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National
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Corporation

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

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Acronyms and Abbreviations

CII	Confederation of Indian Industry
CMIE	Centre for Monitoring Indian Economy
DRS	Development and Research Services Private Ltd.
EGMM	Employment Generation and Marketing Mission
GDDP	Gross District Domestic Product
GSDP	Gross State Domestic Product
ITI	Industrial Training Institute
ITC	Industrial Training Centre
MSME	Micro, Small and Medium Enterprises
NSDC	National Skill Development Corporation
NSDF	National Skill Development Fund
REEMAP	Rajiv Education and Employment Mission in Andhra Pradesh
SSI	Small Scale Industries
TOR	Terms of Reference
VTI	Vocational Training Institute

Preface

Skill development plays a critical role in the economic and social development of a country. Skilled manpower is key to leveraging the opportunities globalization presents. An emerging economy such as India requires a large and skilled workforce. However, skill shortage is evident in every sector of the economy, and it is proving to be a roadblock to growth.

India has one of the largest and youngest populations in the world. However, about 80 percent of its workforce does not have identifiable marketable skills. This is primarily due to the lack of focus on development of specific skills demanded by industry. Moreover, employers, particularly in small-scale industries, do not give due recognition to the value skilled workers bring.

India is transitioning to a knowledge-based economy. To gain a competitive edge, the country needs a workforce capable of creating, sharing and using knowledge more effectively. It needs to develop skilled workers who will be more flexible, analytical, and adaptable and multi skilled.

To map the challenges and come up with actionable insights, the National Skill Development Corporation (NSDC) has undertaken a massive exercise to conduct a countrywide skill gap assessment. For the state of Andhra Pradesh, it mandated Accenture to undertake a district-wise study. The objective of the study was to assess the skill gaps from three perspectives—the demand, the supply and the support infrastructure. To assess the existing and future demand both in qualitative and quantitative terms, Accenture gathered and analyzed inputs from the industry. A detailed survey of the existing workforce and the demographic trends mapped the supply scenario. A study of the training institutes and the services offered by them completed the skill gap assessment.

The findings of this survey throw up actionable insights for all four stakeholders in skill development—NSDC, the state government, the industry and training institutes. The survey highlights the opportunities and the challenges in skill development, which can prove to be the building blocks for more effective policy making.

For this extensive study, Accenture conducted a detailed survey covering all 23 districts of Andhra Pradesh. We also collated and corroborated secondary data from government reports and departments. Accenture sought the help of the Confederation of Indian Industry (CII) and other industry associations to organize inputs from employers in various sectors.

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Introduction

Chapter 1: Introduction

1.1 Objective of the Study

The overall objective of this study is to assess the skill gap at the district level, both in terms of the manpower and the skills required. This study would provide the As-Is scenario of skill gap in terms of numbers of manpower estimates and required skills. It looks at the current and future state of industries, employment opportunities across industries, existing skill gaps in vocational and skill training infrastructure (demand-supply gap), action plans and recommendations for all the stakeholders involved. The study will be leveraged by the National Skill Development Corporation (NSDC) and the Andhra Pradesh government to develop a suitable skilling intervention for various districts of the state.

The study covers the following areas:

- Review the district-wise socioeconomic profile, focusing on demography, economic profile and the state of education
- Identify developmental opportunities keeping in mind factor endowments and stakeholder perspectives
- Identify specific developmental initiatives that impact employment generation
- Articulate the aspirations of the youth
- Identify the current and future (next 10 years) skill and manpower requirements by industry, and the existing and projected skill gaps
- Assess the existing vocational training infrastructure, both private and government
- Suggest suitable, specific and actionable interventions or recommendations to address the skill gap

1.2 Limitations of the Study

- Key employers not willing to share data on vacancies and demand.
- Possibility of the secondary data with departments being obsolete and of a mismatch in data on a particular indicator taken from two different sources.
- Possible delay in completion of the field surveys due to a delay in issuance of authorization letter for the study in certain districts.
- Seasonal migration and volunteers not taken into account.
- Assumptions of mathematical regularity were made for estimating incremental Workforce requirement and availability.
- The sample size for primary research was influenced by the time-bound nature of the study.

