Table 408: Number and Capacity of Higher Education infrastructure in Sukma

#	Colleges	Number	Estimated Capacity*
1	Arts, Science and Commerce	2	-
2	Teacher Education	1	-
	TOTAL	3	-
*Source: University/College websites			

Key Observations:

- ✦ The share of Sukma in the higher education space of the state is just 0.5%.
- ✦ Out of the 3 colleges present in the district, 2 are Govt. colleges offering general degree courses while 1 is a non-Govt. teacher education college.

4.25.6 Youth Aspirations

Youth population constitutes the most important demographic section for a district from a skills development perspective. In the process of capturing the aspirations of the youth population in Sukma, focused group discussions were held with youth from educational institutions as well as residing in rural areas to understand their concerns, areas of interest and future dreams and goals. The FGD in Sukma was conducted at the Gongla Gram Panchayat. In terms of the profile of the respondents, around 52.4% of the respondents were in the age group 15-20 while 42.9% of them were between 21-25 years. Remaining respondents were 26 years and above. The educational qualification of about 95% was high school level or below while the remaining 5% of them were graduates or above.

The key observations about aspirations of the youth of the district are highlighted below:

Table 409: Youth Aspiration – Key Responses – Sukma

Parameters	Responses
Job Preference	<ul style="list-style-type: none"> Most of the youth preferred Government jobs over private jobs due to the job security offered in a Government job. They also preferred regular/ salaried employment over self-employment. Women want to be employed as Anganwadi workers in schools.
Preferred Course	<ul style="list-style-type: none"> Majority of the students want to get training in trades like COPA (Computer Operator and Programming Assistant), Electrician, Fitter and Welder etc. Women want training and financial aids to start tailoring, beauty parlor etc.
Migrating for job	<ul style="list-style-type: none"> Majority of the youth (esp. women) want to work within the district.
Salary Expectations	<ul style="list-style-type: none"> Average monthly salary expectation of youth ranges between Rs. 10000-12000/-
Areas of concern/ aspirations- Infrastructure	<ul style="list-style-type: none"> Youth reported poor quality of infrastructure in the institutes in terms of building, computer, equipment in the school, drinking water, etc.
Areas of concern/ aspirations-Course Curriculum	<ul style="list-style-type: none"> Youth expressed that there should be more emphasis on computer courses in the institutes. They feel that representatives from government training institutes and industries should visit the institutes to disseminate information.
Suggestions given by youth	<ul style="list-style-type: none"> The youth expect Govt. to take up initiatives to improve college infrastructure. Youth expressed that Govt. should take measures to provide proper education facilities to the poor people. There should be more courses, practical classes, resourceful, efficient and regular teachers available in the institutes. The Government should open new institutes with more trades.

The findings of the sample survey conducted with youth at the gram panchayat level & those coming out from various educational institutions (Government & private) are presented below:

Job preference by youth

The majority of the youth surveyed (41%) **prefer to get a job within their district** as is evident from the adjacent figure. Approximately 4.5% of them preferred job within their state of residence. On the other hand around 54% of the students are willing to migrate outside Chhattisgarh in search of suitable job opportunities. The survey highlights the fact around **54.6% of the youth surveyed are willing to migrate outside Chhattisgarh** with regard to future employment prospects while the remaining 45.4% prefer jobs inside the state.

Parameter for Institute Selection

The majority of the students surveyed (54.5%) quoted the **quality of education in the institute** as their prime parameter while selection of an institute for higher education. The remaining 45.5% make a choice for institutes with respect to better employment prospects and opportunities.

Youth Perception Mapping

Youth perception mapping was undertaken to understand their level of satisfaction with either their current institute or their experience and feedback on the available educational infrastructure. The results are summarized below:

Low satisfaction with placement / jobs available

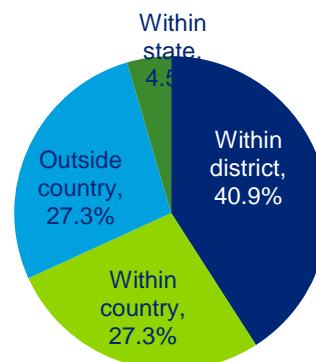
post training: Almost all the students (100%) surveyed felt the job opportunities available to them post training were not satisfactory. They shared their expectation of being provided with a placement opportunity by the institute and provide better work environment in work places

Non-availability of latest technologies and equipment for training: Almost all the students (100%) surveyed expressed their dissatisfaction with the availability of latest technology & equipment for training in the institute. They felt the lack of equipment as a major constraint for their knowledge enhancement and appropriate level of skill development. They demanded that the institutes to be adequately equipped and upgraded with latest technology.

Dissatisfaction with capability of institute's faculty in teaching: Almost all the students (100%) surveyed feel the quality of teaching by faculty in the institute is not satisfactory and needs significant improvement. They demanded the number of faculty to be increased as per the demand of the course and more trades need to be provided in the colleges.

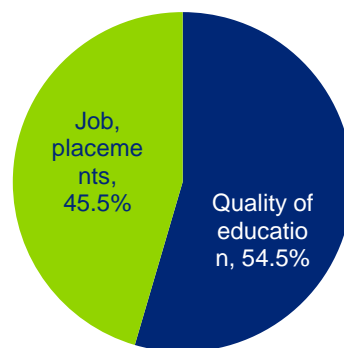
Need for better access to information to make an informed career choice: Almost all the students (100%) surveyed were dissatisfied as far as access to information to make an informed career choice is concerned. They felt that they did not get proper accessibility to information to make an informed career

Figure 437: Job Preference by Youth



Source: Deloitte Analysis

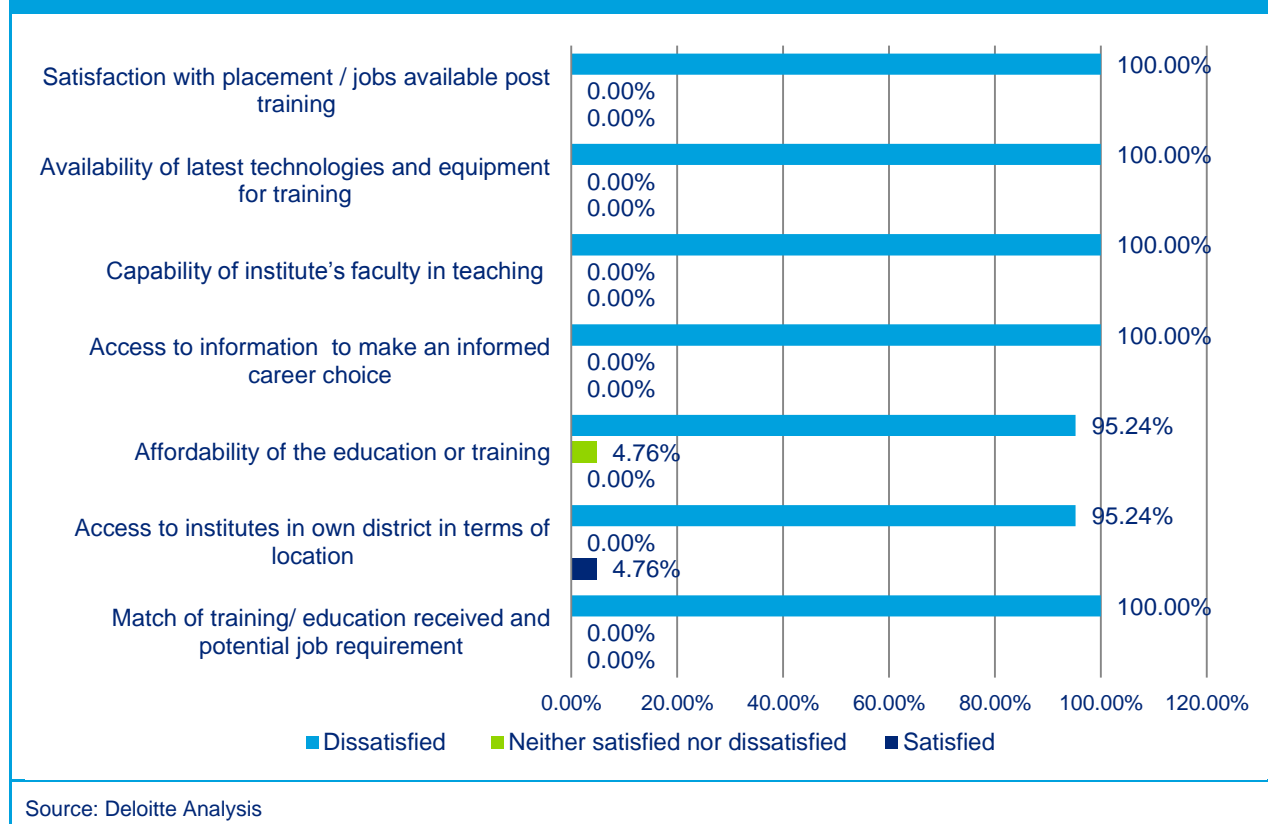
Figure 438: Parameter for Choice of Institute



Source: Deloitte Analysis

choice. This showcases the importance of having career counseling to the potential students either at the school level or at the respective vocational institutes.

Figure 439: Youth Perception Mapping, Sukma



Affordability is as high a concern as quality and value for money in education or training: Majority of the students (around 95.2%) felt that the fees charged by the education/ training institute were a barrier for them and considered it to be unaffordable for them. They also raised their concern that the quality of the training programme offered should be commensurate with the fees charged.

Access to institutes is an issue in rural areas: 95.2% of the students surveyed expressed their dissatisfaction with the accessibility of the educational institutes in terms of location. They felt the educational institutes to be inaccessible in terms of location.

Dissatisfaction with the alignment of training/education received with job requirements: Almost 100% of the students surveyed felt that the training/ education received by them did not match the potential job requirements of the employers and there is a need to align the training/education provided in the district in terms of job requirements of the business.

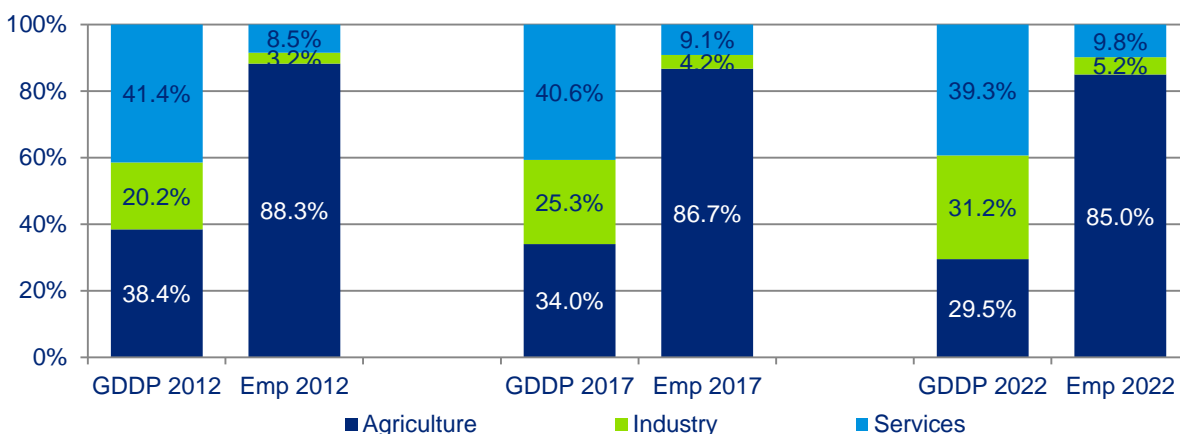
Key Observations:

- ♦ Most of the youth preferred Government jobs over private jobs due to the job security offered in a Government job. They also preferred regular/ salaried employment over self-employment. Women want to be employed as Anganwadi workers in schools.
- ♦ Majority of the students want to get training in trades like COPA (Computer Operator and Programming Assistant), Electrician, Fitter and Welder etc. Women want training and financial aids to start tailoring, beauty parlor etc.
- ♦ Majority of the youth (esp. women) want to work within the district with an average monthly salary expectation in the range of Rs. 10,000-12,000/-.
- ♦ Need to address infrastructure gaps - particularly toilet, drinking water, buildings, tools and equipment was expressed by the youth.
- ♦ Youth expressed the need for resourceful and better teachers in the institutes.
- ♦ It was observed that youth are not aware about the different Government initiatives on skill development.

4.25.7 Skill Gap Assessment

The working age population (15-59) constituting 62.3% of total district population in 2011, is expected to increase to 65.0% by 2022. Demand for jobs is expected to increase leading to the need for job creation. Similarly, to reap this demographic dividend, supply of labour must be adequately skilled.

Figure 440: Comparison of Sectoral share in GDDP & Employment, Sukma



Source: Deloitte Analysis

The above figure also depicts the significant disparity in the structures of economy and employment in the district. Based on our analysis and primary interactions, the Agriculture sector is expected to be an important sector in terms of providing employment in the district and would account for the largest share of workforce over the decade. If the trends in employment continue, in 2021-22, the share of employment across the Agriculture sector is expected to decline to 85.0% as compared to 88.3% in 2012.

The Industry and Services sector employment share are estimated to increase 5.2% and 9.8% respectively, as indicated in the table above. This trend appears to be in line with the national trend as well where people are moving out of the Agriculture sector and moving into the Industry and Services sectors respectively.

Incremental Human Resource Demand

As per the methodology, the total incremental demand for manpower in Sukma by 2022 is expected to be 0.13 lakh people. Following table provides the break-up of the incremental demand for manpower in Sukma as per the skill levels required.

Table 410: Estimated Incremental Human Resource Demand ('00s) by Skill Level in Sukma

	2012-17	2017-22	Total
Skilled	9	10	19
Semi-Skilled	15	16	31
Minimally Skilled	42	41	83
Total	66	67	133

Source: Deloitte Analysis

Some of the key trends observed on the demand side include

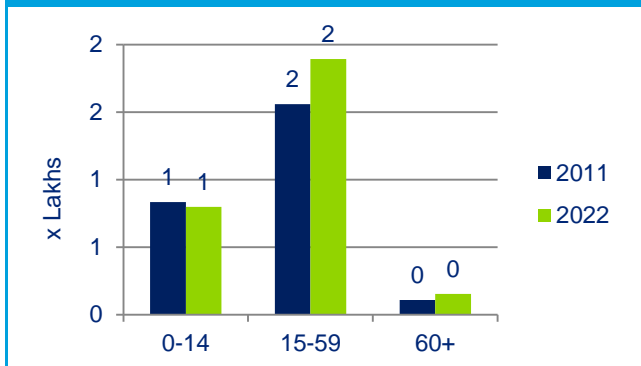
- ♦ *Agriculture and Allied Activities will be the largest incremental demand generating sector (47.9%) with demand largely in the minimally skilled level.*
- ♦ *Within the Industry sector, the greatest incremental demand on employment is expected to come from the building and construction sector (16.2%) followed by food processing (4.4%).*
- ♦ *Within the Services Sector, Public Administration is expected to contribute about 4.3% of the total incremental demand for employment, followed by Education/ Skill development services (3.7%).*
- ♦ *Analysis of formal and informal employment indicates that the incremental demand for manpower in formal sector would mainly come from Building and Construction, Public Administration and Education/ Skill development services.*
- ♦ *Majority of demand for incremental manpower in the informal sector is projected to come from Agriculture, Construction, Food processing, and activities allied to agriculture.*

Table 411: Incremental Human Resource Demand ('00) by Skill Level in Sukma - Key Sectors

#	Sector	2012-17				2017-22			
		Skilled	Semi-skilled	Minimally Skilled	Total	Skilled	Semi-skilled	Minimally Skilled	Total
1	Agriculture	1	3	29	33	1	3	27	31
2	Building & construction	1	4	4	10	2	5	5	12
3	Food processing	0	1	2	3	0	1	2	3
4	Public Administration	2	1	0	3	2	1	0	3
5	Allied activities	0	0	2	3	0	0	2	3
6	Education/ Skill development services	2	0	1	2	2	0	1	2
7	Select Informal Sector	0	1	1	2	0	1	1	2
8	Others	3	5	3	10	3	5	3	12
Overall Incremental Demand					133				
Source: Deloitte Analysis									

Incremental Human Resource Supply

Figure 441: Age wise distribution of population, Sukma - 2011 and 2022 (projected)



Source: Census 2011 and Deloitte Analysis

The population of Sukma is expected to increase from 2.50 lakhs in 2011 to 2.84 lakhs in 2022. The adjacent figure provides the current and projected population across various age groups. As per the analysis, the number and proportion of children in 0-14 age group is projected to fall by about 0.04 lakh children, while the number of persons in the working age group is expected to increase by 0.34 lakh during the same period. This represents a potential demographic dividend for the district with a large increase in the employable population. On the other hand, it presents a huge challenge for the state to make available higher education and skill development facilities as well

as ensure productive employment opportunities for its population.

As per the methodology, the estimated total incremental manpower supply in Sukma over the decade (2012-2022) will be about 0.4 lakhs. Incremental manpower supply can be further classified into skilled, semi-skilled and minimally- skilled as per the education qualifications and estimated output of educational and vocational training institutes in the district.

Table 412: Estimated Incremental Human Resource Supply ('00s) by Skill Level in Sukma

	2012-17	2017-22	Total
Skilled	15	15	30
Semi-Skilled	13	14	27
Minimally Skilled	178	165	342
Total	205	194	399

Source: Deloitte Analysis

Some of the key trends observed on the supply side include

- Proportion of incremental supply of minimally skilled manpower is 85.8%, compared to 7.51% of skilled and 6.7% of semi-skilled manpower (2012-22)
- Sukma accounts for only 0.5% of higher educational institutes in the state as a result of which there is estimated to be a low supply of skilled manpower.
- Sukma has 1 out of 180 ITIs in the state and 12 VTPs in the state, which is much low in comparison to the state total. This accounts for the low share of semi-skilled labour in the district.
- The trend of migration is expected to be inward from other states and districts across all skill levels and would account to nearly 1.3% of the supply.

Incremental Demand Supply Gap

During the period 2012-22, the incremental demand supply gap of the district (across all sectors mentioned above) is expected to be a surplus of 0.27 lakh people (refer table below). There is assessed to be an excess demand across semi-skilled segment with an excess supply expected in the skilled and minimally skilled segments.

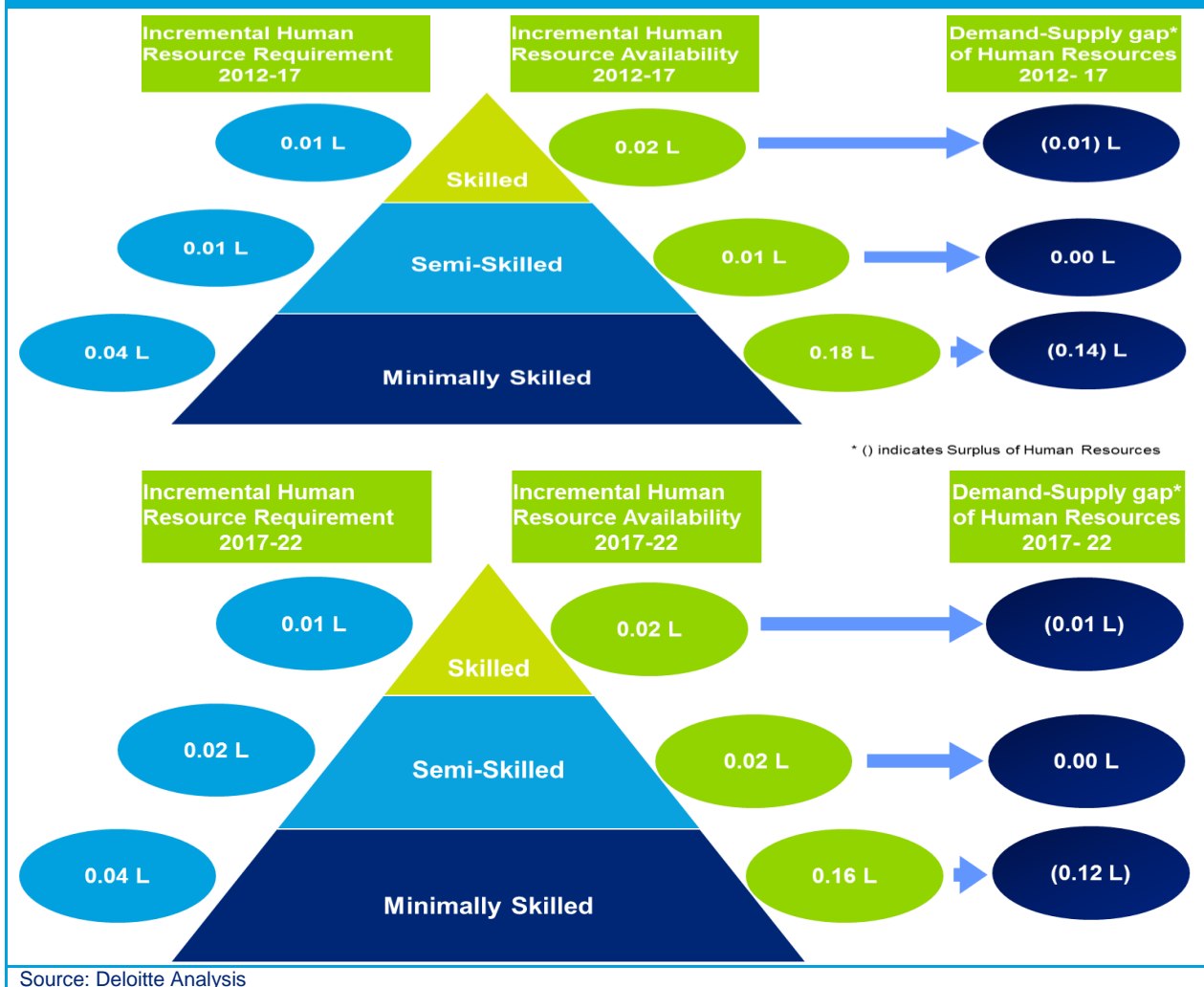
This means the rate of creation of employment in the district has to be augmented with suitable government initiatives in order to absorb the supply of workforce projected to enter the job market. Moreover, it also indicates a potential for skilling the minimally skilled workforce and shift them to the more productive job roles assumed at the higher skill level.

Table 413: Projected Demand Supply gap (in '00s) by skill levels in Sukma

#	District Skill Gap	2012-17				2017-22			
		Skilled	Semi-skilled	Min. Skilled	Total	Skilled	Semi-skilled	Min. Skilled	Total
1	Incremental Requirement (Demand) HR	9	15	42	65	10	16	41	67
2	Incremental Availability(Supply) HR	15	13	178	205	15	14	165	194
3	Demand-Supply Gap	(6)	2	(136)	(140)	(5)	2	(123)	(126)
	Overall Demand-Supply Gap	(266)							
Source: Deloitte Analysis									

During the period 2012-22, the incremental manpower demand supply gap of the district (across all sectors mentioned above) is expected to be about 0.27 lakh with the excess supply across the skilled and minimally skilled segments as shown in the adjoining figure.

Figure 442: Incremental Demand-Supply Gap (in lakhs) , Sukma



Some of the key trends observed on the demand-supply gap include

- The composition of the human resource demand supply gap over the two different time periods i.e. 2012-17 and 2017-22 is anticipated to remain the same.
- The excess supply in the skilled segment is expected to continue over the decade. Due to the excess supply, skilled workers may need to seek job opportunities outside the district.
- The supply and demand are expected to match for semi-skilled labour in the district for the two time periods. However, in terms of educational qualification, approximately 47% of the total semi-skilled workforce is estimated to be class 12 pass outs having undergone no job/skill specific training. This indicates that most of the surplus supply of semi-skilled labor is actually untrained, and if only outputs of semi-skilled workers from ITI/VTPs are considered, there is a supply deficit in that category also. In addition, primary interactions have raised **employability & deficit in specific jobs/ skills amongst the workers** as major concerns despite high overall supply in semi-skilled category. These have been captured in the qualitative skill gaps section below.

- ♦ As indicated in the figures above, the excess supply of minimally skilled human resources is estimated to reduce owing to the greater focus of the state on improving school education, and providing an impetus in the skill development space.

Qualitative Skill Gaps

The qualitative skill gaps that were highlighted during our primary interactions with industry at Sukma are provided in the table below.

Table 414: Qualitative Skill Gaps

Sector	Level	Skill Gap
Agriculture	Tractor operator and mechanics/ Electricians/ Mechanics for repair & maintenance of agricultural tools & implements	♦ Sufficient training to address tool & equipment failures like motor pump failure, gear damage, tyre puncture etc.
	Project Managers/Engineers	♦ Knowledge of design and tools such as AutoCAD etc. ♦ Knowledge of green/eco-building design ♦ Project Management and People Management Skills ♦ Knowledge of appropriate safety practices
Building & construction	Supervisors: plumbing, electrical, carpentry, masonry, drilling	♦ Skills in civil- operations of ready mix m/c, earth movers, etc. ♦ Basic repair and maintenance ♦ Exposure to right methodology in construction specific skills like lining, leveling etc. ♦ Site safety concepts and procedures
	Workmen: plumbing, electrical works, carpentry, masonry, drilling	♦ Basic operating skills related to relevant category ♦ Improved/ better quality in finishing ♦ Site safety concepts and procedures ♦ Ability to understand & follow instructions/ manuals
Food Processing	Procurement Managers	♦ Ability to forecast demand and undertake procurement accordingly ♦ Ability to locate and enter into relationships with farmers
	Plant Associates and operators	♦ Limited basic engineering knowledge esp. on practical aspects, process knowledge e.g. distillation
	Material Handlers	♦ Limited awareness on quality, health and hygiene awareness ♦ Limited basic computer skills including barcode reading
	Sales and marketing	♦ Limited Communication skills, ability and willingness to understand the manufacturing process
	Machine Operators	♦ Insufficient knowledge of machine operation and use ♦ Ability to understand & follow instructions/ manuals ♦ Limited ability to carry out basic repairs and troubleshooting
	Supervisors: plumbing, electrical, carpentry, masonry, drilling	♦ Skills in civil- operations of ready mix m/c, earth movers, etc. ♦ Basic repair and maintenance ♦ Exposure to right methodology in construction specific skills like lining, leveling etc. ♦ Site safety concepts and procedures
	Workmen: plumbing, electrical works, carpentry, masonry, drilling	♦ Basic operating skills related to relevant category ♦ Improved/ better quality in finishing ♦ Site safety concepts and procedures ♦ Ability to understand & follow instructions/ manuals

4.25.8 Recommendations

Future Growth Opportunities in Sukma

In the context of the current profile and proposed investments in Sukma, the demand-supply gap for human resources at various skill levels has been analyzed. The observations have been augmented by primary interactions with industry & industry association representatives in the district and government officials at the state and district level. Based on our analysis and considering factors like high growth and employment potential, priority sector for the state government, investment trends, etc., the following sectors/industries have been identified with future growth opportunities for employment and subsequently, skill development in Sukma.

Table 415: Key Growth Sectors - Sukma

#	Priority Sectors	Growth opportunities in skills development and employment
1.	Agriculture	<ul style="list-style-type: none"> Agriculture currently provides employment to around 86% of the workers in the district. Cultivation of paddy along with production of different varieties of pulses is expected to employ a significant section of the workforce. It is anticipated to be the residual & largest incremental employer in the district accounting for around 47.9% of the total incremental demand for manpower.
2.	Building & construction	<ul style="list-style-type: none"> Construction is another major contributor in the district economy which is expected to grow at around 10.9% (2012-22). The total budgeted value for ongoing building and construction activities (building and roadwork) in Sukma for the year 2013-14 is allocated at Rs. 21 crores⁴⁶⁰. Building and construction is projected to be one of the chief employers in the district with approximately 16.2% of the total incremental demand for employment estimated to come from the sector.
3.	Food processing	<ul style="list-style-type: none"> Food processing sector is expected to contribute to around 4.4% of the incremental demand for manpower in the district. The micro and small enterprises in the district are the major contributors of growth in this sector. The growth of employment (2012-22) in this sector is anticipated to increase and is projected to be about 4.3% of the total incremental demand for workers.
4	Public Administration	<ul style="list-style-type: none"> The sector accounts for 18% of the people employed in the formal sectors in the district and is projected to grow at a CAGR of 3.2% It accounts for 4.3% of the incremental demand in the district.
Source: Deloitte Analysis		

Considering the economic and skill landscape of Sukma, the table below indicates the priority areas of focus for key stakeholders involved. These observations have been mainly derived from the growth opportunities identified above and through primary interactions with industry and industry association representatives in the district along with inputs from the students, training institutes and government.

Table 416: Key Recommendations for Stakeholders – Sukma

Stakeholder	Priority Areas
NSDC	<p>NSDC can focus the efforts of its training partners in the key sectors identified in the district, viz.</p> <ul style="list-style-type: none"> ♦ Agriculture ♦ Building and Construction ♦ Manufacturing – Food Processing

⁴⁶⁰ Chhattisgarh Public Works Department

Stakeholder	Priority Areas
Private training providers	<ul style="list-style-type: none"> Since a majority of the population in the state is dependent on Agriculture, the private training providers should focus on training or providing extension support services in agricultural products processing, forestry and animal husbandry (including dairy & poultry) for the workers dependent on the sector. The skill development institutes in the district should collaborate with the Directorate of Agriculture, Directorate of Horticulture, Directorate of Animal Husbandry and Directorate of Fisheries for providing training in Agriculture and Allied sectors. For providing training in the Building and Construction sector, possible collaboration with the Chhattisgarh State Industrial Development Corporation and Confederation of Real Estate Developer's Associations of India may be explored. Moreover, the skill development institutes should also concentrate on the design and delivery of bridge courses with a focus on communication, language, basic IT and soft skills to make students job ready as highlighted in youth survey as well. The training institutes should also introduce/ substantiate multi-disciplinary courses in sectors such as food processing, building & construction etc.
Government	<ul style="list-style-type: none"> The Government should promote and endorse vocational education as a practical alternative to formal education with emphasis on providing job ready courses. The Directorate of Horticulture & Farm Forestry should arrange training and extension activities on areas like organic farming, soil conservation techniques; pest management etc. in the district owing to the dependence of the majority of the population on Agriculture. These training activities should be undertaken in tie-ups with the VTP's as well as NSDC partners operational in Sukma. The Government should encourage more vocational training institutes on public private partnership mode in the district. Youth interactions indicated need for better working conditions and compensation for employees in the district.
Industry	<ul style="list-style-type: none"> More industry interactions should be initiated in the Building & Construction, Agriculture and Food Processing sectors in the district. Industry players should also participate in improving upon the current course curriculum as observed in the youth survey where 100% of the respondents quoted that the current education/training received by them is not in alignment with the potential job requirements. The major private players as well as public sector enterprises in the state should undertake and encourage vocational training as part of their CSR activities either by partnering with the Skill Development Institutes for training or providing funds/resources for the same.

4.26 Surajpur

4.26.1 District Profile

Surajpur district, located in the northern part of Chhattisgarh came into existence on 15th August, 2011, when the erstwhile Surguja district was divided into Surguja, Surajpur and Balrampur.

The district is a part of Surajpur division in the north and falls under the northern hills agro-climatic zone.

It is surrounded by Koriya district in the west, Balrampur in the east, Korba and Surguja in the south and Madhya Pradesh in the north.

The district is divided into 6 tehsils viz. Pratappur, Surajpur, Odagi, Bhaiyathan, Ramanujnagar and Premnagar. The district includes 550 villages, 392 Gram Panchayats, 6 janpad Panchayats, 4 Nagar Panchayat, 1 Municipal Council, 9 Revenue Circle, 201 Patwari Circle, 108 Patwar Halka and 10 Revenue Circle. The town of Surajpur is the district headquarters⁴⁶¹.

Forests account for around 45.3% of the total geographical area of the district. The forest cover of Surajpur is slightly higher than the state average & comprises of very dense forest (4.5%), moderately dense forest (67.7%) and open forest (27.7%)⁴⁶². The Tamor Pingla Wild Life Sanctuary is in Surajpur.

Table 417: Surajpur District Profile

#	Indicator	Surajpur	Chhattisgarh	% Share
1.	Area, in sq.km.	2787 ⁴⁶³	135,190	2.1
2.	No. of sub-districts	6	149	4.0
3.	No. of inhabited villages	549	20126	2.7
4.	No. of households (in lakhs)	1.79 ⁴⁶⁴	56.50	3.1
5.	Average Land holding size (Ha)	1.00*	1.17	
6.	Forest area cover	45.3%*	41.2%	

Source: Census 2011; Directorate of Economics and Statistics- Govt. of Chhattisgarh; State of Forest Report 2011-Forest survey of India; Deloitte Analysis
 * Data is for undivided Surajpur (including Surguja and Balrampur)

Map 27: Surajpur District



⁴⁶¹ Census 2011 and district website (<http://surajpur.gov.in/>)

⁴⁶² State of Forest Report 2011-Forest survey of India (Data is for undivided Surguja which includes Surajpur and Balrampur)

⁴⁶³ District website (<http://surajpur.gov.in/>)

⁴⁶⁴ Deloitte Analysis (Divided according to the population ratio of Surguja, Surajpur and Balrampur)

4.26.2 Demography

As per Census 2011, Surajpur has a total population of 7, 88,969 of which males and females comprised 50.5% (3, 98,638) and 49.5% (3, 90,331) of the district's total population respectively. The district shares approximately 3.1% of the state's population. Surajpur is pre-dominantly a tribal district with Scheduled Tribes being the major social class in the district. Scheduled Castes and Scheduled Tribes together constitute about three fifth of the total district population

The decadal population growth in Surajpur during 2001-2011 was 19.7%⁴⁶⁵, which is lesser than the population growth of 24.7%⁴⁶⁶ during the period 1991-2001. As of 2011, Surajpur ranks 17th amongst all the districts of Chhattisgarh in terms of population.

About 90.9% of the total population resides in rural areas. The sex ratio of the district at 979 females present per 1000 males is lower than the average sex ratio of the state. About 58.9% of the district's population is in the working age population class group. The per capita income in the district is significantly less than the state average. The district ranks 22 among all the districts in terms of per capita income.

Table 418: Demographic Indicators of Surajpur

Demography	Surajpur	Chhattisgarh
Population (2011)	7,88,969	2,55,40,196
Population 15-24 (2011)	1,44,210	49,89,339
Decadal Population Growth Rate (2001-11)	19.7% ⁴⁶⁷	22.6%
Population density per sq. km (2011)	150*	189
Percentage of Urban Population (2011)	9.1%	23.2%
Percentage of SC population (2011)	4.9%*	12.8%
Percentage of ST population (2011)	55.1%*	30.6%
Average household size	4.49*	4.54
Sex Ratio (2011)	979	991
Working age population (15-59) as a percentage of total population, %	58.9%	60.1%
Per Capita Income (2009)	Rs. 15,140 ⁴⁶⁸	Rs.28,263
Source: Census of India 2011; Directorate of Economics and Statistics- Govt. of Chhattisgarh; Deloitte Analysis		
* Data is for undivided Surajpur (including Surguja and Balrampur)		

Key Observations:

- ♦ The Scheduled Tribe population of the district (55.1%) is significantly higher than the state average (30.6%).
- ♦ The district has a lower per capita income (Rs. 15,140) than the state average of Rs.28,263.

⁴⁶⁵ Deloitte Analysis

⁴⁶⁶ Data is for undivided Surajpur (including Balrampur and Surguja)

⁴⁶⁷ Deloitte Analysis

⁴⁶⁸ Deloitte Analysis (At 2004-05 constant prices)

4.26.3 Economic Profile

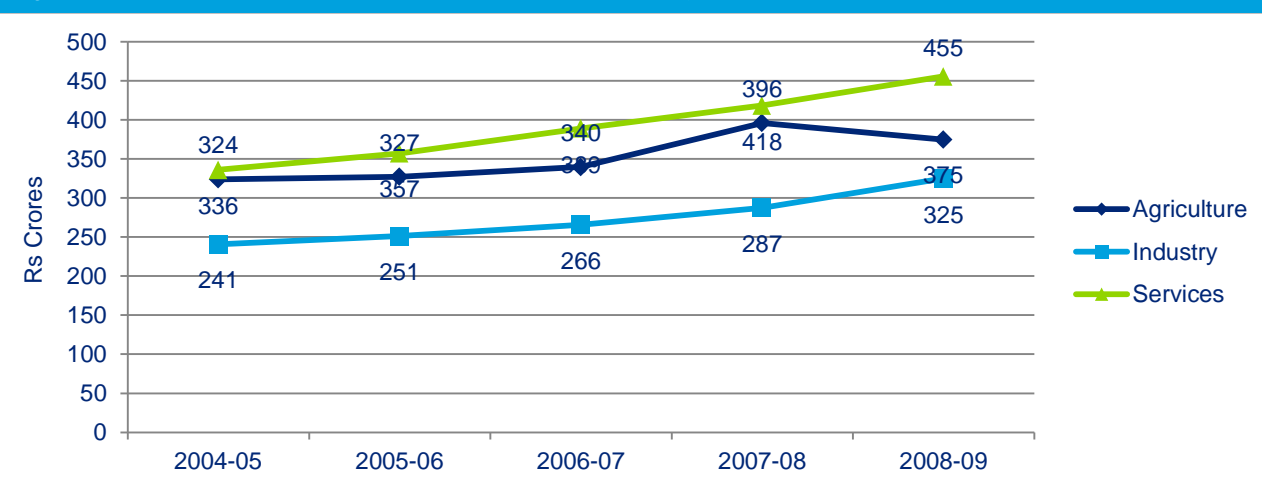
Surajpur was formed in 2011 after it was separated from Surguja. The economy of Surajpur has registered a CAGR of about 6.4% (estimated at constant prices, 2004-05) between 2004-05 and 2008-09 and grown from Rs. 900.7 cr to Rs 1155.1 cr⁴⁶⁹. The district recorded a lower growth as compared to the state growth of 9.6% over the same period.

As per the analysis, in 2008-09, Surajpur district contributed about 1.7% in the state economic activity and was ranked 19th in Chhattisgarh in terms of economic activity.

The economy of Surajpur district is pre-dominantly Services sector based, with its share in GDDP being 39.4% in 2008-09. This is followed by Agriculture sector with 32.4% share in the GDDP and the Industry sector at a share of 28.1%. The Industry and Services sectors have grown consistently over the period 2005-09. The Services sector has shown the highest growth rate in the district over the period 2005-2009 with a CAGR of 7.9% followed by Industry and Agriculture sectors which registered a CAGR of 7.8% and 3.7% respectively.

The sector-wise GDDP growth and distribution in the district from 2005-09 is provided below:

Figure 443: Sectoral Share of GDDP, 2004-05 to 2008-09, Surajpur



Source: Directorate of Economics and Statistics- Govt. of Chhattisgarh (2004-05 base price); Deloitte Analysis

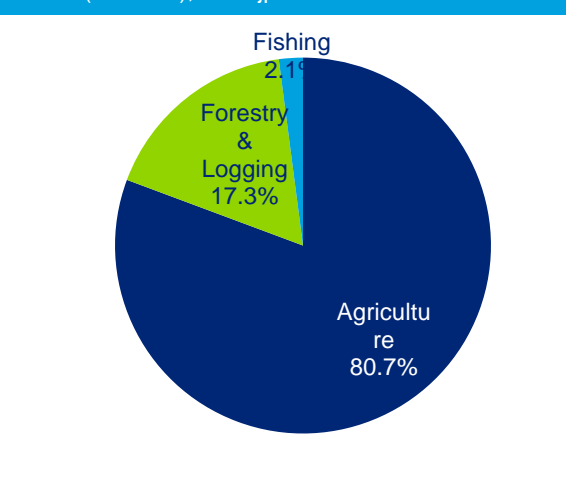
Agriculture Sector

⁴⁶⁹ Directorate of Economics and Statistics-Chhattisgarh; Deloitte Analysis

The contribution of Agriculture sector (agriculture, forestry & logging and fishing) to the GDDP was 32.4% in 2008-09. The sector witnessed a slow progression and grew at a CAGR of 3.7% between 2004-05 & 2008-09. Agriculture was the chief contributor in the total output of Agriculture sector in the district contributing around 80.7% in the year 2008-09 followed by forestry & logging activities (17.3%) and fishing (2.1%).

The percentage contribution of cultivated land in the district is highest in the central region as it has level land, fertile soil and some irrigation facilities. Most of the concentration of double cropped area is found in Ramanujnagar and Pratappur blocks. The region receives heavy rainfall, which helps in the growth of wheat and paddy. Surajpur tehsil is a rice belt in the district. The main varieties of rice grown are Vishnu Bhog, Jeerafool and Basmati. Wheat is mainly grown for business purposes.

Figure 444: Sub-sectoral break-up of Agriculture sector (2008-09), Surajpur



Source: Directorate of Economics and Statistics- Govt. of Chhattisgarh; Deloitte Analysis

Table 419: Key Crops in Surajpur

S#	Category	Key Crops
1	Food Grain	Paddy, Wheat
2	Oil Seed	Jatangi, Mustard, Monkeynut, Sunflower
3	Pulses	Arhar, Urad, Moong, Masoor, Chana

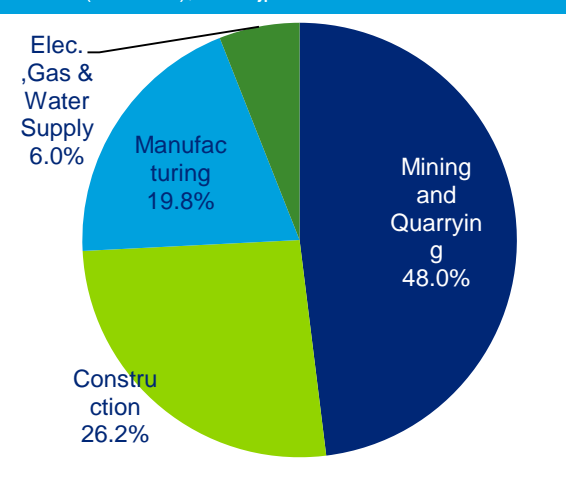
Source: surajpur.gov.in/

Surajpur falls under the Surguja forest circle and the important non-nationalized species available are Palash, Mahulpatta, Kusum (Oil seed), Shahad, Aonla, Baheda, Dhawai, Satawar, Malkangni, Marorfalli and Nagarmotha. Tribal people collect tendu patta, char, amla, hawai, tendu, and sal leaves. Sal, Dhawai, Amla, Char, Mahua are directly sold to various government and non-government agencies as well as in the open market. These have great economic value. Other sources of income include Lac, Gond and Honey. Besides, sericulture is also practiced in the district.

Industry Sector

The Industry sector (mining & quarrying, manufacturing, construction, electricity, gas and water supply) contributed 28.1% to the GDDP in 2008-09. The sector grew at an impressive CAGR of around 7.8% between 2004-05 & 2008-09.

Figure 445: Sub-sectoral break-up of Industry sector (2008-09), Surajpur

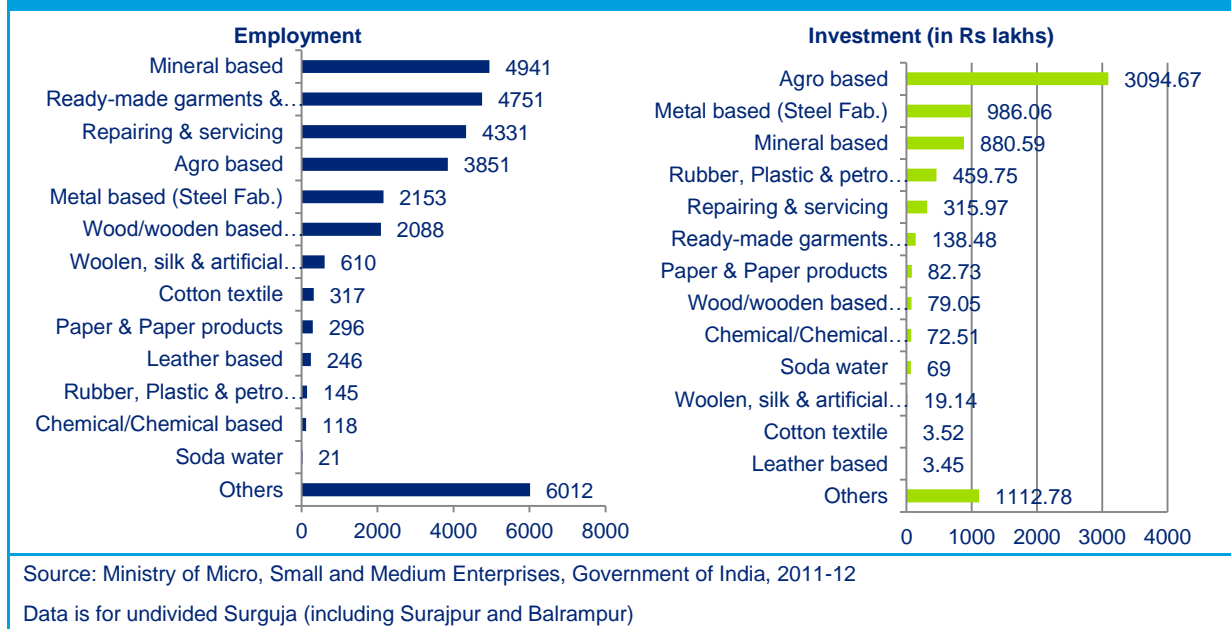


Source: Directorate of Economics and Statistics- Govt. of Chhattisgarh; Deloitte Analysis

Mining is the major contributor within the Industry sector accounting for a sectoral share of approximately 48% followed by construction sector (26.2%), manufacturing (19.8%) and electricity, gas and water supply (6.0%). A total budgeted value for ongoing building and construction activities (building and roadwork) in Surajpur for the year 2013-14 pegged at Rs. 78 crores shows the current focus of the district on the sector⁴⁷⁰.

The key micro and small industries in the sector in terms of number of units include agro based units, ready-made garments & embroidery units, mineral based units and repairing and servicing entities.