1.3 Methodology for skill gap assessment and prediction

Given the scope of work outlined in the previous section, a detailed approach and methodology has been developed for a skill gap assessment and prediction, keeping in mind the key focus areas for all stakeholders and the outcomes to be derived (see Figure 1).

The study looks at the current and future potential for employment generation in various sectors, and the absorption of skilled, semiskilled and minimally skilled workforce into appropriate sectors. It examines the following three critical components:

- Demand-side parameters
- Supply-side parameters
- Support-side parameters

Demand-side parameters include FDIs, investment trends and potential, sector-specific growth patterns, production and consumption patterns.

Supply-side parameters include the availability of workers (skilled, semiskilled and minimally skilled), their levels of qualification and specialization, and the need for possible skill enhancement to adapt to new technologies and demand trends.

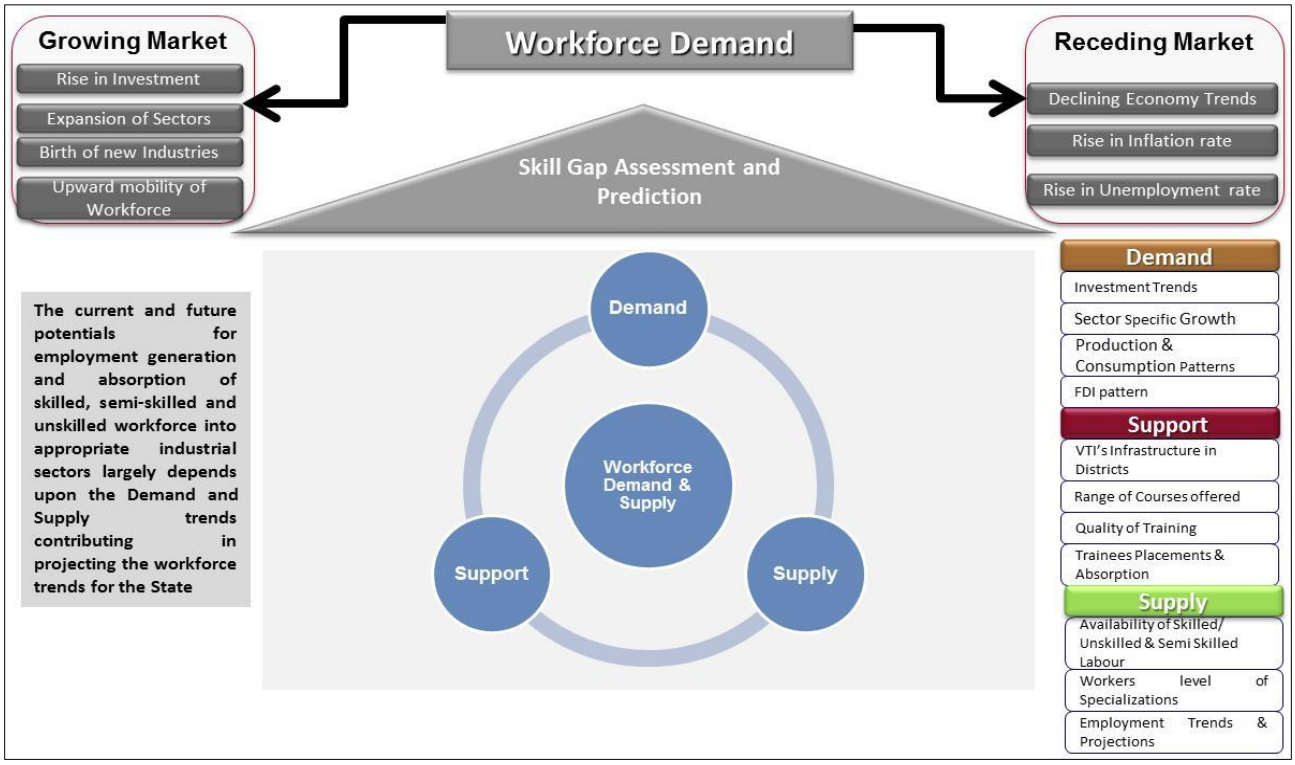


Figure 1 Hypothesis on skill gap assessment and prediction

Support-side parameters include vocational training facilities, access to them, the learning opportunities and quality of services they provide and their adoption of new technology.