Figure 446: Employment and investment (in Rs lakhs) in micro and small enterprises, Surajpur



The district has rich mineral deposits. The coal fields of Surajpur belong to Gondwana coal fields. The coal of this area is of good quality gas and stream coals. Coal is available in Tara area (Hasdeo Arand Coalfields) and Bistrampur of Surajpur tehsil. The mineral revenue receipt for 2012-13 in Surajpur has been shown in the table below:

Table 420: Mineral Revenue Receipt (Rs. Lakhs) in 2012-13, Surajpur

Major Minerals	Minor Minerals	Others	Total
15032.57	199.87	5.45	15237.6

Source: Directorate of Geology & Mining, Chhattisgarh

⁴⁷⁰ Chhattisgarh Public Works Department

Services Sector

The Services sector contributed about 39.4% of the district economic profile in the year 2008-09.

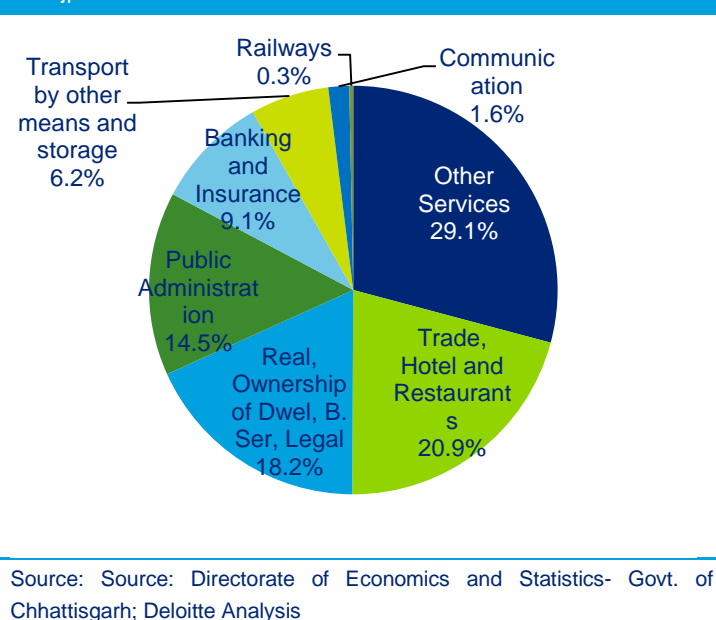
The sector grew at a CAGR of around 7.9% between the period 2004-05 & 2008-09. The key contributor to the sector is Other Services (which includes services such as Education & Skill Development, Healthcare, Media & Entertainment along with the Informal sector services such as drivers, domestic help etc.) contributing approximately 37% in the district Services sector followed by trade, hotels & restaurants (20.9%) and Real Estate (18%).

Kundargarh, Sarasore, Shiv Mandir (Shivpur Block), Mahamaya Mandir, Surajpur Hanuman Temple are some of

the chief tourist attractions in the district. The district is well connected to the rest of the state through road and rail networks. The National Highway, NH43, which connects Nataravasa in Andhra Pradesh to Raipur in Chhattisgarh passes through the district.

With a CAGR of about 19.8% and 16.7% over the period 2005-2009, Banking & Insurance and Communication were amongst the fastest growing sectors in the district respectively, though their absolute sizes were small.

Figure 447: Sub-sectoral break-up of Services sector (2008-09), Surajpur



Key Observations:

- The economy of Surajpur district is pre-dominantly Services sector based, with its share in GDDP being 39.4% in 2008-09. This is followed by Agriculture sector with 32.4% share in the GDDP and the Industry sector at a share of 28.1%.
- The Industry and Services sectors have grown consistently over the period 2005-09.
- The Services sector has shown the highest growth rate in the district over the period 2005-2009 with a CAGR of 7.9% followed by Industry and Agriculture sectors which registered a CAGR of 7.8% and 3.7% respectively.

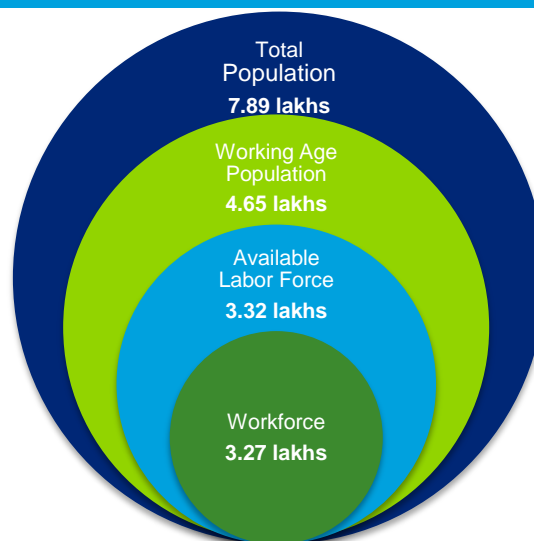
4.26.4 Employment Profile

With a total population of 7.89 lakhs in the year 2011, Surajpur accounts for nearly 3.1% of the state's population.

The adjacent figure depicts the estimated workforce in Surajpur in the context of total population of the district. Out of the total population of 7.89 lakhs, the working age population (between 15-59 age group) is estimated at 4.65 lakhs or nearly 58.9%.

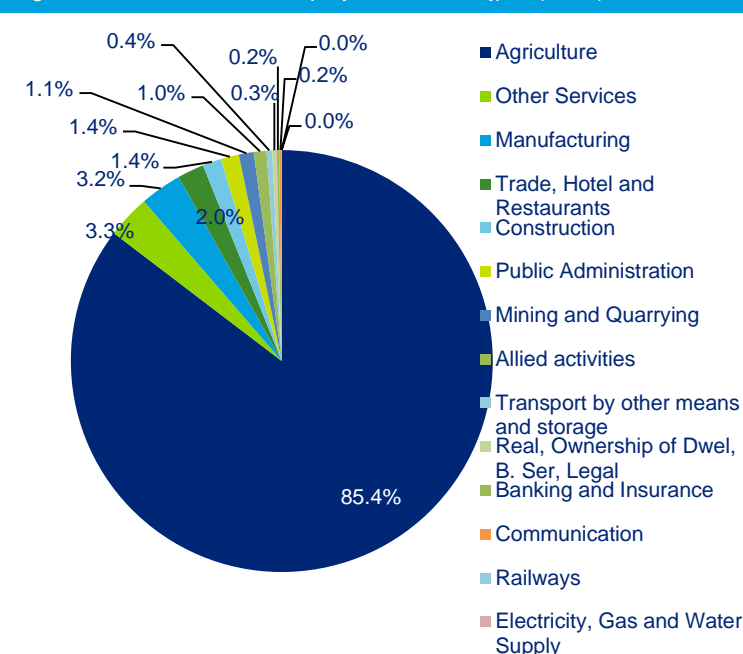
Based on the labor force participation rate and the worker participation rate estimates for the state, the available labor force is estimated to be 3.32 lakhs and the workforce is estimated at 3.27 lakhs or nearly 70% of the working age population. More than four-fifth of the workforce (86%) in the district is engaged in Agriculture sector in 2011, followed by the Services sector which employs 7.9% of the workforce. Industry sector employs around 5.8% of the total workforce.

Figure 448: Total Workforce in Surajpur (2011)



Source: Census 2011 and Deloitte Analysis

Figure 449: Sector wise employment in Surajpur (2011)



Source: Census 2011 and Deloitte Analysis

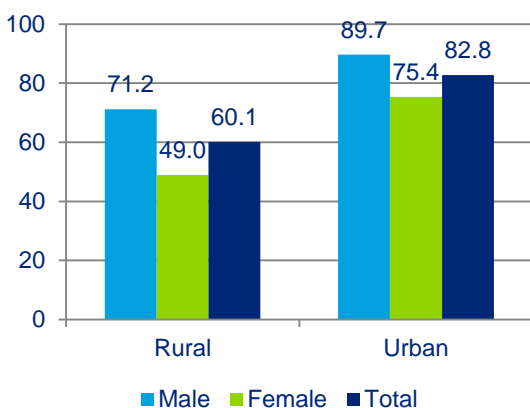
The sector-wise employment of Surajpur for the year 2011 has been shown in the adjoining figure. Agriculture contributed to 85.4% of the total employment in the district. Other services (which includes services such as Education & Skill Development, Healthcare, Media & Entertainment along with the Informal sector services such as drivers, domestic help etc.) were the second highest employer in the district (3.3%), while manufacturing employed 3.2% of the workforce. There exists disparity between the sector contribution to GDDP and the proportion of people employed for the sectors. Sectors like manufacturing and trade, hotels and restaurants show very little proportion of employment when compared to the

GDDP contribution as opposed to Agriculture which employs the bulk of people while contributing much less to the GDDP. The top five sectors in the district in terms of employment account for around 95% of the total employment of the available workforce in Surajpur in 2011.

4.26.5 Education Infrastructure

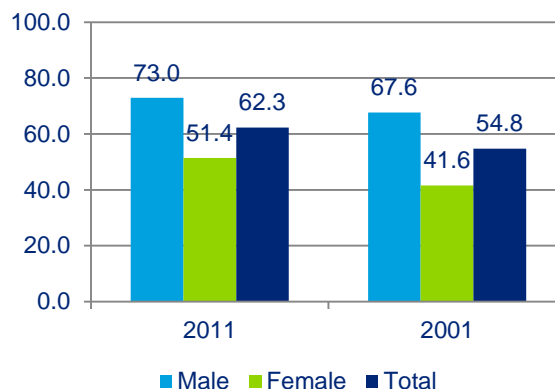
The literacy rate in Surajpur has improved from 54.8%⁴⁷¹ in 2001 to 62.3%⁴⁷² in 2011. The literacy rate of the district is much lesser than the state's literacy rate of 70.3% in 2011 as well as the all-India literacy rate of 73%. In 2011⁴⁷³, male and female literacy rates stood at 73% and 51.4% respectively, both figures registering an improvement compared to the 2001⁴⁷⁴ figures of 67.6% and 41.6% respectively. However, there still exists a significant disparity between the male-female and urban-rural literacy rates.

Figure 450: Literacy rate 2011 (by residence), Surajpur



Source: Census of India 2011

Figure 451: Literacy rate (by Gender), Surajpur



Source: Census of India, 2001 and 2011

* Data for 2001 is for undivided Surguja

School Education

Surajpur has 1469 primary schools, 672 upper primary schools, 76 secondary schools and 86 higher secondary schools. Net enrolment ratio (NER) is very high at the primary level. Also NER at the upper primary level (72.4%) is higher than the state NER of 67.8%.

Table 421: Status of school education infrastructure in Surajpur, 2013

#	Educational Statistics	Units in Surajpur	Units in Chhattisgarh	% Share of District in State
1	Primary School	1469	35588	4.1%
2	Upper Primary School	672	16442	4.1%
3	Secondary School	76	2632	2.9%
4	Higher Secondary School	86	3548	2.4%
5	NER (Primary) (2010-11)	100%*	98.0% ⁴⁷⁵	-
6	NER (Upper Primary) (2010-11)	72.4%*	67.8%	-

Source: DISE 2012-13
* Data is for undivided Surajpur (including Surguja and Balrampur)

⁴⁷¹ Data is for undivided Surajpur (including Balrampur and Surguja)

⁴⁷² Census 2011; Deloitte Analysis

⁴⁷³ Ibid.

⁴⁷⁴ Data is for undivided Surajpur (including Balrampur and Surguja)

⁴⁷⁵ Data is for 2008-09

Vocational Education

For vocational training, Surajpur has 6 ITIs in the district, all of which are Government Industrial Training Institutes. Surajpur does not have any woman ITI. The total capacity of the ITIs in the district is 676. Electrician and fitter courses have the maximum units affiliated among ITIs.

The number of courses available in ITIs and their capacity are listed in the table below.

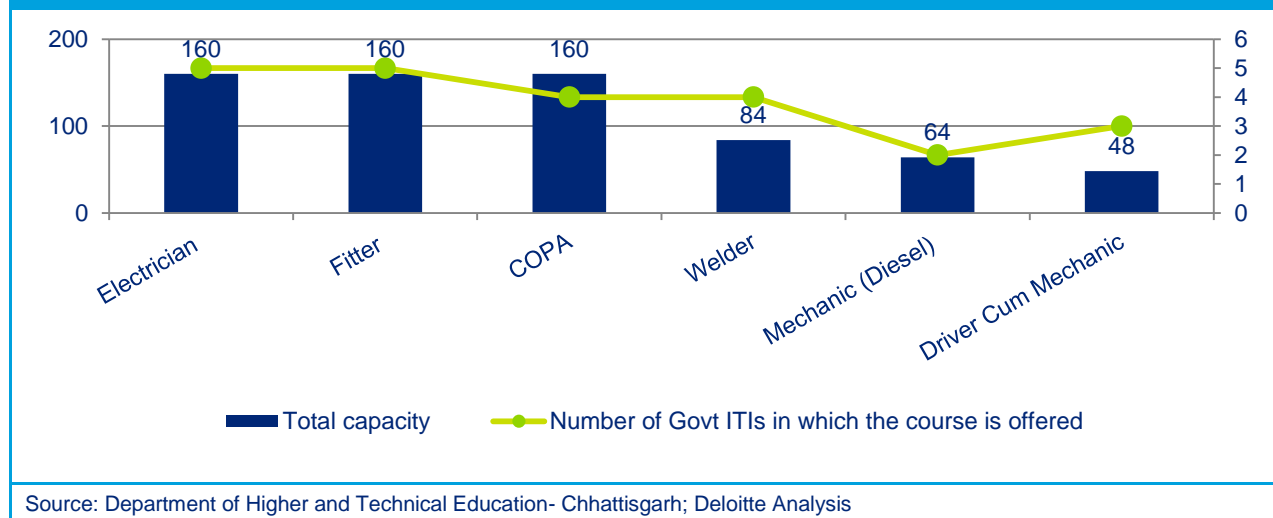
Table 422: ITIs in Surajpur and their capacity

Name of ITI	Number of courses offered	Total Units affiliated	Total Capacity
Government ITI Surajpur	2	3	48
Government Industrial Training Institute, Pratappur	3	5	84
Government Industrial Training Institute, Chendra	5	9	144
Government ITI, Premnagar	3	6	96
Government ITI, Bhatgaon	5	10	160
Government ITI, Ramanujnagar	5	9	144
Total	6*	42	676

Source: Department of Higher and Technical Education, Chhattisgarh; Deloitte Analysis
***Total number of different courses offered by ITI's in Surajpur**

The courses offered in the ITIs and their capacity in Surajpur is given in the figure below:

Figure 452: Courses offered in ITIs and their capacity in Surajpur



According to Chhattisgarh State Skill Development Mission Website, as of 12th March 2014, Surajpur has 33 Vocational Training Providers (VTPs) under which there are 1283 registered beneficiaries.

The following table highlights the courses offered in vocational education, which currently meet requirements of about 9 sectors only.

Table 423: Courses offered in vocational education, Surajpur

Sector	ITI trades and Units affiliated	Courses Offered by VTPs
Auto and auto components Electronics and IT hardware	Electrician(10), Fitter(10), Mechanic (4), Welder(7),	Electrical, Fabrication, Automotive Repairs
IT and ITES Tourism, hospitality and travel Organized retail Banking, financial services and insurance	Computer Operator and Programming Assistant(8), Driver cum Mechanic (3)	ICT
Textiles and clothing		Sericulture
Building, construction and real estate Construction material and building hardware		Construction
Source: CSSDA Website		

The following table highlights the NSDC partners present in Surajpur as of January 2014 and the courses offered by them.

Table 424: NSDC partners present in Surajpur

Name of Partner	Sectors in which course is offered	Courses offered
AISECT	IT and computer skills,	<ul style="list-style-type: none"> ♦ Post graduate diploma in computer applications ♦ Diploma in computer applications ♦ Diploma in Computer Programming and Applications
	ITES-BPO	<ul style="list-style-type: none"> ♦ Post graduate diploma in computer applications ♦ Diploma in computer applications ♦ Diploma in Computer Programming and Applications
Source: NSDC		

Higher Education

The status of higher education in Surajpur is not very promising. Out of a total 590 colleges in the state, only 6 colleges are in the district of Surajpur indicating the district's share in the higher education space of the state at just 1%. This is much lower compared to the share of population of Surajpur to the state (3.1%). All the colleges offer general degree courses and are affiliated to the Surguja University⁴⁷⁶.

Key Observations:

- ♦ There are 6 ITIs and 33 VTPs active in the district.
- ♦ Surajpur has 6 colleges all of which offer general degree courses.

⁴⁷⁶ University/College websites

4.26.6 Youth Aspirations

Youth population constitutes the most important demographic section for a district from a skills development perspective. In the process of capturing the aspirations of the youth population in Surajpur, focused group discussions were held with youth from educational institutions as well as residing in rural areas to understand their concerns, areas of interest and future dreams and goals. The FGD in Surajpur was conducted at the Gram Panchayat Bhavan, Parri, Surajpur. 47.4% of the respondents were in the age group 15-20, 42.1% of them were between 21-25 years. Remaining 10.5% of the respondents were 26 years and above. The educational qualification of about 15% of the participants was ITI or diploma, 52.5% were from high school while the remaining 32.5% of them were graduate or above.

The key observations about aspirations of the youth of the district are highlighted below.

Table 425: Youth Aspiration – Key Responses – Surajpur

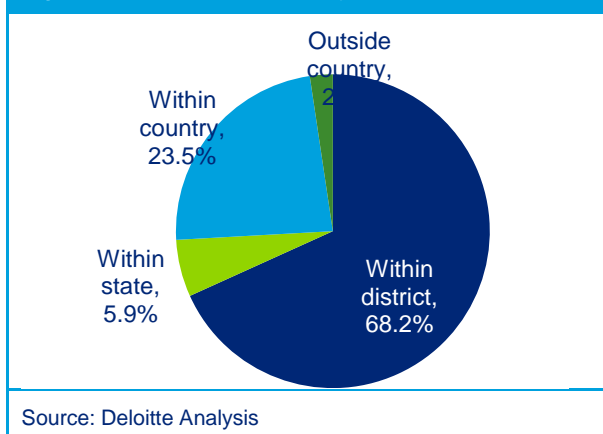
Parameters	Responses
Job Preference	<ul style="list-style-type: none"> Students want to be employed in Govt. sector as well as in private sector
Preferred Course	<ul style="list-style-type: none"> Training for job readiness appears to be most popular among the youth in the district. People want to get training in the computer software, TV repair, electrical work etc.
Migrating for job	<ul style="list-style-type: none"> Women want to work within district.
Salary Expectations	<ul style="list-style-type: none"> Average monthly salary expectation of youth ranges between Rs 8,000-9,000/-
Areas of concern/ aspirations- Infrastructure	<ul style="list-style-type: none"> Youth reported poor quality of infrastructure in the institutes in terms of building, toilets, library, etc.
Areas of concern/ aspirations-Course Curriculum	<ul style="list-style-type: none"> Youths expressed the need for resourceful and good teachers. There should be awareness generation camps for training programmes. Youth feel that institutes should have more tie-ups between industries and institution
Suggestions given by youth	<ul style="list-style-type: none"> The youth expect Govt. to take up initiatives to improve college infrastructure. Youth expressed that Govt. should take measures to provide proper education facilities to the poor people. There should be more courses, practical classes, resourceful, efficient and regular teachers available in the institutes. The Government should open new institutes with more trades. There should be more tie-ups between industries and institutions.

A sample survey was conducted with youth at gram panchayat level & those coming out from various educational institutions (Government & private) to understand & capture their aspirations. The findings are presented below:

Job preference by youth

The majority of the youth we surveyed (68.2%) **prefer to get a job within their home district** as is evident from the adjacent figure. Approximately 5.9% of them preferred for job within their state of residence. The survey highlights the fact that around **74.1% of the youth surveyed wanted to get a job within Chhattisgarh** thus demanding and necessitating the creation of suitable positions and absorption capacity for them in the employment market. The survey reveals that not many youth are interested to migrate out of state in search of jobs.

Figure 453: Job Preference by Youth



Parameter for Institute Selection

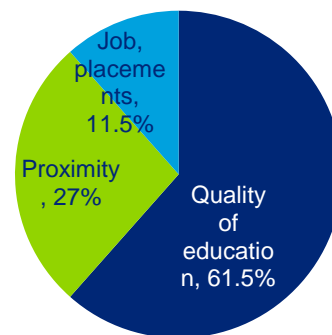
A majority of the students surveyed (61.5%) at the gram panchayat level quoted the **quality of education** as their prime parameter while selection of an institute for higher education. Almost 27% of them mentioned the proximity to the institute as the major reason, while the remaining 11.5% cited job placements as the main reason to take admission in any of the institute available.

Youth Perception Mapping

Youth perception mapping was undertaken to understand their level of satisfaction with either their current institute or their experience and feedback on the available educational infrastructure. The results are summarized below:

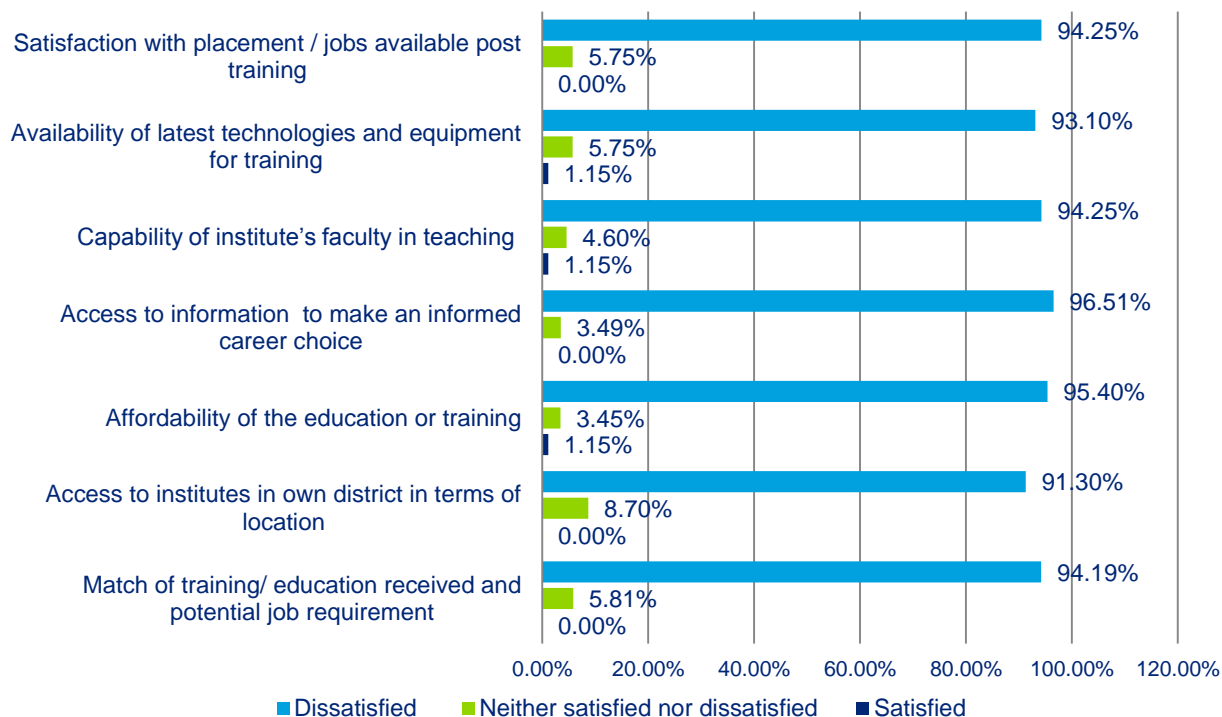
Low satisfaction with placement / jobs available post training: Around 94.3% of the students felt the job opportunities available to them post training were not satisfactory. They shared their expectation of being provided with a placement opportunity by the institute or facilitate a tie-up with nearby companies to give them an experience of hands on training.

Figure 454: Parameter for Choice of Institute



Source: Deloitte Analysis

Figure 455: Youth Perception Mapping, Surajpur



Source: Deloitte Analysis

Non-availability of latest technologies and equipment for training: 93.1% of the students surveyed expressed their dissatisfaction with the availability of latest technology & equipment for training in the institute while only 1.2% of them shared their satisfaction with the same. They felt the lack of equipment as a major constraint for their knowledge enhancement and appropriate level of skill development. They demanded that the institutes to be adequately equipped and upgraded with latest technology.

Dissatisfaction with capability of institute's faculty in teaching: Around 94.3% of the students (especially the students from Government ITI's) feel the quality of teaching by faculty is not satisfactory and needs significant improvement. They demanded the number of faculty to be increased as per the demand of the course.

Need for better access to information to make an informed career choice: Majority of the students (96.5%) were dissatisfied as far as access to information to make an informed career choice is concerned. This showcases the importance of having career counseling to the potential students either at the school level or at the respective vocational institutes.

Affordability is as high a concern as quality and value for money in education or training: Majority of the students (around 95.4%) felt that the fees charged by the education/ training institute were a barrier for them and considered it to be unaffordable for them. They raised their concern that the quality of the training programme offered should be commensurate with the fees charged.

Access to institutes is an issue: 91.3% of the students surveyed expressed their dissatisfaction with the accessibility of the educational institutes in terms of location. They felt the educational institutes to be inaccessible in terms of location and majority of them were rural youth.

Dissatisfaction with the alignment of training/education received with job requirements: Approximately 94.2% of the students surveyed feel that the training/education currently provided by the educational institutes in the district is not in alignment with the job requirements of the business. This highlights the very important fact that the students believe the education or training received is not beneficial for them during their job.

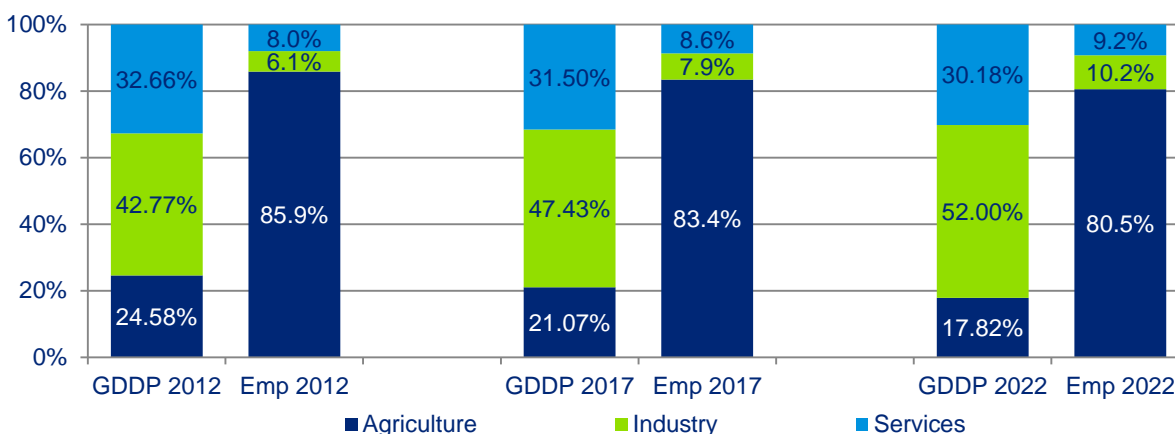
Key Observations:

- ♦ Majority of the students want to be employed in Govt. sector. However, most of them are employed in the private sector
- ♦ People want to get training in the computer software, TV repair, electrical work etc.
- ♦ Need for updating course content & creating linkages for placement was strongly expressed
- ♦ Improving institute-industry interface to ensure better apprenticeship training was emphasized
- ♦ Training for job readiness appears to be most popular among the youth.
- ♦ Need to address infrastructure gaps - particularly updating the toilet, libraries, buildings, tools and equipment was expressed
- ♦ Youth expressed the need for resourceful and better teachers in the institutes.
- ♦ Youth are not aware about the different Government initiatives on skill development.

4.26.7 Skill Gap Assessment

The working age population (15-59) constituting 58.9% of total district population in 2011, is expected to increase to 62.1% by 2022. Demand for jobs is expected to increase leading to the need for job creation. Similarly, to reap this demographic dividend, supply of labour must be adequately skilled.

Figure 456: Comparison of Sectoral share in GDDP & Employment, Surajpur



Source: Deloitte Analysis

The above figure also depicts the significant disparity in the structures of economy and employment in the district. Based on our analysis and primary interactions, the Agriculture sector is expected to be an important sector in terms of providing employment in the district and would account for the largest share of workforce over the decade. If the trends in employment continue, in 2021-22, the share of employment across the Agriculture sector is expected to decline to 80.5% as compared to 85.9% in 2012.

The Industry and Services sector employment share are estimated to increase 10.2% and 9.2% respectively, as indicated in the table above. This trend appears to be in line with the national trend as well where people are moving out of the Agriculture sector and moving into the Industry and Services sectors respectively.

Incremental Human Resource Demand

As per the methodology, the total incremental demand for manpower in Surajpur by 2022 is expected to be 0.67 lakhs. Following table provides the break-up of the incremental demand for manpower in Surajpur as per skill level required.

Table 426: Estimated Incremental Human Resource Demand (in '00s) by Skill Level in Surajpur

	2012-17	2017-22	Total
Skilled	39	45	84
Semi-Skilled	74	87	160
Minimally Skilled	208	221	430
Total	321	353	674

Source: Deloitte Analysis

Some of the key trends observed on the demand side include

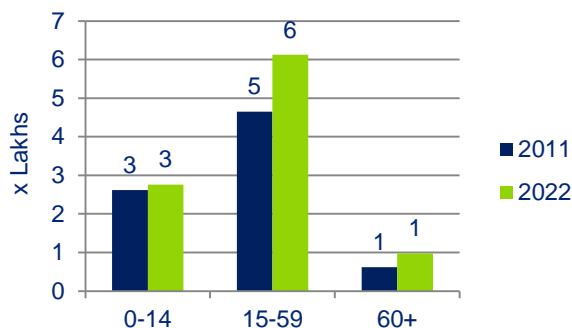
- ♦ *Agriculture will be the largest incremental demand generating sector (48.3%) with demand largely in the minimally skilled level.*
- ♦ *Within the Industries sector, the greatest incremental demand on employment is expected to come from the mining and quarrying (16.4%) sector followed by building and construction (7.3%) and food processing (2.6%).*
- ♦ *Within the Services Sector, public administration is expected to contribute about (3.6%) of the total incremental demand for employment.*
- ♦ *Analysis of formal and informal employment indicates that the incremental demand for manpower in formal sector would come mainly from Mining and quarrying, Building and Construction, Public administration, BFSI and Education/skill development.*
- ♦ *Majority of demand for incremental manpower in informal sector is projected to come from Agriculture, Construction, Food processing, textiles and garments and manufacturing (primarily metal/mineral based) sectors*

Table 427: Incremental Human Resource Demand ('00) by Skill Level in Surajpur- Key Sectors

#	Sector	2012-17				2017-22			
		Skilled	Semi-skilled	Minimally Skilled	Total	Skilled	Semi-skilled	Minimally Skilled	Total
1	Agriculture	5	17	146	167	5	16	138	159
2	Mining and Quarrying	4	13	25	42	7	21	41	69
3	Building & construction	3	9	10	22	4	11	12	27
4	Public Administration	7	3	2	12	8	3	2	13
5	Food processing	1	2	5	8	1	3	5	9
6	Manufacturing (metal/ mineral based)	2	5	2	8	2	5	2	9
7	Textiles & garments	2	4	2	8	2	5	2	9
8	Others	15	21	17	54	18	24	19	60
Overall Incremental Demand						674			
Source: Deloitte Analysis									

Incremental Human Resource Supply

Figure 457: Age wise distribution of population, Surajpur 2011 and 2022 (projected)



Source: Census 2011 and Deloitte Analysis

The population of Surajpur is expected to increase from 7.9 lakhs in 2011 to 9.9 lakhs in 2022. The figure provides the current and projected population across various age groups. As per the analysis, the number and proportion of children in 0-14 age group is projected to increase by about 0.14 lakh children, while the number of persons in the working age group is expected to increase by 1.47 lakh during the same period. This represents a potential demographic dividend for the district with a large increase in the employable population. On the other hand, it presents a huge challenge for the state to make available higher education and skill development

facilities as well as ensure productive employment opportunities for its population.

As per the methodology, the estimated total incremental manpower supply in Surajpur over the decade (2012-2022) will be about 1.07 lakhs. Incremental manpower supply can be further classified into skilled, semi-skilled and minimally- skilled as per the education qualifications and estimated output of educational and vocational training institutes in the district.

Table 428: Estimated Incremental Human Resource Supply (in '00s) by Skill Level in Surajpur

	2012-17	2017-22	Total
Skilled	41	47	88
Semi-Skilled	101	110	211
Minimally Skilled	385	383	768
Total	527	539	1066

Source: Deloitte Analysis

Some of the key trends observed on the supply side include

- Proportion of incremental supply of minimally skilled manpower is 8%, compared to 20% of skilled and 72% of semi-skilled manpower (2012-22)
- Surajpur has 6 out of 590 colleges in the state indicating the district's share in the higher education space of the state at just 1.0%. This is significantly lesser than the share of population of Surajpur to the state (3.1%). In line with the presence of few higher education institutes, the proportion of skilled workers in the total workforce of the district is anticipated to be the least (8%).
- Surajpur has 16 out of 180 ITIs in the state having 11.2% of total capacity of all ITIs in the state, and also has growing presence of VTPs & Private vocational training providers which is contributing to the output of semi-skilled manpower in district
- Impact of Migration is expected to be inward and accounts for around 2.2% of the total supply of workforce. According to primary interactions, inward migration is expected both in minimally skilled and semi-skilled jobs.

Incremental Demand Supply Gap

During the period 2012-22, the incremental demand supply gap of the district (across all sectors mentioned above) is expected to be a surplus of 0.39 lakh people (refer table below). There is assessed to be an excess supply in all the three skill segments.

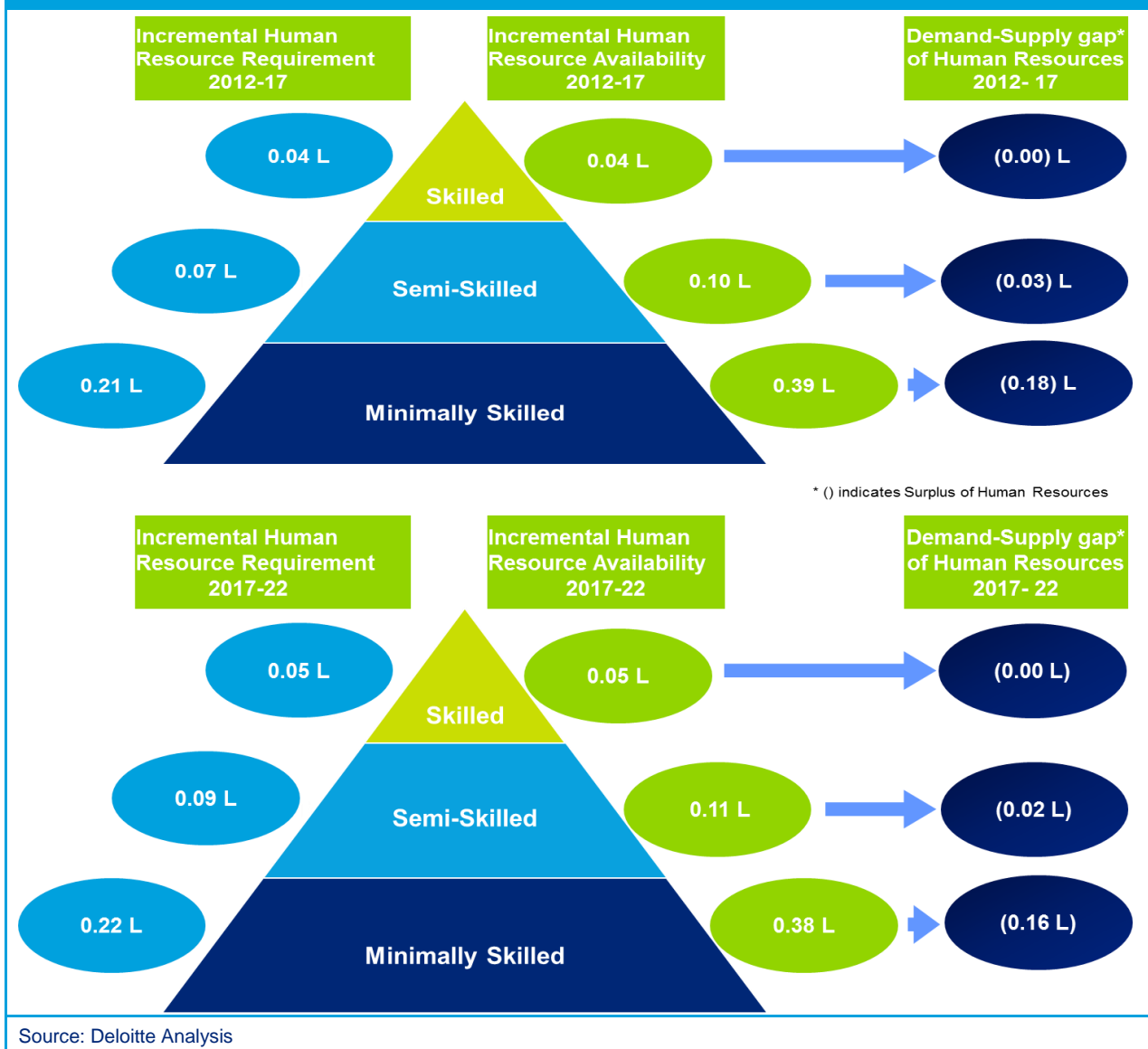
This means the rate of creation of employment in the district has to be augmented with suitable government initiatives in order to absorb the supply of workforce projected to enter the job market. Moreover, it also indicates a potential for skilling the semi-skilled and minimally skilled workforce and shift them to the more productive job roles assumed at the higher skill level respectively.

Table 429: Projected Demand Supply gap ('00s) by skill levels in Surajpur

#	District Skill Gap		2012-17				2017-22			
			Skilled	Semi-skilled	Min. Skilled	Total	Skilled	Semi-skilled	Min. Skilled	Total
1	Incremental Requirement (Demand)	HR	39	74	208	321	45	87	221	353
2	Incremental Availability(Supply)	HR	41	101	385	527	47	110	383	539
3	Demand-Supply Gap		(2)	(27)	(177)	(207)	(1)	(23)	(162)	(186)
Overall Demand-Supply Gap								(393)		
Source: Deloitte Analysis										

During the period 2012-22, the incremental manpower demand supply gap of the district (across all sectors mentioned above) is expected to be a surplus of about 0.39 lakhs with the excess supply across all skill segments as shown in the following figure.

Figure 458: Incremental Demand-Supply Gap (Rs. Lakhs), Surajpur



Some of the key trends observed on the demand-supply gap include

- ♦ The composition of the human resource demand supply gap over the two different time periods i.e. 2012-17 and 2017-22 is anticipated to remain the same.
- ♦ The excess supply in the skilled segment is expected to continue over the decade and increase in future. This is owing to the low employment opportunities for skilled labour in the district. Due to the excess supply, skilled workers may need to seek job opportunities outside the district.
- ♦ As indicated in the adjacent figures, the trend of excess supply is likely to continue in the semi-skilled segment across both the time periods. However, approximately 72% of the total semi-skilled workforce is estimated to be class 12 pass outs having undergone no job/skill specific training.

- ♦ As indicated in the adjacent figures, the excess supply of minimally skilled human resources is estimated to reduce significantly owing to the greater focus of the state on improving school education, and providing an impetus in the skill development space.
- ♦ Primary interactions have raised **employability & deficit in specific jobs/ skills** as concerns despite high overall supply in skilled and semi-skilled levels. These have been given in the qualitative skill gaps section below.

Qualitative Skill Gaps

The qualitative skill gaps that were highlighted during our primary interactions with industry at Surajpur are provided in the table below.

Table 430: Qualitative Skill Gaps

Sector	Level	Skill Gap
Agriculture	Tractor operator and mechanics/ Electricians/ Mechanics for repair & maintenance of agricultural tools & implements	<ul style="list-style-type: none"> ♦ Sufficient training to address tool & equipment failures like motor pump failure, gear damage, tyre puncture etc.
	Project Managers/Engineers	<ul style="list-style-type: none"> ♦ Knowledge of design and tools such as AutoCAD etc. ♦ Knowledge of green/eco-building design ♦ Project Management and People Management Skills ♦ Knowledge of appropriate safety practices
Building & construction	Supervisors: plumbing, electrical, carpentry, masonry, drilling	<ul style="list-style-type: none"> ♦ Skills in civil- operations of ready mix m/c, earth movers, etc. ♦ Basic repair and maintenance ♦ Exposure to right methodology in construction specific skills like lining, leveling etc. ♦ Site safety concepts and procedures
	Workmen: plumbing, electrical works, carpentry, masonry, drilling	<ul style="list-style-type: none"> ♦ Basic operating skills related to relevant category ♦ Improved/ better quality in finishing ♦ Site safety concepts and procedures ♦ Ability to understand & follow instructions/ manuals
	Procurement Managers	<ul style="list-style-type: none"> ♦ Ability to forecast demand and undertake procurement accordingly ♦ Ability to locate and enter into relationships with farmers
Food Processing	Plant Associates and operators	<ul style="list-style-type: none"> ♦ Limited basic engineering knowledge esp. on practical aspects, process knowledge e.g. distillation
	Material Handlers	<ul style="list-style-type: none"> ♦ Limited awareness on quality, health and hygiene awareness ♦ Limited basic computer skills including barcode reading
	Sales and marketing	<ul style="list-style-type: none"> ♦ Limited Communication skills, ability and willingness to understand the manufacturing process
	Machine Operators	<ul style="list-style-type: none"> ♦ Insufficient knowledge of machine operation and use ♦ Ability to understand & follow instructions/ manuals ♦ Limited ability to carry out basic repairs and troubleshooting
	Machine Operators / Fitters	<ul style="list-style-type: none"> ♦ Correct knowledge of machine operation & use
Manufacturing (mineral/ metal based)	Electricians & Mechanics	<ul style="list-style-type: none"> ♦ Ability to carry out basic repairs and troubleshooting
	Quality Inspectors (Skilled)	<ul style="list-style-type: none"> ♦ Ability to understand & follow instructions/ manuals

4.26.8 Recommendations

Future Growth Opportunities in Surajpur

In the context of the current economic profile and proposed investments of the district, the demand for human resources at various skill levels has been analyzed. The observations have been augmented by primary interactions with industry & industry association representatives in the district and government officials at the state and district level. Based on our analysis and considering factors like high growth and employment potential, priority sector for the state government, investment trends, etc., the following sectors/industries have been identified with future growth opportunities for employment and subsequently, skill development in Surajpur.

Table 431: Key Growth Sectors - Surajpur

#	Priority Sectors	Growth opportunities in skills development and employment
1.	Agriculture	<ul style="list-style-type: none"> Agriculture currently provides employment to around 84.5% of the workers in the district. It is anticipated to be the residual & largest incremental employer in the district accounting for around 48.3% of the total incremental demand for manpower. Cultivation of paddy and wheat is expected to employ a significant section of the workforce. Vegetable cultivation could be promoted on a large scale in the district as rainfall is plentiful. Sugarcane cultivation can also be taken up in the district. Also, to improve the productivity in the Agriculture sector, greater training initiatives can be undertaken by the training schemes organized under NABARD and training schemes under Rashtriya Krishi Vikas Yojna.
2.	Mining and Quarrying	<ul style="list-style-type: none"> The total mineral revenue receipt in the district for 2012-13 is Rs 15237.6 lakhs. It is anticipated to be the second largest incremental employer in the district accounting for around 16.4% of the total incremental demand for manpower.
3.	Building & construction	<ul style="list-style-type: none"> Construction is another major contributor in the district economy which is expected to grow at around 10.3% (2012-22). The total budgeted value for ongoing building and construction activities (building and roadwork) for the year 2013-14 is allocated at Rs. 78 crores⁴⁷⁷. Building and construction is projected to be one of the chief employers in the district with approximately 7.3% of the total incremental demand for employment estimated to come from the sector.
Source: Deloitte Analysis		

Considering the economic and skill landscape of Surajpur, the table below indicates the priority areas of focus for key stakeholders involved. These observations have been mainly derived from the growth opportunities identified above and through primary interactions with industry and industry association representatives in the district along with inputs from the students, training institutes and government.

Table 432: Key Recommendations for Stakeholders – Surajpur

Stakeholder	Priority Areas
NSDC	<p>NSDC can focus the efforts of its training partners in the key sectors identified in the district, viz.</p> <ul style="list-style-type: none"> Agriculture Mining and Quarrying Building and Construction
Private training providers	<ul style="list-style-type: none"> There is a need for courses in building and construction owing to the demand for more trained workers in the sector. Additionally, courses in Agriculture, and mining and quarrying can also be explored.

⁴⁷⁷ Chhattisgarh Public Works Department

Stakeholder	Priority Areas
	<ul style="list-style-type: none"> The skill development institutes in the district should collaborate with the Directorate of Agriculture, Directorate of Horticulture, Directorate of Animal Husbandry and Directorate of Fisheries for providing training in Agriculture and Allied sectors. Also, currently very few VTPs are offering courses related to training in repair & maintenance of Agri-Equipment. With increasing mechanization of agriculture, more VTPs should be encouraged to provide courses like Repair, Maintenance and Field Operation of Soil Farming Equipment (AGR106), Repair and Maintenance of Harvesting and Threshing Equipment (AGR109), Repair and Overhauling of Tractor (AGR214) There is a need for design and delivery of bridge courses with a focus on communication, language, basic IT and soft skills to make students job ready. There is a need to strengthen/improve the current technology and facilities/equipment in the institute as indicated by around 93% of the youth surveyed in the district.
Government	<ul style="list-style-type: none"> The Government should incentivize vocational education and subsequent certification for the workforce in the district in terms of wage revision. The Directorate of Horticulture & Farm Forestry should arrange training and extension activities at Agricultural Extension Centres on areas like organic farming, soil conservation techniques; pest management etc. in the district owing to the dependence of the majority of the population on Agriculture. They should also aim at training people in Soil & Water Conservation and Hydrologic & Sediment Monitoring. These training activities should be undertaken in tie-ups with the VTP's as well as NSDC partners operational in Surajpur. CSSDA may also develop private players as Skill & Entrepreneurship Development Centres for Agriculture by registering them as VTPs where sufficient training may be provided to the people to address tool & equipment failures like motor pump failure, gear damage, tyre puncture etc. More training providers may be encouraged to increase the courses offered in Sheep and Goat Rearing (AHM102) and Dairy Farming (AHM103). The Government should encourage more vocational training institutes on public private partnership mode in the district. Soft Skills may be provided at high school level in government schools. The government should facilitate programs to encourage self-employment in the district. For this purpose, the MSME-DI, Raipur can arrange multiple product-cum-process oriented programs in the district like Entrepreneurship Skill Development programmes (ESDPs), Entrepreneurship Development Programmes (EDPs), Industrial Motivation Camps (IMCs), BSDPs etc. with an objective of developing entrepreneurial qualities and preparing new entrepreneurs to setup their own small enterprises.
Industry	<ul style="list-style-type: none"> More industry interactions should be initiated in the, Building & Construction, Mining and Quarrying and Agriculture sectors in the district. Industry players should provide inputs in curriculum for ITIs and skill development institutes to improve the practical component of learning. Approximately 94% of the students surveyed in Surajpur expressed their dissatisfaction with the alignment of the training/education currently provided by the educational institutes in the district with the potential job requirements of the employers. Industry players should participate in relevant SSCs to provide relevant inputs especially in the high growth sectors identified in the district.