It is essential to understand the interplay of the parameters mentioned above and classify them under "causes" and "effects" parameters. While primary and secondary data may be available for many parameters, there is still a need to use proxy indicators to validate the hypothesis.

It is also critical to examine the interplay of the above parameters in two different scenarios:

- A growing market
- A receding market

A growing market is expected to see a rise in investments, expansion of sectors, opening of new industries and upward mobility of the workforce, followed by corresponding rise in the supply side, with an increasing demand for new training courses and skills. The support side is also expected to increase the number of VTIs, options for training and upgrade technology.

On the other hand, in case of a slowdown, the demand-side parameters are expected to show negative trends. In such scenarios, the supply side is likely to cut investments in the workforce or skill upgrade, while the support side is expected to react by limiting VTI expansion and adopting a more financially viable model. The study proposes to test the hypothesis given above using primary and secondary data on objectively verifiable indicators.

1.3.1 Methodology of the Study

Considering the primary objectives of the study, the respondents—employers, labor unions, youth and VTIs (private as well as government)—have been chosen from across districts. The study relies on data from primary as well as secondary sources. Data from primary sources have been sourced using structured questionnaires and qualitative approaches such as in-depth interviews using the discussion guidelines on a one-to-one basis. Secondary data has been collected from various sources such as Census data and Statistical Abstract report, Planning Commission, Directorate of Economics & Statistics Andhra Pradesh. Fig 2 mentions key points undertaken for the study, both qualitative and quantitative approach was followed for academic projections for the study.

For this study, carried out along with Development & Research Services Pvt.Ltd., (survey partner) trained supervisors and teams of professional field investigators have been given a formal orientation and deployed for field surveys.

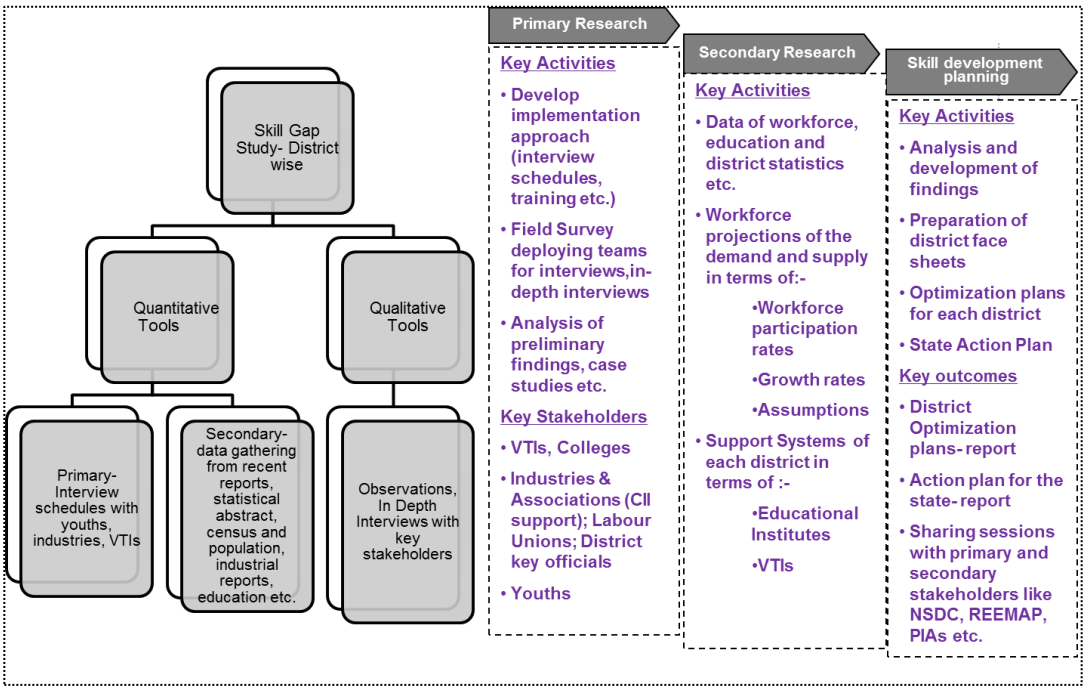


Figure 2 Study methodology; mix of qualitative and quantitative approach for Andhra Pradesh