4.27 Surguja

4.27.1 District Profile

Surguja district, located in the northern part of Chhattisgarh came into existence on 15 August, 1947. The district is a part of Surguja division in the north and falls under the northern hills agro-climatic zone.

It is surrounded by Balrampur district in the north, Jashpur in the east, Korba and Raigarh in the south and Surajpur in the west. The district is divided into three parts, the mountains, the Plateaus and Hills and the plain land.

The district is divided into 7 tehsils viz. Ambikapur, Lakhanpur, Udaipur, Lundra, Sitapur, Batouli and Mainpat. Ambikapur is the administrative headquarter of the district. The district has 579 revenue villages, 356 Gram Panchayats, 108 Patwar Halka and 10 Revenue Circle. Surguja has a rich cultural heritage. The Rihand River flows through the district.

Map 28: Surguja District



Forests account for around 45.3% of the total geographical area of the district. The forest cover of Surguja is slightly higher than the state average & comprises of very dense forest (4.5%), moderately dense forest (67.8%) and open forest (27.7%)⁴⁷⁸. In 2011, the district was divided into the present day districts of Surguja, Surajpur and Balrampur.

Table 433: Surguja District Profile

#	Indicator	Surguja	Chhattisgarh	% Share
1.	Area, in sq.km.	6481 ⁴⁷⁹	135,190	4.8
2.	No. of sub-districts	7	149	4.7
3.	No. of inhabited villages	579	20126	2.9
4.	No. of households (lakhs)	1.88 ⁴⁸⁰	56.51	3.8
5.	Average Land holding size (Ha)	1.00*	1.17	
6.	Forest area cover	45.34%*	41.18%	

Source: Census 2011; Directorate of Economics and Statistics-Govt. of Chhattisgarh; State of Forest Report 2011-Forest survey of India; Deloitte Analysis

* Data is for undivided Surguja (including Surajpur and Balrampur)

⁴⁷⁸ State of Forest Report 2011-Forest survey of India (Data is for undivided Surguja which includes Surajpur and Balrampur)

⁴⁷⁹ Deloitte Analysis

⁴⁸⁰ Deloitte Analysis (Divided according to the population ratio of Surguja, Surajpur and Balrampur)

4.27.2 Demography

As per Census 2011, Surguja has a total population of 8, 42,085 of which males and females comprised 50.6% (4, 26,044) and 49.4% (4, 16,041) of the total district's population respectively. The district shares approximately 3.3% of the state's population. Surguja is pre-dominantly a tribal district with Scheduled Tribes being the major social class in the district. Scheduled Castes and Scheduled Tribes together constitute about three fifth of the total district population

The decadal population growth in Surguja during 2001-2011 was 19.7%⁴⁸¹, which is lesser than the population growth of 24.7%⁴⁸² during the period 1991-2001. As of 2011, Surguja ranks 11th amongst all the districts of Chhattisgarh in terms of population.

About 83.5% of the total population resides in rural areas. However, the urban population growth rate of 78.6% over the period 2001-2011 is higher than the state urban population growth rate of 41.83%. The population density of the district has improved over the decade with around 150 persons per sq. km. in 2011 as compared to 125 persons per sq. km. in 2001⁴⁸³. However it is lower than the state average (189). The sex ratio of the district at 977 females present per 1000 males is also lower than the average sex ratio of the state. About 58.9% of the district's population is in the working age population class group. The per capita income in the district is significantly less than the state average.

Table 434: Demographic Indicators of Surguja

Demography	Surguja	Chhattisgarh
Population (2011)	8,42,085	2,55,40,196
Population 15-24 (2011)	1,53,918	49,89,339
Decadal Population Growth Rate (2001-11)	19.7% ⁴⁸⁴	22.6%
Population density per sq. km (2011)	150*	189
Percentage of Urban Population (2011)	16.5%	23.2%
Percentage of SC population (2011)	4.9%*	12.8%
Percentage of ST population (2011)	55.1%*	30.6%
Average household size	4.49*	4.54
Sex Ratio (2011)	977	991
Working age population (15-59) as a percentage of total population, %	58.9%	60.1%
Per Capita Income (2009)	Rs. 17,216 ⁴⁸⁵	Rs.28,263
Source: Census of India 2011; Directorate of Economics and Statistics- Govt. of Chhattisgarh; Deloitte Analysis		
* Data is for undivided Surguja (including Surajpur and Balrampur)		

⁴⁸¹ Deloitte Analysis

⁴⁸² Data is for undivided Surguja (including Surajpur and Balrampur)

⁴⁸³ ibid.

⁴⁸⁴ Deloitte Analysis

⁴⁸⁵ Deloitte Analysis (At 2004-05 constant prices)

Key Observations:

- ♦ The Scheduled Tribe population of the district (55.1%) is significantly higher than the state average (30.6%).
- ♦ Surguja registered an urban population growth rate of 78.6% over the period 2001-2011 which is higher than the decadal percentage growth rate of urban population in Chhattisgarh as well as that of India over the same period.

4.27.3 Economic Profile

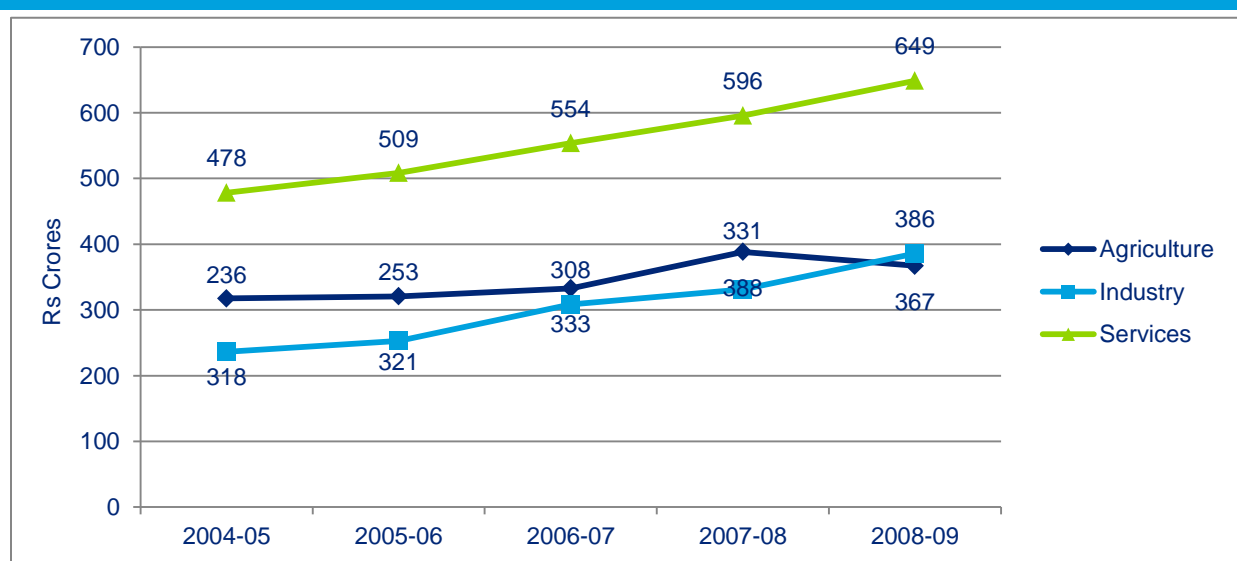
The economy of Surguja has registered a CAGR of about 8% (estimated at constant prices, 2004-05) between 2004-05 and 2008-09 and grown from Rs. 1032.31 Cr to Rs 1401.92 Cr⁴⁸⁶. The district recorded a lower economic growth as compared to the state growth of 9.6% over the same period.

In 2008-09, Surguja district contributed about 2.0% in the state economic activity and ranked 16th in the state in terms of economic activity.

The economy of Surguja district is pre-dominantly Services sector based, with its share in GDDP being 46.3% in 2008-09. This is followed by Industry sector with 27.5% share in the GDDP and the Agriculture sector at a share of 26.2%. The Industry and Services sectors have grown consistently over the period 2005-09. The Industry sector has shown the highest growth rate in the district over the period 2005-2009 with a CAGR of 13% followed by Services and Agriculture sectors which registered a CAGR of 7.9% and 3.7% respectively.

The sector-wise GDDP growth and distribution in the district from 2005-09 is provided below:

Figure 459: Sectoral Share of GDDP, 2004-05 to 2008-09, Surguja



Source: Directorate of Economics and Statistics, Govt. of Chhattisgarh; Deloitte Analysis

⁴⁸⁶ Directorate of Economics and Statistics-Chhattisgarh, Deloitte Analysis

Agriculture sector

The contribution of Agriculture sector (agriculture, forestry & logging and fishing) to the GDDP was 26.2% in 2008-09. The sector witnessed a slow progression and grew at a CAGR of 3.7% between 2004-05 & 2008-09. The overall sectoral contribution declined in the district by about 4.6% over the same time frame. Agriculture was the chief contributor in the total output of Agriculture sector in the district contributing around 80.7% in the year 2008-09 followed by forestry & logging activities (17.3%) and fishing (2.1%).

The percentage contribution of cultivated land is highest in the central region of the district owing to level land, fertile soil and some irrigation facilities. The uplands and high lands are mostly covered with rocky wastelands, infertile soil, woods and scrubs, sloppy and forested area. About 41.67% of the total area has been developed for agriculture while about 5.7% remains under fallow land. Most of the concentration of double cropped area is found in Ambikapur & central north-east of Lundra region. Surguja receives average rainfall of about 2000 mm. This helps in the growth of wheat and paddy, which are the main food grains of the district. Ambikapur, Sitapur and Lakhanpur are the rice belts of the district. The main varieties of rice grown are Vishnu Bhog, Jeerafool and Basmati. Surguja is a NFSM district for pulses. Oilseeds and vegetables are also grown in abundance in the district. The people of Mainpat tehsil produces large amount of potato, mainly during the rainy season. Sugarcane is mainly cultivated in Batoli, Lundra and Ambikapur blocks.

The main crops grown in the district are as follows.

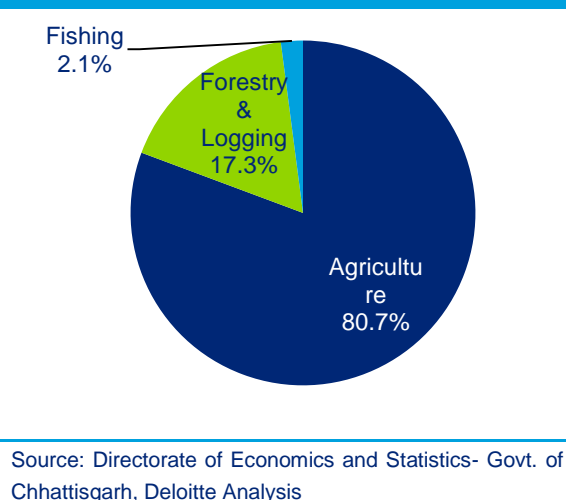
Table 435: Key Crops in Surguja

S#	Category	Key Crops
1	Food Grain	Paddy, Wheat
2	Oil Seed	Jatangi, Mustard, Monkeynut, Sunflower
3	Pulses	Arhar, Urad, Moong, Masoor, Chana

Source: Surguja.nic.in

Surguja falls under the Surguja forest circle and the important non-nationalized species available in South Surguja are Palash, Imli, Mahulpatta, Mahua, Chironjee, Shahad, Aonla, Baheda, Dhawai, Bel, Bhelwa and Nagarmotha. Tribal people also collect tendu patta, char, amla, hawai, tendu, and sal leaves. Owing to the great economic value, Sal, Dhawai, Amla, Char, Mahua are directly sold to various government and non-government agencies as well as in the open market. Other sources of income include Lac, Gond and Honey. Besides, sericulture is also practiced in the district.

Figure 460: Sub-sectoral break-up of Agriculture sector (2008-09), Surguja



Industry sector

The Industry sector (manufacturing, mining & quarrying, construction, electricity, gas and water supply) contributed 27.5% to the GDDP in 2008-09. The sector grew at an impressive CAGR of around 13% between 2004-05 & 2008-09. The overall contribution of the sector in the district economic profile increased from 22.9% in 2004-05 to 27.5% in 2008-09.

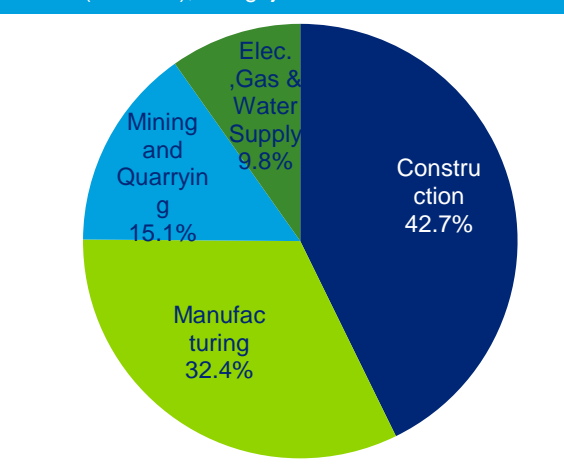
Construction sector is the major contributor within the Industry sector accounting for a sectoral share of 42.7% followed by manufacturing (32.4%), mining & quarrying (15.1%) and electricity, gas & water supply (9.8%). The total budgeted value for ongoing building & construction activities (building & roadwork) in Surguja for the year 2013-14 is allocated at Rs. 99 crores⁴⁸⁷.

Manufacturing contributed around 32.4% to the Industry sector in 2008-09. The district has an industrial area at Suis Banaras Road, Ambikapur developed over an area of 23.45 ha where currently 24 units are in production.

Surguja does not have presence of many large scale industries. Ambikapur has some ancillary units of SECL, Bilaspur. However, there are many agro-based industries in the district. Surguja also has a flourishing handloom & handicraft industry. The artisans of the region are famous for their work on clay, bamboo, godna, terracotta, wood carving and carpet weaving. There are 41 existing handicraft clusters in the district which is the 4th highest in the state⁴⁸⁸. It is the production cluster for painted clay relief, Dhokra (Lost Wax Metal Casting) and Bronze ware under the Meta cluster Surguja & Raigarh⁴⁸⁹. Pahad Chidwa, Silma, Puhphutara and Luchki/Kanthiprakashpur are the important sub clusters in the Surguja district for handicrafts⁴⁹⁰.

The investment in micro and small enterprises in the district along with employment is captured in the figure below.

Figure 461: Sub-sectoral break-up of Industry sector (2008-09), Surguja



Source: Directorate of Economics and Statistics- Govt. of Chhattisgarh, Deloitte Analysis

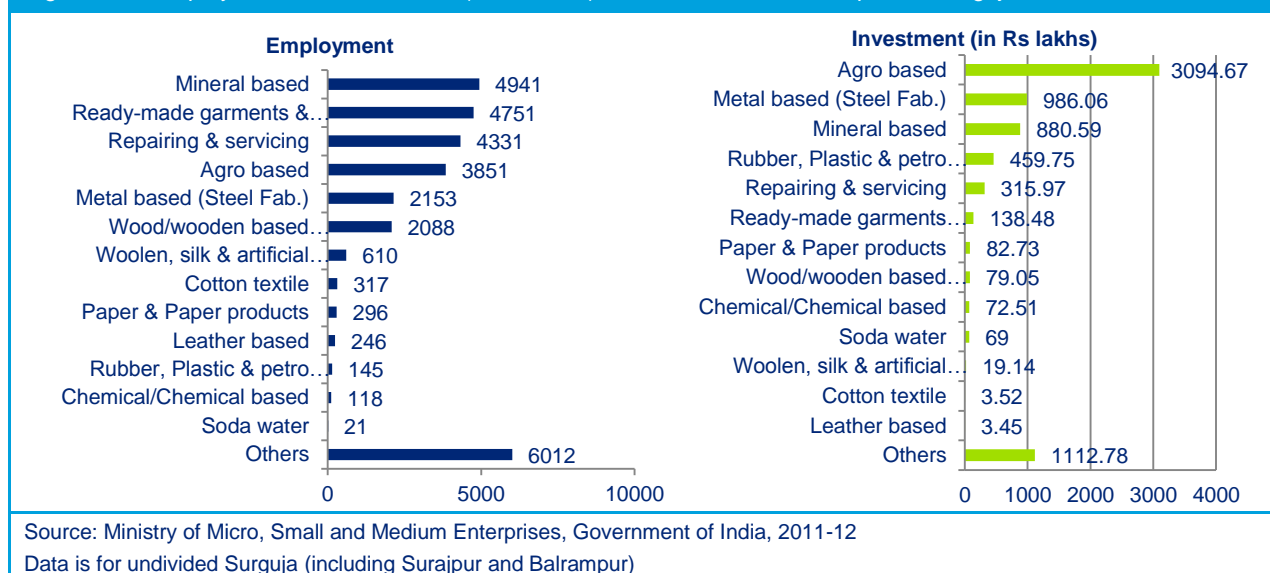
⁴⁸⁷ Chhattisgarh Public Works Department

⁴⁸⁸ Chhattisgarh Handicrafts Sector Profile, Chhattisgarh Handicrafts Sector Meet, 2012

⁴⁸⁹ Handmade in India-Crafts of India, Ranjan & Ranjan

⁴⁹⁰ Handmade in India-Crafts of India, Ranjan & Ranjan

Figure 462: Employment and Investment (in Rs lakhs) in micro and small enterprises, Surguja



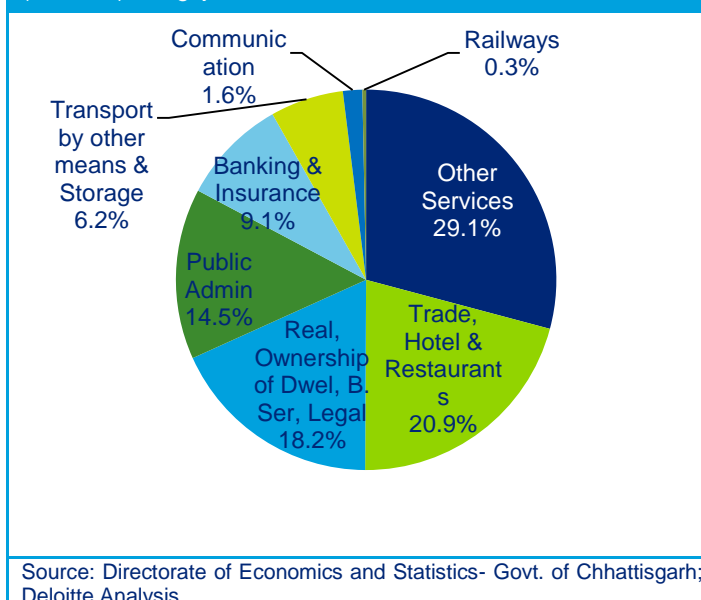
The key micro and small industries in the sector in terms of employment include mineral based units, ready-made garments & embroidery units, repairing and servicing entities, agro based industries and metal based (steel fabrication) units. As evident from the figure, the key industries in the MSME sector in terms of investment are agro based industries, metal based (steel fabrication) units, mineral based units, rubber, plastic & petro based units and repairing and servicing entities.

The district has rich mineral deposits. The coal fields of Surguja belong to Gondwana coal fields. The coal of this area is of good quality gas and stream coals. Coal is available in Parsa area (Hasdeo Arand Coalfields) and Panch Bahini area of Udaipur tehsil. Good quality Bauxite with thickness varying from 4-5 meters is also found in the tertiary rocks of the district. It is available in Nagardand and Khandraja area of Mainpat tehsil. The total mineral revenue receipt from mining of minerals in the district in 2012-13 was Rs. 5681.12 lakhs (Major Mineral: Rs. 4986.88 Lakhs, Minor minerals: Rs. 676.91 lakhs and others: Rs. 17.33 lakhs)⁴⁹¹.

Services sector

The Services sector contributed to about 46.3% of the district economic profile in the year 2008-09. The sector grew at a CAGR of around 7.9%

Figure 463: Percentage contribution of the Services sector (2008-09), Surguja



⁴⁹¹ Directorate of Geology & Mining, Chhattisgarh

between the period 2004-05 & 2008-09. The key contributor to the sector is other services contributing approximately 29.1% in the district Services sector followed by trade, hotels & restaurants (20.9%) and Real Estate (18.2%).

Deogarh, a village on the bank of Rihand in Ambikapur tehsil, Kailash caves and Buddha temple (Mainpat) are some of the chief tourist attractions in the district.

With a CAGR of about 19.8% and 16.7% over the period 2005-2009, Banking & Insurance and Communication were amongst the fastest growing sectors in the district respectively, though their absolute sizes were small.

Key Observations:

- ✦ The economy of Surguja district is pre-dominantly Services sector based, with its share in GDDP being 46.3% in 2008-09.
- ✦ This is followed by Industry sector with 27.5% share in the GDDP and the Agriculture sector at a share of 26.2%. The Industry and Services sectors have grown consistently over the period 2005-09.
- ✦ The Industry sector has shown the highest growth rate in the district over the period 2005-2009 with a CAGR of 13% followed by Services and Agriculture sectors which registered a CAGR of 7.9% and 3.7% respectively.

4.27.4 Employment Profile

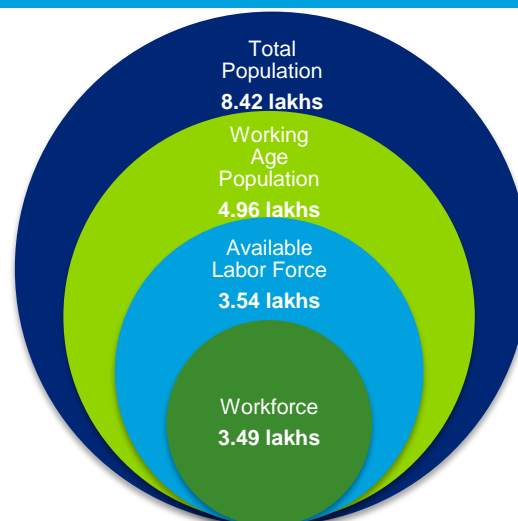
With a total population of 8.42 lakhs in the year 2011, Surguja accounts for nearly 3.3% of the state's population.

The adjacent figure depicts the estimated workforce in Surguja in the context of total population of the district. Out of the total population of 8.42 lakhs, the working age population (between 15-59 age group) is estimated at 4.96 lakhs or nearly 58.9%.

Based on the labor force participation rate and the worker participation rate estimates for the state, the available labor force is estimated to be 3.54 lakhs and the workforce is estimated at 3.49 lakhs or nearly 70% of the working age population.

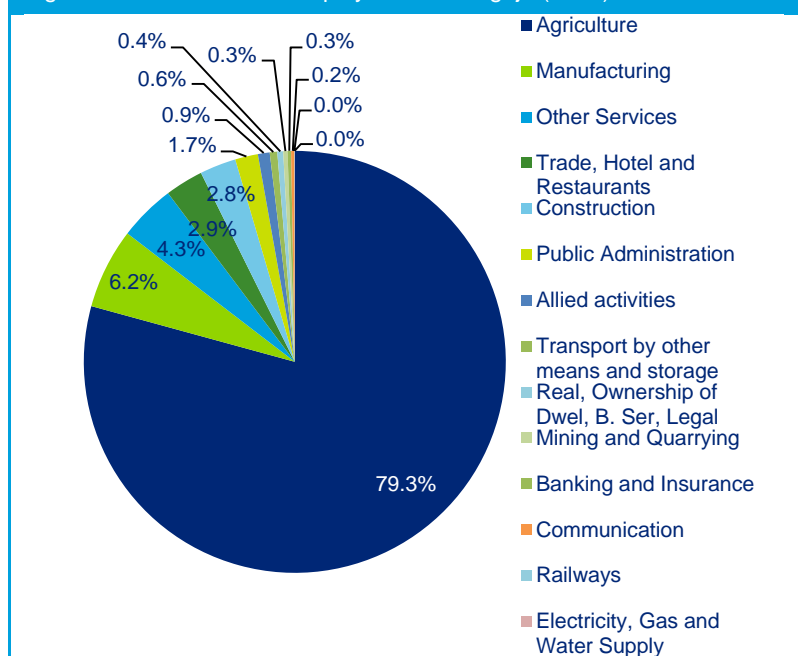
Agriculture sector is the highest employer in the district in 2011 employing around 80.2% of the total available work force; however, the sector contributes the least in the district's economic profile during the same period with around 19.6% share in the Gross District Domestic Product.

Figure 464: Total Workforce in Surguja (2011)



Source: Census 2011 and Deloitte Analysis

Figure 465: Sector wise employment in Surguja (2011)



Source: Census 2011 and Deloitte Analysis

Services sector is the second highest employer in the district employing around 10.6% of the workforce available in 2011 and contributed around 36.8% in the district economic profile.

The Industry sector is the chief contributor in the district economy in 2011, with a share of around 43.5% of the Gross District Domestic Product. The sector employs around 9.3% of the district's workforce.

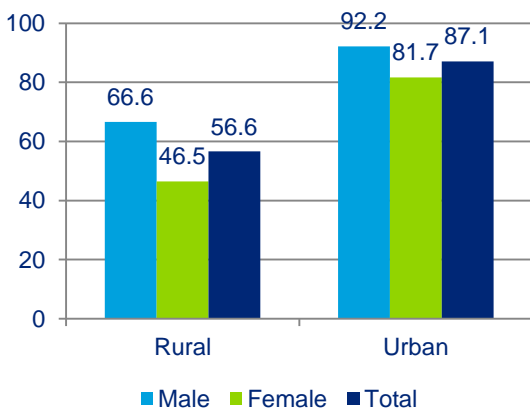
The adjoining figure summarizes the sector-wise employment share in Surguja for the year 2011. Agriculture employs more than three-fourth of the total workforce available in the district followed by manufacturing (6.2%), other services (4.3%), trade, hotels and restaurants (2.9%), and construction sector (2.8%).

The top five sectors in the district in terms of employment account for around 95% of the total employment of the available workforce in Surguja in 2011.

4.27.5 Education Infrastructure

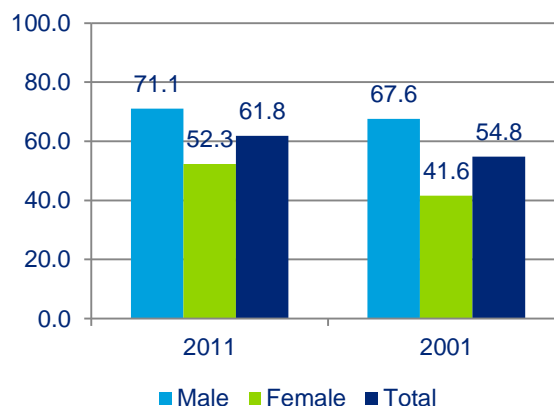
The literacy rate in Surguja has improved from 54.8%⁴⁹² in 2001 to 61.8%⁴⁹³ in 2011. The literacy rate of the district is much lesser than the state's literacy rate of 70.3% in 2011 as well as the all-India literacy rate of 73%. In 2011⁴⁹⁴, male and female literacy rates stood at 71.1% and 52.3% respectively, both figures registering an improvement compared to the 2001⁴⁹⁵ figures of 67.6% and 41.6% respectively. However, there still exists a significant disparity between the male-female and urban-rural literacy rates.

Figure 466: Literacy rate 2011 (by residence), Surguja



Source: Census of India 2011

Figure 467: Literacy rate (by Gender), Surguja



Source: Census of India, 2001 and 2011

School Education

Surguja has 1526 primary schools, 698 upper primary schools, 95 secondary schools and 106 higher secondary schools. Net enrolment ratio (NER) at the upper primary level (72.4%) in 2010-11 is higher than the state NER of 67.8%.

Table 436: Status of school education infrastructure in Surguja, 2013

#	Educational Statistics	Units in Surguja	Units in Chhattisgarh	% Share of District in State
1	Primary School	1526	35588	4.3%
2	Upper Primary School	698	16442	4.2%
3	Secondary School	95	2632	3.6%
4	Higher Secondary School	106	3548	3.0%
5	NER (Primary) (2010-11)	100%*	98.0% ⁴⁹⁶	-
6	NER (Upper Primary) (2010-11)	72.4%*	67.8%	-

Source: DISE 2012-13

* Data is for undivided Surguja (including Surajpur and Balrampur)

⁴⁹² Data is for undivided Surguja (including Surajpur and Balrampur)

⁴⁹³ Census 2011, Deloitte Analysis

⁴⁹⁴ Ibid.

⁴⁹⁵ Data is for undivided Surguja (including Surajpur and Balrampur)

⁴⁹⁶ Data is for 2008-09

Vocational Education

For vocational training, Surguja has a total of 4 ITI's in the district out of which 2 are Government Industrial Training Institutes and the other 2 are Private Industrial Training Institutes. Surguja has one dedicated woman ITI at Ambikapur. The total capacity of the ITI's in the district is 936. While the total capacity in the Govt. ITI's is 680, the total capacity in the private ITI's is 256. Electrician course has the maximum units affiliated among all ITI's in the district. The number of courses available in ITIs and their capacity are listed in the table below.

Table 437: ITIs in Surguja and their capacity

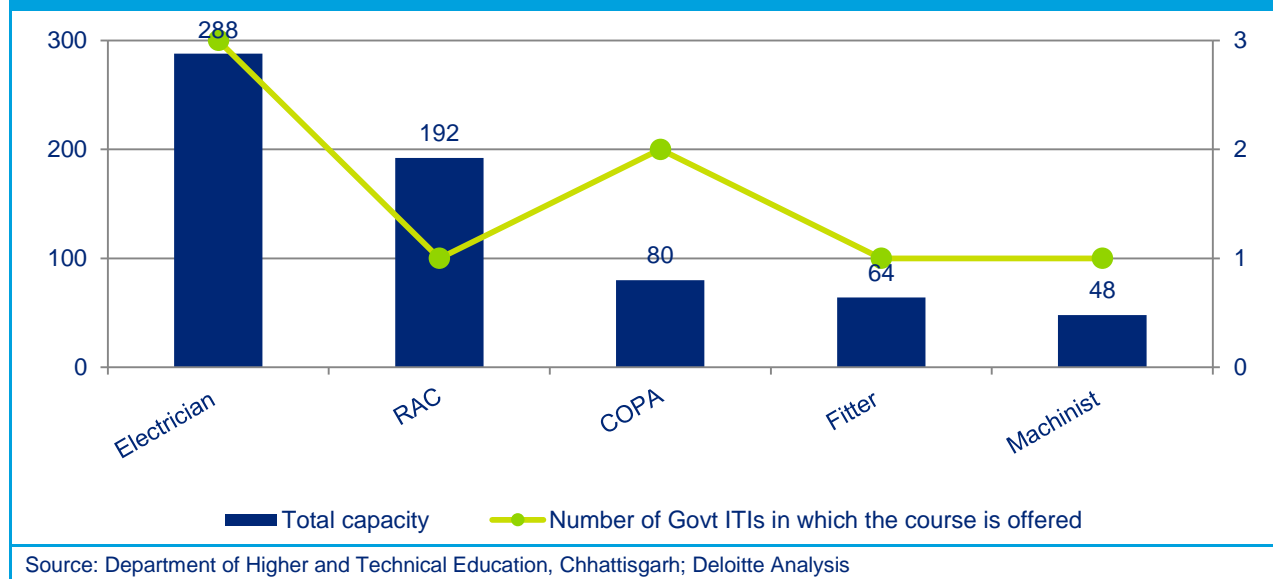
Name of ITI	Number of courses offered	Total Units affiliated	Total Capacity
Government Industrial Training Institute, Ambikapur	15	39	592
Government Industrial Training Institute for women, Ambikapur	4	5	88
New Maharana ITC	1	8	128
Ambika ITC	1	8	128
Total	16*	60	936

Source: Department of Higher and Technical Education, Chhattisgarh; Deloitte Analysis

*Total number of different courses offered by ITI's in Surguja

The major courses offered in the ITIs and their capacity in Surguja is given in the figure below:

Figure 468: Major courses offered in ITIs and their capacity in Surguja



According to Chhattisgarh State Skill Development Mission Website, as of 12th March, 2014, Surguja has **81 Vocational Training Providers (VTPs)** under which 7117 beneficiaries have been registered.

The following table highlights the courses offered in vocational education, which currently meet requirements of about 13 sectors.

Table 438: Courses offered in vocational education, Surguja

Sector	ITI trades and Units affiliated	Courses Offered by VTPs
Auto and auto components Electronics and IT hardware Chemicals and pharmaceuticals	Electrician(18), Fitter(4), Mechanic and machinist (7), Turner(4), Welder(2)	Electrical, Fabrication, Automobile, Automotive Repairs, Production and manufacturing
IT and ITES Tourism, hospitality and travel Organized retail Banking, financial services and insurance	Computer Operator and Programming Assistant(4), Stenography(2)	ICT, Soft skill, Printing, Business & Commerce
Textiles and clothing Food processing	Cutting and Tailoring(2), Knitting with hand machine (1)	Textile sector, Garment making, Sericulture, Food preservation
Infrastructure (Transport, Energy, Water & Sanitation, Communication, Social & Commercial) Building, construction and real estate Construction material and building hardware	Sheet Metal Worker (1)	Renewable Energy, Rain water Harvesting, Construction
Unorganized sector (particular reference to agriculture, security, plumbing, domestic worker, foundry, etc.)	Mechanic (Refrigeration, air conditioning, radio, television etc.) (13), Wireman(2)	Refrigeration & Air conditioning, Agriculture, Apiculture, Beauty Culture & Hair Dressing, Toy Making, Jute Products, Wood Work, Handmade Paper & Paper Product, Bamboo fabrication, Glassware, Home Décor-Art Jewellery
Source: CSSDA Website		

The following table highlights the NSDC partners present in Surguja as of January 2014 and the courses offered by them.

Table 439: NSDC partners present in Surguja

Name of Partner	Sectors in which course is offered	Courses offered
AISECT	IT/Software	<ul style="list-style-type: none"> • Diploma in Computer Applications (DCA) • Post Graduate Diploma in Computer Applications (PGDCA) • Certificate in Data Entry Operator (CDEO) • Certificate in Computerized Financial Accounting (CCFA)
	ITES-BPO	<ul style="list-style-type: none"> • Diploma in Computer Applications (DCA) • Post Graduate Diploma in Computer Applications (PGDCA) • Diploma in Computer Programming and Applications (DCPA) • Certificate in Computer Applications (CCA)
	Electronics & IT Hardware	<ul style="list-style-type: none"> • Advance Diploma in Computer Hardware and Networking (ADCHN)
Source: NSDC		

Higher Education

Out of the total 590 colleges in the state, 22 colleges are present in the district of Surguja. Besides these 22 colleges, the district also has a Government polytechnic institute located in Ambikapur. The district's share in the higher education space of the state is 3.7%. This is comparable to the share of population of Surguja to the state (3.3%). Out of the 22 colleges present in the district, 10 offer only general degree courses. The district also has Surguja University, which is a State University, located in Ambikapur.

The break-up of the number and capacity of higher education institutes in Surguja is given below.

Table 440: Number and Capacity of Higher Education infrastructure in Surguja

#	Colleges	Number	Capacity*
1	Arts, Science and Commerce	10	-
2	Teacher Education	4	-
3	Nursing	5	260
4	Agriculture	2	108
5	Management	1	-
	TOTAL	22	-
*Source: University/College websites			

Key Observations:

- ♦ The share of Surguja in the higher education space of the state is 3.7% which is comparable to its share of population in the state (3.3%).
- ♦ Although there are 22 colleges present in Surguja, 11 of them offer only general degree courses.

4.27.6 Youth Aspirations

In the process of capturing the aspirations of the youth population in Surguja, Focused Group Discussions (FGD's) were held with youth of different age groups from educational institutions as well as residing in rural areas to understand their chief concerns, areas of interest and future dreams and goals. The youth survey in Surguja was conducted at the Government Polytechnic, Ambikapur while the FGD was conducted at the Gram Panchayat Bhavan, Ganghari. In terms of the profile of the candidates, around 78% of the respondents were in the age group 15-20 while 18% of them were between 21-25 years. Remaining 4% of the respondents were 26 years and above. In terms of gender representation, around 56% of the participants were males and 44% were females. The educational qualification of about 20% of the participants was high-school level or below with around 80% of the participants being diploma/certificate holders. The key observations about aspirations of the youth of the district are highlighted below:

Table 441: Youth Aspiration – Key Responses - Surguja

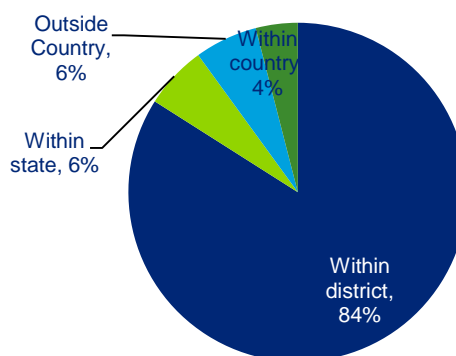
Parameters	Responses
Job Preference	Government job is preferred mostly over private job by the youth however; they feel that the employment should be provided on merit basis.
Factors influencing selection of training institution	Institutions are selected by youth on the basis of future employment prospects, proximity to home, availability of seats/ subject of interest and financial considerations.
Preferred Course	<ul style="list-style-type: none"> Women are interested in trades like tailoring & sewing and micro-industries like papad making, hawan samagri etc. Men expressed interest in trades of Electrician, Motor Mechanic, Fitter and Welder. The youth also suggested technical training in animal rearing. Apart from the regular courses offered by educational/ training institutions; spoken English, basic communication skills, personality development, soft skills & basic IT skills are considered to be very important by the youth.
Migrating for job	Most of the youth (84%) prefer jobs within their home district . Since the job prospect within the district is low, they are forced to migrate to cities Raipur, Bilaspur etc. But males are willing to go outside district and state for jobs.
Salary Expectations	Average monthly salary expectation of youth ranges between Rs. 10,000 –20,000/-
Areas of concern/ aspirations- Infrastructure	<p>Following views were expressed regarding infrastructure in educational institutions:</p> <ul style="list-style-type: none"> Youth reported poor quality of infrastructure in the institutes in terms of books in the library, building, laboratories etc. Blackboards, chalks and other basic amenities should be adequately provided. The inadequacy of computers in schools and non-functioning of those available was also highlighted.
Areas of concern/ aspirations-Course Curriculum	<ul style="list-style-type: none"> Rural youth expect free computer training, free coaching for competitive examination and training camps within the district. Youth feel that institutes should focus more on soft skill and language training besides technical know-how, and it is critical for getting a good job. Local industries should train people on apprenticeship/ intern model to improve job prospects.
Other concern	<ul style="list-style-type: none"> It was learnt that youth are not aware about the newly introduced Govt. initiatives on skill development such as VTPs (MES/ SDI scheme) and NSDC training partners.
Suggestions given by youth	<ul style="list-style-type: none"> The youth expect Govt. to take up initiatives to improve college infrastructure. There should be more courses, practical classes, resourceful, efficient and regular teachers available in the institutes. Counseling before taking admission in any course was suggested by the youth so that they can understand the proper career path. English, Hindi or both must be used as the medium of teaching.

A sample survey was conducted with youth at gram panchayat level & those coming out from various educational institutions (Government & private) to understand & capture their aspirations. The findings are presented below:

Job preference by youth

The majority of the youth we surveyed (84%) **prefer to get a job within their home district** as is evident from the adjacent figure. Approximately 6% of them preferred for job within their state of residence. The survey highlights the fact that around **90% of the youth surveyed wanted to get a job within Chhattisgarh** thus demanding and necessitating the creation of suitable positions and absorption capacity for them in the employment market. The survey reveals that not many youth are interested to migrate out of state in search of jobs.

Figure 469: Job Preference by Youth

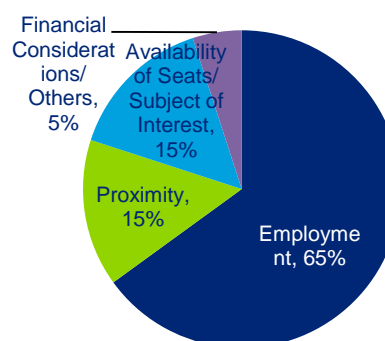


Source: Deloitte Analysis

Parameter for Institute Selection

A majority of the students surveyed (65%) quoted the prospects of future employment as their necessary criteria for choice of educational institute. Around 15% of the respondents especially at the gram panchayat level quoted the **proximity of the educational institution** as their prime parameter while selection of an institute for higher education while 15% of them mentioned the **availability of seats/subject of interest in the institute for making the choice**.

Figure 470: Parameter for Choice of Institute



Source: Deloitte Analysis

Youth Perception Mapping

Youth perception mapping was undertaken to understand their level of satisfaction with either their current institute or their experience and feedback on the available educational infrastructure. The results are summarized below:

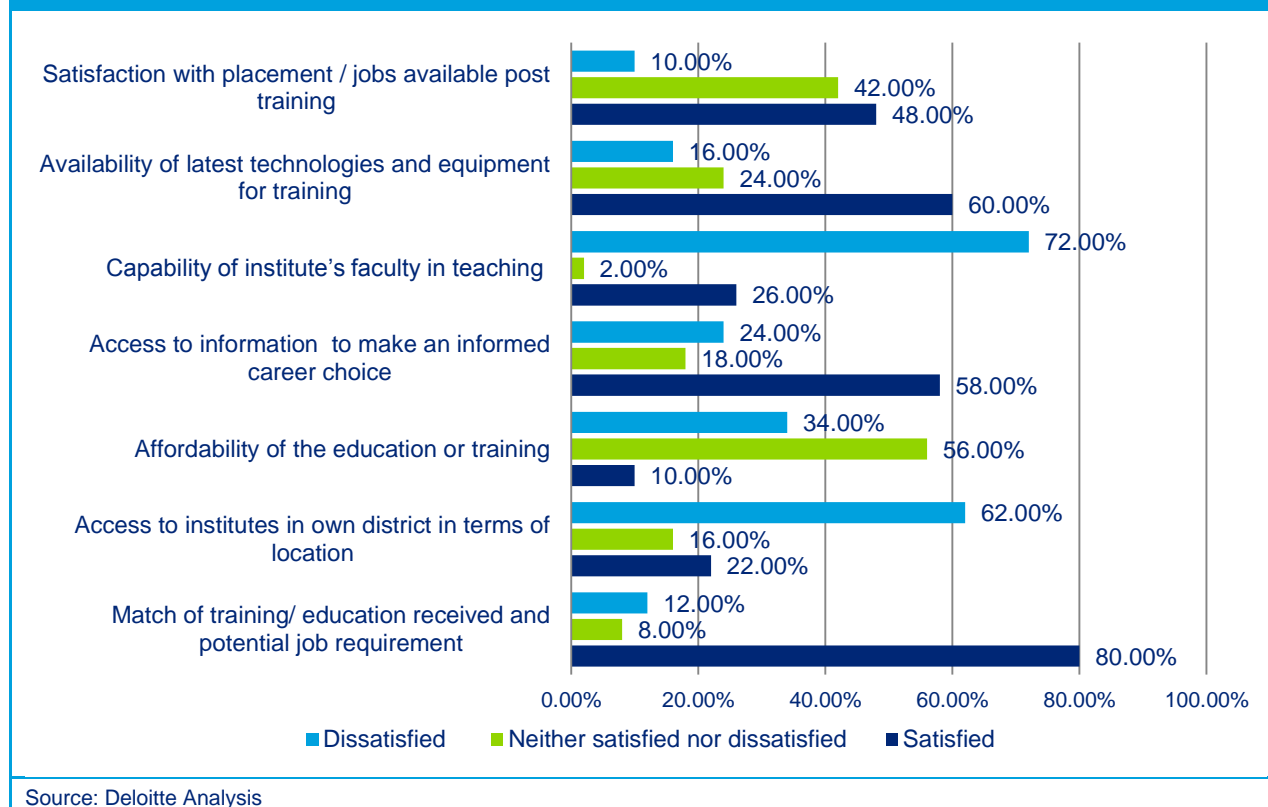
Satisfaction with placement / jobs available post training: Around 48% of the students surveyed expressed their satisfaction with the placement opportunity available in the institute or jobs available post training. While around 10% of them felt the job opportunities available to them post training were not satisfactory. They shared their expectation of being provided with a placement opportunity by the institute or facilitate a tie-up with nearby companies to give them an experience of hands on training.

Availability of latest technologies and equipment for training: 60% of the students surveyed expressed their dissatisfaction with the availability of latest technology & equipment for training in the institute while only 16% of them shared their satisfaction with the same. They felt the lack of equipment as a major constraint for their knowledge enhancement and appropriate level of skill development. They demanded the institutes to be adequately equipped and upgraded with latest technology.

Dissatisfaction with capability of institute's faculty in teaching: Around 72% of the students surveyed feel the **quality of teaching by faculty** is not satisfactory and needs significant improvement.

They demanded the number of faculty to be increased as per the demand of the course and the **lack of quality faculty in the institute to be compensated by inviting visiting faculty from outside.**

Figure 471: Youth Perception Mapping, Surguja



Need for better access to information to make an informed career choice: Around 58% of the students shared that they get proper accessibility to information in order to make an informed career choice. However, around 24% of them feel inaccessibility to information as a hindrance to informed choice of career. The concern was raised more by the rural youth. They emphasized the importance of career counseling while making a choice for higher education. This showcases the importance of having career counseling to the potential students either at the school level or at the respective vocational institutes.

Access to institutes is an issue in rural areas: 62% of the students surveyed expressed their **dissatisfaction with the accessibility** of the educational institutes and they found it to be inaccessible in terms of location and majority of them were rural youth. Around 22% of the youth found the institute to be located in an accessible area and safe in terms of the duration of classes. The rural youth voiced the government to support them by arranging suitable transport facility.

Satisfaction with the alignment of training/education received with job requirements: Approximately 80% of the students surveyed feel that the training/education currently provided by the educational institutes in the district is in alignment with the job requirements of the business. Only 12% of the youth felt that the training/ education received by them don't match the potential job requirements of the employers.

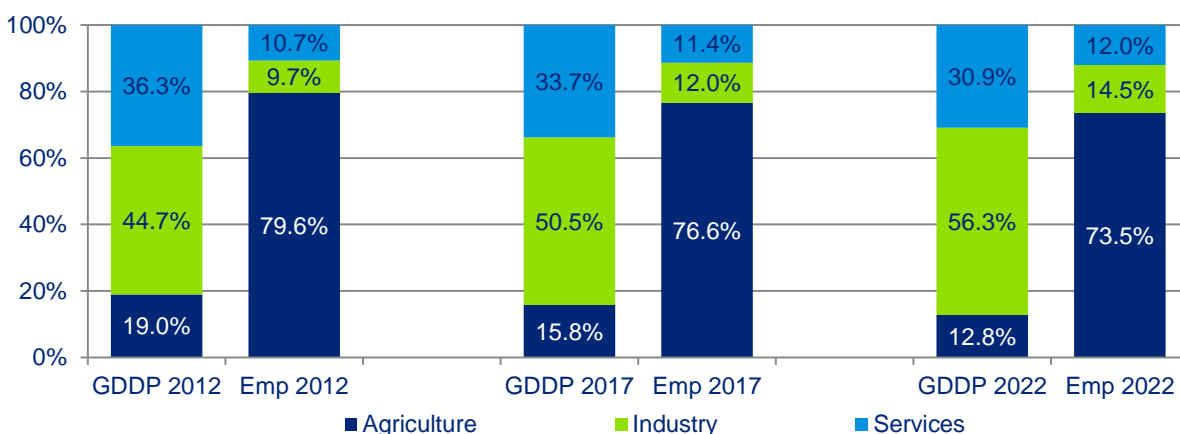
Key Observations:

- ♦ Government job is preferred mostly over private job by the youth however; they feel that the employment should be provided on merit basis.
- ♦ Institutions are selected by youth on the basis of future employment prospects, proximity to home, availability of seats/ subject of interest and financial considerations.
- ♦ Women are interested in trades like tailoring & sewing and micro-industries like papad making, hawan samagri etc. Men expressed interest in trades of Electrician, Motor Mechanic, Fitter and Welder. The youth also suggested technical training in animal rearing.
- ♦ Apart from the regular courses offered by educational/ training institutions; spoken English, basic communication skills, personality development, soft skills & basic IT skills are considered to be very important by the youth.
- ♦ Around 90% of the youth surveyed wanted to get a job within Chhattisgarh thus demanding and necessitating the creation of suitable positions and absorption capacity for them in the employment market.
- ♦ The youth emphasized the need to address Infrastructure gaps - particularly updating the library and laboratory with latest computers, tools and equipment.
- ♦ Youth expressed that the lack of quality faculty in the institute may be compensated by inviting visiting faculty from outside
- ♦ Youth are not aware about the different Government initiatives on skill development in district.

4.27.7 Skill Gap Assessment

The working age population (15-59) constituting 58.9% of total district population in 2011, is expected to increase to 62.1% by 2022.

Figure 472: Comparison of Sectoral share in GDDP & Employment, Surguja



Source: Deloitte Analysis

Based on our analysis and primary interactions, the Agriculture sector is expected to play a significant role and will continue to be an important sector in terms of providing employment in the district. It currently accounts for the largest share of workforce and is anticipated to be the major employer in the district. If the trends in employment continue, in 2021-22, the share of employment across the Agriculture sector is expected to decline to 73.5% as compared to 79.6% in 2012.

The Industry and Services sector employment share are estimated to increase to 14.5% and 12.0% respectively, as indicated in the table above. This trend appears to be in line with the national trend as well where people are moving out of the Agriculture sector and moving into the Industry and Services sectors respectively.

Incremental Human Resource Demand

As per the methodology, the total incremental demand for manpower in Surguja from 2012 to 2022 is expected to be around 0.79 lakh. Following table provides the break-up of the incremental demand for manpower in Surguja as per the skill levels required.

Table 442: Estimated Incremental Human Resource Demand ('00) by Skill Level in Surguja

	2013-17	2017-22	Total
Skilled	51	59	111
Semi-Skilled	108	125	233
Minimally Skilled	220	226	446
Total	379	410	790

Source: Deloitte Analysis

Some of the key trends observed on the demand side include

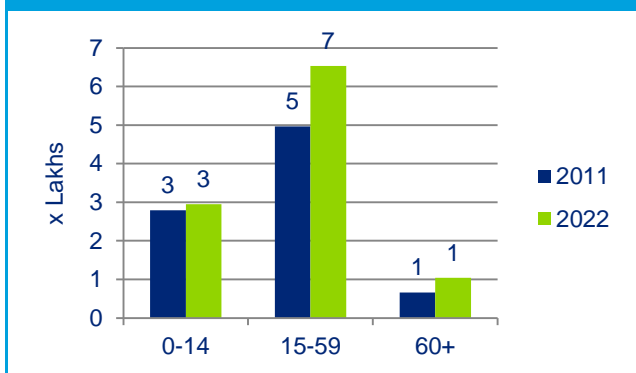
- ♦ *Agriculture would be the largest incremental demand generating sector (40.5%) in Surguja with demand largely in the minimally skilled level. About 41.67% of the total area has been developed for agriculture in the district. Paddy and wheat are the main crops grown in the district. Surguja is a NFSM district for pulses.*
- ♦ *The building and construction sector is estimated to be the next important segment in the district in terms of demand for incremental employment (15.2%) wherein the share of skilled, semi-skilled and min. skilled is projected to be around 15%, 40% and 45% respectively.*
- ♦ *Within the Industry sector, the other expected growth sectors in the district in terms of incremental demand for manpower include handloom and handicrafts-including furniture & furnishing (8.2%) and food processing - primarily agro based (5.7%).*
- ♦ *Analysis of formal and informal employment indicates that the incremental demand for manpower in formal sector would come mainly from Building and Construction, BFSI, Public Administration and Education & Skill Development Services.*
- ♦ *Majority of demand for incremental manpower in the informal sector is projected to come from Agriculture, Building & Construction, Food Processing and Handloom and Handicrafts.*

Table 443: Incremental Human Resource Demand ('00) by Skill Level in Surguja- Key Sectors

#	Key Sectors	2012-17				2017-22			
		Skilled	Semi-skilled	Minimally Skilled	Total	Skilled	Semi-skilled	Minimally Skilled	Total
1	Agriculture	5	16	143	164	5	16	135	155
2	Building & Construction	8	21	24	53	10	27	30	67
3	Handloom and Handicrafts (including Furniture & Furnishing)	3	18	9	30	4	21	11	35
4	Food Processing	2	6	13	21	2	7	15	24
6	Others	33	46	32	112	39	54	35	128
7	Total	51	108	220	379	59	125	226	410
Overall Incremental Demand					790				
Source: Deloitte Analysis									

Incremental Human Resource Supply

Figure 473: Age wise distribution of population, Surguja 2011 and 2022 (projected)



Source: Census 2011 and Deloitte Analysis

The population of Surguja is expected to increase from 8.42 lakhs in 2011 to 10.52 lakhs in 2022.

The adjacent figure provides the current and projected population across various age groups. As per the analysis, the number of persons in the working age group is expected to increase by around 32% during the period 2011-22. The number of children in the 0-14 age group is likely to decline by 5% over the same time period. This represents a potential demographic dividend for the district with a large increase in the employable population. On the other hand, it presents a huge challenge for the state to make available higher education and skill development facilities as well

as ensure productive employment opportunities for its working age population.

As per the methodology, the estimated incremental manpower supply in Surguja over a period of 10 years (2012-22) will be around 1.16 lakh. Incremental manpower supply can be further classified into skilled, semi-skilled and minimally- skilled as per the education qualifications and estimated output of educational and vocational training institutes in the district.

Table 444: Estimated Incremental Human Resource Supply ('00) by Skill Level in Surguja

	2012-17	2017-22	Total (2012-22)
Skilled	88	101	189
Semi-Skilled	175	192	367
Minimally Skilled	310	298	608
Total	573	591	1,164

Source: Deloitte Analysis

Some of the key trends observed on the supply side include

- Proportion of incremental supply of minimally skilled manpower is 52.2%, compared to 31.6% of semi-skilled and 16.2% of skilled manpower (2012-22)
- Surguja has 22 out of 590 colleges in the state indicating the district's share in the higher education space of the state at 3.7%. This is comparable to the share of population of Surguja to the state (3.3%). However, around 50% of the colleges present in the district offer only general degree courses. The proportion of skilled workers in the total workforce in the district is anticipated to be the least (15%) and likely to increase to 17% over the period 2017-22.
- The supply of semi-skilled workforce in the district is estimated to increase while the supply of minimally skilled workforce is likely to decrease over the two time periods which are in-line with the current focus of government in improving the skill development space of the state.
- The trend of migration is expected to be inward from other states and districts across all skill levels and would account for nearly 2.2% of the incremental supply.

Incremental Demand Supply Gap

During the period 2012-22, the incremental human resource demand in Surguja across all skill levels is estimated to be 0.79 lakh while the supply is projected to be 1.16 lakh indicating thus a surplus of around 0.37 lakh people (refer table below). There is estimated to be an excess supply across all skill segments

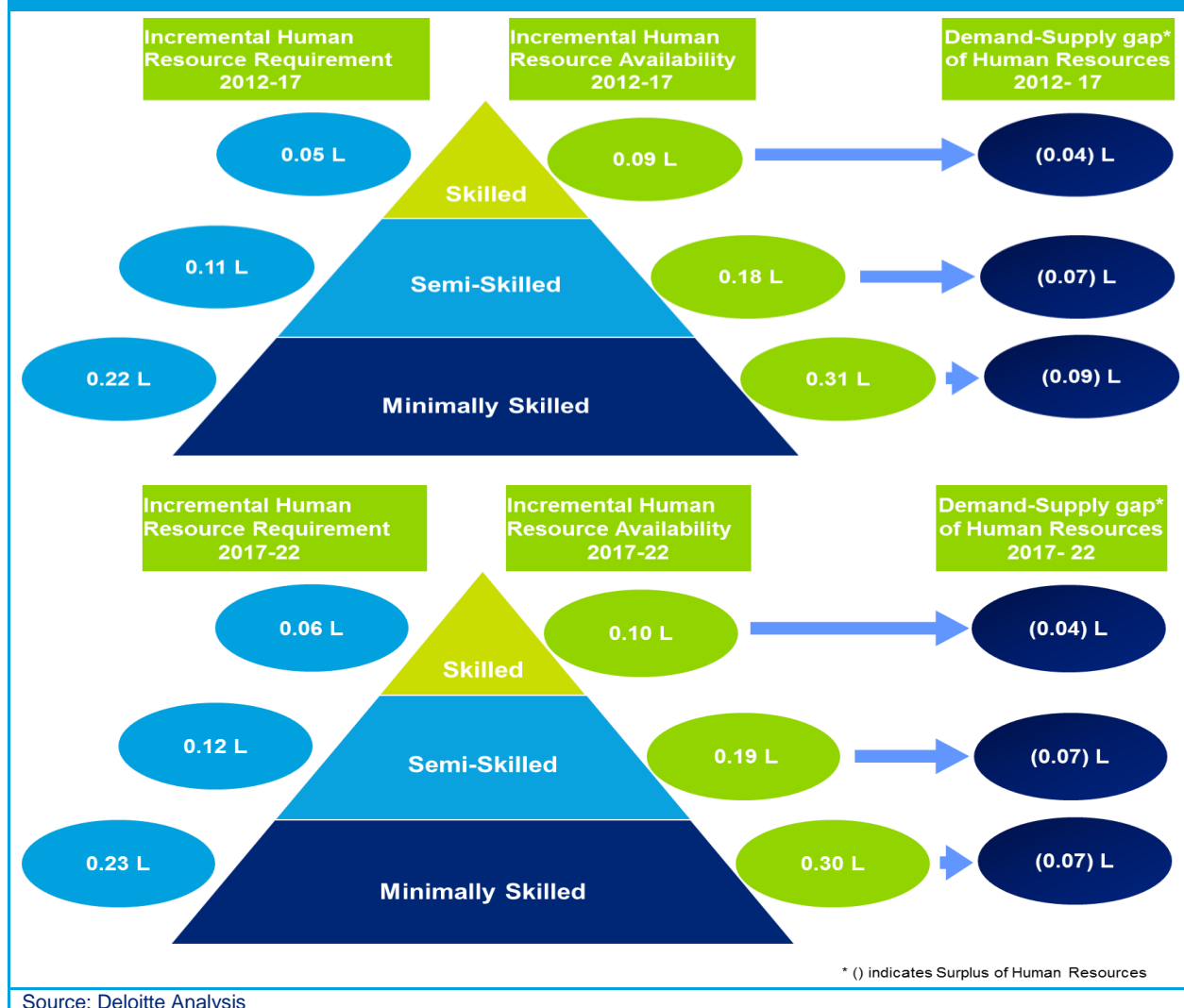
Table 445: Projected Demand Supply gap ('00) by skill levels in Surguja

#	District Skill Gap	2012-17				2017-22			
		Skilled	Semi-skilled	Min. Skilled	Total	Skilled	Semi-skilled	Min. Skilled	Total
1	Incremental HR Requirement (Demand)	51	108	220	379	59	125	226	410
2	Incremental HR Availability(Supply)	88	175	310	573	101	192	298	591
3	Demand-Supply Gap	(37)	(67)	(90)	(194)	(42)	(67)	(72)	(181)
	Overall Demand-Supply Gap	(375)							

Source: Deloitte Analysis

During the period 2012-22, the incremental manpower demand supply gap of the district (across all sectors mentioned above) is expected to be a surplus of about 0.37 lakh people with the excess supply across all skill categories i.e. skilled, semi-skilled and minimally skilled as shown in the following figure.

Figure 474: Incremental Demand-Supply Gap (in Lakhs) , Surguja



Source: Deloitte Analysis

Some of the key trends observed on the demand-supply gap include

- The composition of the human resource demand supply gap over the two different time periods i.e. 2012-17 and 2017-22 is expected to remain the same.
- There is likely to be an excess supply of skilled resources in the period 2012-22. However, even in the case of surplus supply of workers in the skilled segment, it is pertinent to note that it does not imply industry demand for skills is being sufficiently met. The industry interactions have revealed employability linked skills as a key area of concern. Approximately, 75% of the total skilled workforce in district is estimated to be from general degree courses having undergone no job/skill specific training. The changing landscape of the sector including use of new technology and practices imply a need for reskilling and up skilling of the existing workers.
- As indicated in the adjacent figures, the trend of excess supply is likely to continue in the semi-skilled segment across both the time periods. However, approximately 59% of the total semi-skilled workforce is estimated to be class 12 pass outs having undergone no job/skill specific training.
- In line with the rural-urban population distribution in the district (84% of the population residing in rural areas) and dominance of informal employment in sectors like agriculture and handloom & handicrafts in the district, the major contributor to the incremental supply is the minimally skilled segment. This may result in some intra state migration of the surplus supply of minimally skilled workers from Surguja to districts like Korea, Korba, Raipur, Durg etc. in search of employment.

Qualitative Skill Gaps

The qualitative skill gaps that were highlighted during our primary interactions with industry at Surguja are provided in the table below.

Table 446: Qualitative Skill Gaps

Sector	Level	Skill Gap
Agriculture	Tractor operator and mechanics/ Electricians/ Mechanics for repair & maintenance of agricultural tools & implements	<ul style="list-style-type: none"> • Sufficient training to address tool & equipment failures like motor pump failure, gear damage, tyre puncture etc.
	Project Managers/Engineers	<ul style="list-style-type: none"> • Knowledge of design and tools such as AutoCAD etc. • Knowledge of green/eco-building design • Project Management and People Management Skills • Knowledge of appropriate safety practices • Client Management skills (e.g. government officials for approvals, flat owners etc.)
Building & Construction	Supervisors: plumbing, electrical, carpentry, masonry, drilling	<ul style="list-style-type: none"> • Skills in civil- operations of ready mix m/c, earth movers, etc. • Basic repair and maintenance • Exposure to right methodology in construction specific skills like lining, leveling etc. • Site safety concepts and procedures • Lack of finishing skills
	Workmen: plumbing, electrical works, carpentry, masonry, drilling	<ul style="list-style-type: none"> • Basic operating skills related to relevant category • Improved/ better quality in finishing • Site safety concepts and procedures • Ability to understand & follow instructions/ manuals
Handloom & Handicrafts	Designer Marketing/ Procurement Managers	<ul style="list-style-type: none"> • Ability to forecast demand and undertake procurement accordingly • Communication and interpersonal skills
	Artisans	<ul style="list-style-type: none"> • Updated knowledge on latest designs and market requirements
Food	Procurement Managers	<ul style="list-style-type: none"> • Ability to forecast demand and undertake procurement

Sector	Level	Skill Gap
Processing		<ul style="list-style-type: none"> accordingly Ability to locate and enter into relationships with farmers
	Plant Associates and operators	<ul style="list-style-type: none"> Limited basic engineering knowledge esp. on practical aspects, process knowledge e.g. distillation
	Material Handlers	<ul style="list-style-type: none"> Limited awareness on quality, health and hygiene awareness Limited basic computer skills including barcode reading
	Sales and marketing	<ul style="list-style-type: none"> Limited Communication skills, ability and willingness to understand the manufacturing process
	Machine Operators	<ul style="list-style-type: none"> Insufficient knowledge of machine operation and use Ability to understand & follow instructions/ manuals Limited ability to carry out basic repairs and troubleshooting

4.27.8 Recommendations

Future Growth Opportunities in Surguja

In the context of the current economic profile and proposed investments of the district, the demand for human resources at various skill levels has been analyzed. The observations have been augmented by primary interactions with industry & industry association representatives in the district and government officials at the state and district level. Based on our analysis and considering factors like high growth and employment potential, priority sector for the state government, investment trends, etc., the following sectors/industries have been identified with future growth opportunities for employment and subsequently, skill development in Surguja.

Table 447: Key Growth Sectors - Surguja

#	Priority Sectors	Growth opportunities in skills development and employment
1	Agriculture	<ul style="list-style-type: none"> Agriculture provided employment to around 78% of the workers in the district in the year 2013 & is likely to be one of the major employers in district over the decade (2012-22). It is anticipated to be the largest incremental employer in the district accounting for around 40.5% of the total incremental demand for manpower and is expected to provide employment to around 31,953 additional workers over the decade. Paddy & Wheat cultivation would be the major activity within the Agriculture sub-sector in the district.
2	Building and Construction	<ul style="list-style-type: none"> Construction is another major sector in Surguja which is expected to grow at 11.8% over the decade (2012-22). The total budgeted value for ongoing building and construction activities (building and roadwork) in Surguja for the year 2013-14 is allocated at Rs.99 crores⁴⁹⁷. Building and construction is projected to be the 2nd largest incremental employer in the district with approximately 15.2% of the total incremental demand for employment estimated to come from the sector. In absolute terms, the sector is expected to employ 12, 010 additional manpower.
3	Manufacturing – Furniture & Handicrafts	<ul style="list-style-type: none"> Surguja is known for handicraft industry which produces clay items, bamboo items, terracotta items, wood-carvings etc. The artisans in the district are also famous for carpet weaving and Godna art. It is the production cluster for painted clay relief, Dhokra (Lost Wax Metal Casting) and Bronze ware under the Meta cluster Surguja & Raigarh⁴⁹⁸. Pahad Chidwa, Silma, Puhphutara and Luchki/Kanthiprakashpur are the important sub clusters in the Surguja district for handicrafts⁴⁹⁹. There are 41 existing handicraft clusters in the district which is the 4th highest in the state⁵⁰⁰. Manufacturing of handloom & handicrafts along with furniture and furnishing is likely to account for around 8.2% of the total incremental manpower demand in Surguja over the decade (2012-22).
4	Manufacturing - Food Processing	<ul style="list-style-type: none"> Agro based industries are one of the key industries in the MSME sector in Surguja with total estimated investments of Rs 3094.67 lakhs. Food processing is projected to be the 4th largest employer in the district with approximately 5.7% of the total incremental demand for employment estimated to come from this sector over the period 2012-22.
Source: Deloitte Analysis		

⁴⁹⁷ Chhattisgarh Public Works Department

⁴⁹⁸ Handmade in India-Crafts of India, Ranjan & Ranjan

⁴⁹⁹ *ibid.*

⁵⁰⁰ Chhattisgarh Handicrafts Sector Profile, Chhattisgarh Handicrafts Sector Meet, 2012

Considering the economic and skill landscape of Surguja, the table below indicates the priority areas of focus for key stakeholders involved.

Table 448: Key Recommendations for Stakeholders - Surguja

Stakeholder	Priority Areas
NSDC	<p>NSDC can focus the efforts of its training partners in the key sectors identified in the district, viz.</p> <ul style="list-style-type: none"> ♦ Agriculture ♦ Building and Construction ♦ Manufacturing – Handloom & Handicrafts/ Furniture & Furnishings ♦ Manufacturing – Food Processing
Private training providers	<ul style="list-style-type: none"> ♦ There is a need for more courses in building and construction owing to the likely demand for more trained workers in the sector. Additionally, courses in agriculture, handloom & handicrafts and food processing can also be explored. ♦ The training institutes should facilitate more industry tie ups especially in high growth sectors to focus on up skilling the existing workers as per current industry trend & requirements. ♦ The private training providers should collaborate with the Chhattisgarh Handicrafts Development Board for program design and training delivery in the handloom and handicrafts sector. They should invite senior persons from the Directorate as guest lecturers in an effort to expose the trainees on the latest trends in the sector. ♦ There is a need for design and delivery of bridge courses with a focus on communication, language, basic IT & soft skills to make students job ready as highlighted in youth survey as well.
Government	<ul style="list-style-type: none"> ♦ To improve upon the quality of education in the state, the government must mandate accreditation of colleges to initiate sustainable improvement in quality of education. ♦ The government can promote colleges under PPP mode for training and graduating more students in high demand sectors. ♦ The Directorate of Horticulture & Farm Forestry should arrange training and extension activities on areas like organic farming, soil conservation techniques; pest management etc. in the district owing to the dependence of the majority of the population on Agriculture. These training activities should be undertaken in tie-ups with the VTP's as well as NSDC partners operational in Surguja. ♦ Government can also establish VTP's nearby Pahad Chidwa, Silma, Puhphutara and Luchki/Kanthiprakashpur sub clusters in the Surguja district focused on providing training in the handloom & handicrafts and furniture & furnishing sectors. This would ensure proximity of the trained workers to the important production clusters. ♦ The government should undertake aggressive marketing and trade promotion of the handicrafts in the state by facilitating participation of the artisans in fairs/exhibitions, branding of the products, providing infrastructural support for technological up-gradation of the manufacturing process and creation of common facility centres in the individual clusters. ♦ The Chhattisgarh Handicrafts Development Board should encourage formation of more handicraft clusters for the artisans of the district and provide handholding services to the individual clusters in terms of financial assistance & marketing services. The individual clusters may be linked to the NABARD/KVIC for loan sanction. The Chhattisgarh Handicrafts Development Board should also initiate more partnerships with TRIFED for marketing of the products prepared by tribals.
Industry	<ul style="list-style-type: none"> ♦ More industry interactions should be initiated in the agriculture, building & construction, handloom & handicrafts and food processing sectors in the district. ♦ The major private players as well as public sector enterprises in the state should undertake and encourage vocational training as part of their CSR activities either by partnering with the Skill Development Institutes for training or providing funds/resources for the same. ♦ Industry players should collaborate with private training providers/skill development institutes for identification of sector specific employable skills based on division of work in the labor market and help in updating the course content as well as delivery of the programs.

5 Annexure

5.1 List of Key Official Interactions

#	District	Name	Designation
1	Balod	O.P. Deshmukh	District Planning and statistical Officer
2	Balod	C S Pandey	General Manager
3	Balod	Rajkumar Kurre	Employment Officer
4	Baloda Bazar	M.R.Jaiswal	District Employment Officer
5	Baloda Bazar	Nikhil Garg	Assistant Director
6	Balrampur	M. Bara	General Manager
7	Balrampur	S P. Tripathi	Deputy Director
8	Balrampur	Rajeev Kumar	PMRDF & AD DSDA
9	Bastar	Rajendra Debangana	Statistical Officer
10	Bastar	C.S. Rayast	Assistant Employment Officer
11	Bemetara	Sanjay Gajghate	Assistant Director
12	Bemetara	Chinmay Choudhary	District Employment Officer
13	Bijapur	M. B Singh	General Manager
14	Bijapur	N.R. Kashyap	Manager Grade II
15	Bijapur	Rajat Kumar Kujur	Assistant Statistical Officer
16	Bilaspur	A. C. Pahare	Deputy Director
17	Bilaspur	C. P. Singraul	CEO
18	Bilaspur	Thakur Ram Singh	District Collector
19	Bilaspur	P. Biswas	Assistant Director
20	Bilaspur	Tulsi Vikey	Secretary
21	Bilaspur	Rakesh Kumar Gupta	Assistant Development Officer (ADO)
22	Bilaspur	Narendra Shyamle	Employment Assistant
23	Bilaspur	T. K. Verma	CEO
24	Bilaspur	M. L. Kushre	General Manager
25	Bilaspur	Rajesh Baghel	JD
26	Dantewada	R.K. Bharti	Assistant Grade III
27	Dantewada	Manisha Rajgir	Assistant Manager
28	Dantewada	H.L. Devangam	ASO
29	Dhamtari	Y. Kujur	District planning and statistical Officer
30	Dhamtari	B. P. Vasnik	General Manager
31	Dhamtari	Biswanath Thakur	District employment Officer
32	Gariaband	Ashwini Kumar Patel	Assistant manager
33	Gariaband	Lakheshwar Verma	Assistant Director
34	Jashpur	P. Tigga	Assistant manager
35	Jashpur	Sri Ramjeet Ram	Assistant Director
36	Jashpur	Sri Ramjeet Ram	District Employment Officer
37	Kabirdham	Sri Jaiprakash	Assistant Director
38	Kondagaon	Vijay Kumar	District Collector
39	Kondagaon	Mayur Gupta	Assistant Director & PMRDF
40	Kondagaon	J. S. Netam	Investigator
41	Kondagaon	Ajit Sunder Bilung	GM (In-charge), Kondagaon
42	Kondagaon	M. Gupta	PMRDF
43	Korba	J. P. Khande	Dist. Employment Officer
44	Korba	M.L. Kushre	General Manager
45	Koriya	R K Sharma	General Manager

#	District	Name	Designation
46	Koriya	A K Gadebal	Assistant Director
47	Koriya	S K Bhawe	Dist. Employment Officer
48	Mahasamund	Pawan Kumar Netam	Dist. Employment Officer
49	Mahasamund	N.K Tiwari	Assistant Director
50	Mungeli	V.K. Kedia	Dist. Employment Officer
51	Narayanpur	N.C. Wahane	District Employment Exchange
52	Narayanpur	O.P. Bhadkaria	General Manager
53	Raigarh	Pramod Jain	Dist. Employment Officer
54	Raipur	Dr. Shashi Atulkar	Assistant Director
55	Raipur	Amitava Panda	Commissioner cum Director
56	Raipur	Solomon Matusila	Assistant Director
57	Raipur	Ajay Shrivastava	Deputy Director
58	Raipur	O P Banjare	In charge – Industrial Promotion & Project Development
59	Raipur	Anita Gupta	Assistant Labor Commissioner
60	Raipur	K. S. Patle	Assistant Director
61	Raipur	Suresh Tripathi	Additional Director
62	Raipur	P. K. Shukla	Chief General Manager
63	Rajnandgaon	S. K. Suryavanshi	Managing Director
64	Rajnandgaon	S Rajoriya	Dist. Employment Officer
65	Rajnandgaon	Prashit N Ambade	Assistant Director
66	Sukma	Shishir Kant Pandey	Project Director
67	Surajpur	V.K.Dewangan	General manager
68	Surajpur	Anshuman Gupta	Assistant Director
69	Surguja	S K Sinha	Assistant manager
70	Surguja	Jayprakash Dubey	Assistant Director

Note: The table above is only an indicative list, representing some of the key interactions held.

5.2 List of Key Industry and Industry Association Representatives Met/Interacted

#	District	Name	Designation	Industry/Industry Association
1	Balod	Lakhamasi Bhai Patel	Owner	Shri Laxmi Vijay Saw Mill
2	Balod	Govind Jain	Owner	Govind Rice Mill
3	Balod	Mohan Bhai Patel	President	Balod District Ricemill Association
4	Bastar	Ishwar Baghel	Owner	M/S Baghel Huller Atachakki
5	Bastar	Mukesh Kumar Thandagre	Owner	Corundum Craft
6	Bastar	Bhawar Bhathra	Owner	Bastar Chamber of Commerce & Industries
7	Bemetara	Rohit Preetwani	Owner	Brick Furnace
8	Bemetara	Jayparakash Navlani	Owner	Brick Furnace
9	Bemetara	Jayprakash Navlani	Member	Raipur Brick Association
10	Bijapur	Sanjay Lakkhar	Member	Bijapur Chamber of Commerce
11	Bijapur	K. Santosh Rao	Owner	K Santosh Rao Engineering works
12	Bijapur	B. Santosh Kumar	Owner	Maa Sarba Mangalam
13	Bilaspur	Anil Agarwal	Member	Matrix Motor Control
14	Bilaspur	P. Singh Bhatia	Director	Black Diamond Motors
15	Bilaspur	Ashish Mosses	General Manager	Black Diamond Motors Private Limited
16	Bilaspur	Harish Kedia	Chairman	Chattisgarh Laghu and Sahayak Udyog Sangh
17	Bilaspur	Anil Agrawal	Proprietor	Matrix Motor Kontrol
18	Bilaspur	Shri Rao	Liaison Officer	South Asian Agro Industries
19	Bilaspur	Vijay Arora	Manager	Radha vallabh Industries
20	Bilaspur	Kamlesh	Liaison Officer	Phil Ispat pvt. Ltd
21	Bilaspur	Sunil Mardha	Onwer/MD	Gautam Plastic Limited
22	Dantewada	Rajkumar Malvya	President	Dantewara Byapari Kalyan Sangha
23	Dhamtari	Ajay Mehta	Owner	Vikash Rice Mill
24	Dhamtari	Ashoke Jain	President	Nagari Shihowa Rice Mill Association
25	Durg	Sunil Bansal	Director	Bajrang Agrotech Pvt. Ltd.
26	Durg	Narayan Kheyan	Manager	Kishor Sortex & Rice Mills (P) Ltd
27	Gariaband	Tejpal Singh	Proprietor	Shammi Paddy
28	Gariaband	Husain Memon	Treasurer	Gariyaband Rice Mill Association
29	Jangir-Champa	Sanjay Aggarwal	Director	Kishan Rice Mill
30	Jangir-Champa	Manish Aggarwal	Director	Baijnath Food Product
31	Jashpur	Bansh Raj	Owner	Bansh Raj Stone Crusher
32	Jashpur	Ashish Agarwal	Owner	Hari Rice Mill
33	Jashpur	Manish	Owner	Manish Food Products
34	Kabirdham	Chitrarekha Sharma	Owner	Maa Sharda Industry
35	Kabirdham	Dhirendra Singh Thakur	Director	Fly Ash Bricks Union
36	Kondagaon	Trilochand Manik Lal	owner	Harisa golcha
37	Kondagaon	Mr. Harish Golcha	Owner	Trilokchand Maniklal
38	Kondagaon	Mr. Bhupesh Tiwari	President	Sathi Samaj Sewi Sansthan, Kumharpada
39	Kondagaon	Mr. Naveen Golcha	Rice Mill Owner	Rice Mill
40	Koriya	Mahendra Kumar	Treasurer	Rice Mill Association
41	Koriya	Subhash	Owner	Subhash Brick Industry

#	District	Name	Designation	Industry/Industry Association
42	Koriya	Hafiz	Owner	Aqsa Rice Mill
43	Mahasamand	Kailash Rathi	Owner	Yug darshan hawan samgru
44	Mahasamand	Jitendra Chandrakar	Director	Birkoni Industry Association
45	Mahasamand	Chandar Tiwari	Owner	Perfect herbal oil
46	Mungeli	Satender Kesarwani	Director	Om Sai Fly,S.Bricks
47	Narayanpur	Mahendra jain	Owner	Adinath Chawl Industry
48	Narayanpur	Praveen Jain	Owner	Jain Bakery
49	Raigarh	Vasudeo Agarwal	Owner	Jagdish rice mill
50	Raigarh	Sri Kant Aggrawal	Owner	Sidhi rice mill
51	Raigarh	Sri Jagdish pragrawal	Director	Raigarh Rice mill association
52	Raipur	Shri Kamal Sarda	Director	Raipur Alloys and Steel Limited
53	Raipur	Sumit Dubey	Resident Officer	PHD Chamber of Commerce and industry
54	Raipur	R. G. Dwivedi	Resident Director	PHD Chamber of Commerce and industry
55	Raipur	Jagdish Singh	CEO	Monnet Ispat Limited
56	Raipur	P. K. S. Baghel	AGM, HR	Monnet Ispat Limited
57	Raipur	V.T.Naidu	DGM (HR)	Sarda Energy & Minerals Ltd.
58	Raipur	Ajay Singhal	GM (F&A)	Sarda Energy & Minerals Ltd.
59	Raipur	Subhash Agarwal	President	Chhattisgarh Steel Chamber
60	Raipur	Sanjay Thakur	Liaison officer	Ultratech Cement
61	Raipur	Ashok Kr. Agrawal	Owner	Sonata, Ramsagar para
62	Raipur	Shashi Ranjan	GM-PE & M	NTPC
63	Raipur	Ramesh Rao	MD	Pioneer Homes
64	Raipur	N. J. Jhadav	GM-TS/Project	NTPC
65	Raipur	Surajit Sarker	State Head	CII
66	Raipur	J. M. Dhir	Advisor-Corporate Affair	Vedanta
67	Raipur	Vivek Gulhare	Manager	Vedanta
68	Raipur	Awadh Lal Shukla	GM-Operations	Hotel Babylon International
69	Raipur	Rejina Nitin	Regional Manager	Bharti AXA
70	Raipur	Pradeep Tandon	Executive VP	Jindal Steel
71	Raipur	Samir Sharma	AGM, Corporate Affairs & CSR	Lafarge Cement
72	Raipur	Amit Tiwary	Director	Mahamaya cable operator
73	Raipur	Amar Dhavna	Acting President	Chhattisgarh Chamber of Commerce & Industries
74	Rajnandgaon	Manoj Aggrawal	Director	Sri Goyal Dall mill
75	Rajnandgaon	Madan Parakji	Director	Rajnandgaon rice mill Association
76	Sukma	Manoj Kr.	Proprietor	Dadhichi rice Mills
77	Sukma	Khemraj Jain	Proprietor	Arihant rice Mills
78	Sukma	Hukumi Chand jain	President	Sukma rice mill Association
79	Surajpur	Rakesh	Director	Rakesh Bricks Pachoria
80	Surajpur	Sanjay Singh	Manager	Saket Rolling Mill pvt ltd
81	Surguja	Vishal	Owner	Vishal brick industry
82	Surguja	Dinesh Kumar Gupta	Owner	Bhagwati ricemill
83	Surguja	Vinod Kumar Aggrawal	President	Sarguja rice mill Association
84	Surguja	Vishal shukla	Director	Brick industry association

Note: The table above is only an indicative list, representing some of the key interactions held.

5.3 List of Key Education and Skill Institutes Met

#	District	Name	Designation	Education/Skill Development Institute
1	Balod	Priti Deshmukh	Branch Manager	AISECT Computers
2	Baloda Bazar	Jageshwar Prasad Patel	Branch manager	AISECT Computers
3	Balrampur	Chandan Gupta	Director	Ansh Computer Centre
4	Balrampur	Mr. Sudhanshu Srivastava	C.E.O.	Kavita Welfare Society
5	Balrampur	Anil Kumar Kashyap	C.E.O.	Govt I.T.I ,Ramanujganj, Balrampur
6	Balrampur	Ramjee Pandey	PRI	Govt Polytechnic
7	Bemetara	Soni Aggrawal	Principal	Sri Mahalaxmi Harikalyan Sewa Samiti
8	Bemetara	Rashmi Srivastav	Principal	Nano Production, Krishna Vihar, Bemetara
9	Bilaspur	Aby Abraham	Owner	Robert Kanan Bala Smriti Sewa Sansthan
10	Bilaspur	Sapna Abraham	Owner	Robert Kanan Bala Smriti Sewa Sansthan
11	Bilaspur	D.W.Patil	Director	Rural Self Employment Training Institute
12	Bilaspur	Harish Kedia	President	Govt. Women ITI, Koni, Bilaspur
13	Bilaspur	Mr. C. P. Kanwar	Principal	Govt. Women ITI, Koni, Bilaspur
14	Dantewada	Akhilesh Yadu	Principal	NMDC DAV Polytechnic
15	Dhamtari	Salma Parveen	Principal	Alshums Infotech College
16	Durg	Abhilekha Bishwal	Principal	P.G. College of Nursing, Bhilai
17	Durg	Mohammed Akmal	M.D.	Ashrafia Institute Of Education
18	Gariaband	Satya Prakash Manikpuri	Institute head	Akar Foundation Society
19	Janjgir Champa	D. Kamla	Director	Learning Computer Centre
20	Janjgir-Champa	Ramesh Kumar Rathore	Principal	DBM Industrial Training Centre
21	Janjgir-Champa	S.K. Sivhare	Principal	Govt. I.T.I., Janjgir
22	Jashpur	R.K.Aggrawal	Principal	Govt. Polytechnic
23	Jashpur	R. V. B. Singh Deo	Principal	ITC, Jashpur
24	Kondagaon	B. L. Lahiri	Principal	Industrial Training Institute
25	Kondagaon	Yogita Dewangan	Trainer	Women's ITI, Kanker
26	Korba	A.K. Verma	Principal	Industrial Training Institute
27	Korba	Rajesh Aggarwal	President	Korba Shikshan Samiti
28	Koriya	Babita Yadav		Govt Polytechnic
29	Koriya	P. Pandey	Training Officer	Govt. ITI
30	Mungeli	R.K.Sahu	Principal	Govt. ITI
31	Raigarh	Rekha	Centre Head	Technosiis Technical Education
32	Raigarh	Bishwajit Singh	Director	AISECT Computers
33	Raigarh	S L Verma	Director	Women , ITI
34	Raigarh	Ragvendra Singh	Director	Ngc Computer Centre
35	Raipur	Dr. Sumi Guha	Project Coordinator, PwD	Government Girls Polytechnic, Bairan Bazaar, Raipur
36	Raipur	Mr. Umesh Kumar Tiwari	Project Consultant, CDTP Scheme	Government Girls Polytechnic, Bairan Bazaar, Raipur
37	Raipur	Mr. H.S. Harmo	Project	Government Girls Polytechnic, Bairan

#	District	Name	Designation	Education/Skill Development Institute
			Coordinator, CDTP Scheme	Bazaar, Raipur
38	Raipur	Mr. Pawan Gupta	Member Finance	Nalanda Education Society
39	Raipur	Mr. Homesh Yadav	Administrator	Gracious College of Nursing
40	Raipur	Mr. Vijay	Staff	Gracious College of Nursing
41	Raipur	Mr Pankaj Kumar	Area Co- ordinator	CG Centre for Entrepreneurship Development
42	Raipur	Mr Satendra Srivastava	Director	NIBF
43	Raipur	Mr Shashikant Verma	State Head- Sales/BD	AISECT Computers
44	Raipur	Mr Ashish Gautam	State Head- Projects	AISECT Computers
45	Sukma	K.N. Paliwal	Superintendent	Govt. ITI
46	Surajpur	Vivek Shukla	Director	Vinayaka Institute Bhaiyathan Road

Note: The table above is only an indicative list, representing some of the key interactions held.

5.4 List of FGD and Youth Surveys

#	District	FGD venue	Number of Participants	Youth survey venue	Number of Participants
1	Balod	High School Building in Junjer GP	32	<ul style="list-style-type: none"> AISECT Computer, Govt. I.T.I. 	60
2	Baloda Bazar	Anganwadi Centre, Bhatapara	19	<ul style="list-style-type: none"> AISECT Computer Prashikshan Kendra Industrial Training Institute Sakari Balaji Pvt. ITI, Bhatapara Target Computer Institute 	99
3	Balrampur	Gram Panchayat Bhavan, Jabar	29	<ul style="list-style-type: none"> Ansh Computer Centre Kavita Welfare Society Polytechnic, Ramanujganj Govt. ITI, Ramanujganj, 	107
4	Bastar	Gram panchayat Bhavan, Jagdalpur	24	<ul style="list-style-type: none"> Government Industrial Training Institute, Jagadalpur RT Institute of Social Work Training & Management, Durga Chawk 	46
5	Bemetara	Gram Panchayat, Lolesara	16	<ul style="list-style-type: none"> Sri Mahalaxmi Harikalyan Sewa samiti Nano Production, Krishna Vihar 	101
6	Bijapur	House of Anganwadi center of Itpal GP	10	<ul style="list-style-type: none"> Government ITI 	25
7	Bilaspur	Madanpur GP	20	<ul style="list-style-type: none"> Women Industrial Training Institute, Koni, Bilaspur 	80
8	Dhantewada	Gram Panchayat Bhavan of Balud	36	<ul style="list-style-type: none"> NMDC DAV Polytechnic Industrial Training Institute, Geedam 	36
9	Dhamtari	Gram Panchayat Bhavan of Jamvargaon GP	22	<ul style="list-style-type: none"> Government Higher Secondary school Government Industrial Training Institute, Khurd 	53
10	Durg	Gram Panchayat, Anjora	32	<ul style="list-style-type: none"> P.G. College of Nursing Ashrafia Institute of Education Government Women Industrial Training Institute, Khursipar Government Industrial Training Institute, Bhilai 	95
11	Gariaband	Gram Panchayat, Mazarkatta	22	<ul style="list-style-type: none"> I.T.S (pvt.), Industrial Training Institute Akar Foundation Society, Sharda Chowk; 	75

#	District	FGD venue	Number of Participants	Youth survey venue	Number of Participants
				<ul style="list-style-type: none"> Government Industrial Training Institute, Gariaband 	
12	Jahangir Champa	Anganwadi centre-3, Sarkhogram Panchayat	20	<ul style="list-style-type: none"> Learning Computer Centre, Kera Road; Bhagwati Devi Shikhan Samiti, NAC-MIT, Computer Zone link road DBM Industrial Training Center Government Industrial Training Institute 	88
13	Jashpur	Gram Panchayat Bhavan, Kanmora	66	<ul style="list-style-type: none"> Polytechnic College Jashpur School of nursing Raja Vijay Bhushan Singh Deo ITC 	114
14	Kabirdham	Gram Panchayat Bhavan, Nevani	32	<ul style="list-style-type: none"> IT Zone, Ekta chowk, Parihar complex Government Industrial Training Institute 	60
15	Kanker	Gram Panchayat Bhavan, Keboti GP, Kanker	27	<ul style="list-style-type: none"> Women Industrial Training Institute Government Industrial Training Institute Institute of Skill Education 	46
16	Kondagaon	Industrial training institute Kondagaon	14	<ul style="list-style-type: none"> Industrial Training Institute, Kondagaon 	13
17	Korba	Gram Panchayat Bhavan, Korkoma	20	<ul style="list-style-type: none"> Korba Shikshan Samiti, KCC Campus; Women Industrial Training Institute, Korba 	111
18	Koriya	Gram Panchayat Bhavan, Bhadi	20	<ul style="list-style-type: none"> Government Industrial Training Institute, Baikunthpur Government Polytechnic AISECT 	50
19	Mahasamand	Gram Panchayat Bhavan, Macheva	29	<ul style="list-style-type: none"> Jai Hind College Shantri Bai Aris Commerce and Science College Government Polytechnic 	100
20	Mungeli	Gram Panchayat Bhavan, Limha	17	<ul style="list-style-type: none"> B.R. Sao G.M.H.S.S. Panday Computer, Goal Market Govt. Industrial Training Institute, Mungeli 	97
21	Narayanpur	Gram Panchayat Bhavan of GarhBengal GP	54	<ul style="list-style-type: none"> R.K.M Industrial Training Institute, Narayanpur Women Industrial Training Institute 	39

#	District	FGD venue	Number of Participants	Youth survey venue	Number of Participants
22	Raigarh	Gram panchayat Bhavan, Patelpali	27	<ul style="list-style-type: none"> • Technosiis Technical Education Centre • AISECT computer • NGC computer • Women Industrial Training Institute 	100
23	Raipur	Girola GP	18	<ul style="list-style-type: none"> • Government Girl's Polytechnic, Raipur • Women Polytechnic, Bairan Bazar, Raipur 	18
24	Rajnandgaon	Gram Panchayat Bhavan, Uparwah	28	<ul style="list-style-type: none"> • Government Industrial Training Institute, Rajnandgaon • Apex Institute of Management • NIIT Rajnandgaon Centre, Anupam Nagar 	100
25	Sukma	Gongla GP	42	<ul style="list-style-type: none"> • IL&FS Skills School SESS • OM Cyber Computer Academy 	41
26	Surajpur	Gram Panchayat Bhavan, Parri	21	<ul style="list-style-type: none"> • AISECT Computer Education • Vinayak Institute Bhaithana Road • U.I.C.T. Computer Centre, Bhaiyathan Road • AITECH Education and Computer, Surajpur 	88
27	Surguja	Gram Panchayat Bhavan, Ganghari	25	<ul style="list-style-type: none"> • Government Polytechnic, Ambikapur 	50

Note: The table above is only an indicative list, representing some of the key interactions held.



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