1.3.2 Primary Data Collection

Emphasis has been given to primary data collection to get the perspectives of all the stakeholders involved—government officials, industry associations, vocational training providers, labor unions and most importantly - the youth.

For the survey of youth, the information was gathered to give insights into the aspirations of the people, a critical factor to consider while making action plans or recommendations for skill development so that skilling activities are relevant, both for trainees or workers and as well for employers. In order to fully capture, the youth under different target categories in 15-29 age group. Lower age limit was chosen as it was felt that the survey method of eliciting information would not be suitable for those below that age. Upper limit was fixed keeping in mind the yardstick used by the Government to define who are the youth. Respondents in survey are composed of school drop outs, job seekers, young employers and self-employed. Out of the sample basket for youth, maximum weightage has been given on the youths under unemployed and trainees to understand the job specific issues

For survey of major employers, a meticulous approach has been adopted so that the survey has a wide representation of stakeholders. Stratified (disproportionate) sampling has been used to capture the employer (industry) sample.

For survey of State's Vocational Training Institutes, care has been taken to ensure that both private as well government VTIs from every district are covered. The survey has included trainees, the unemployed, self-employed and employed. Youth enrolled with VTIs have been interviewed. The survey has covered industry associations too—the Accenture team through the efforts of the Confederation of Indian Industry (CII) which has helped get in-depth interviews with industry associations. The survey has also reached out to district officials involved in skill development initiatives. Based on cluster sampling known institutes, educational institutes such as engineering and medical colleges were also covered to gain an understanding of the job market and skill gap in the state.

The table below gives targeted sample size for industry, vocational training, government, youth, labor unions and educational institutions.

Table 1 Targeted sample size for industry, vocational training, government, youth, and educational institutions

Quantitative Research Method	Sample Covered per District	Total Sample - State
Questionnaire for Employer/ Industry	10-25 Employers: • Agriculture sector: 2-5 • Industry sector: 4-10 • Service sector:4-10 Most of the industries covered large and medium scale industries of high growth sectors (as per availability)	420
Questionnaire for Vocational Training Institutions	Total 10 functional VT Institutes 5 Government + 5 Private (as per availability) (Government & Registered Private VTIs with high Intake capacity, wide range of courses offered)	237
Questionnaire for Youth Survey	Total 60 youths per district: • 10 Youths (employed) • 10 Youths (Self Employed) • 20 Youths (Unemployed) • 20 Youths (Trainees)	1384
In depth Interviews with Government Departments	1-2 representatives from specific department per district	
In depth Interviews with College / University	2 major institutions per district	
In depth Interviews with Industry Associations	1 (included in government representatives)	145

1.3.3 Cluster-based approach

In order to complete the study within the stipulated time frame, we had opted for a cluster-based approach—dividing the state into small clusters of four to five districts. See Table 1 for the proposed clusters:

Table 2 Cluster approach for the study in the state

Cluster No.	Districts Covered
1	Srikakulam, Visakhapatnam, Vizianagaram, West Godavari, East Godavari
2	Krishna, Guntur, Prakasham, Nellore, Chittoor
3	Cuddapah, Anantpur, Kurnool, Mehbubnagar
4	Nalgonda, Nizamabad, Rangareddi,Medak
5	Adilabad, Karimnagar, Khammam, Warangal

1.3.4 Field teams for the survey

Table 3 Team structure for each cluster of districts

Cluster approach & Field Team Structure	
Cluster supervisor	1 supervisor per cluster
Cluster investigators	3 investigators per cluster

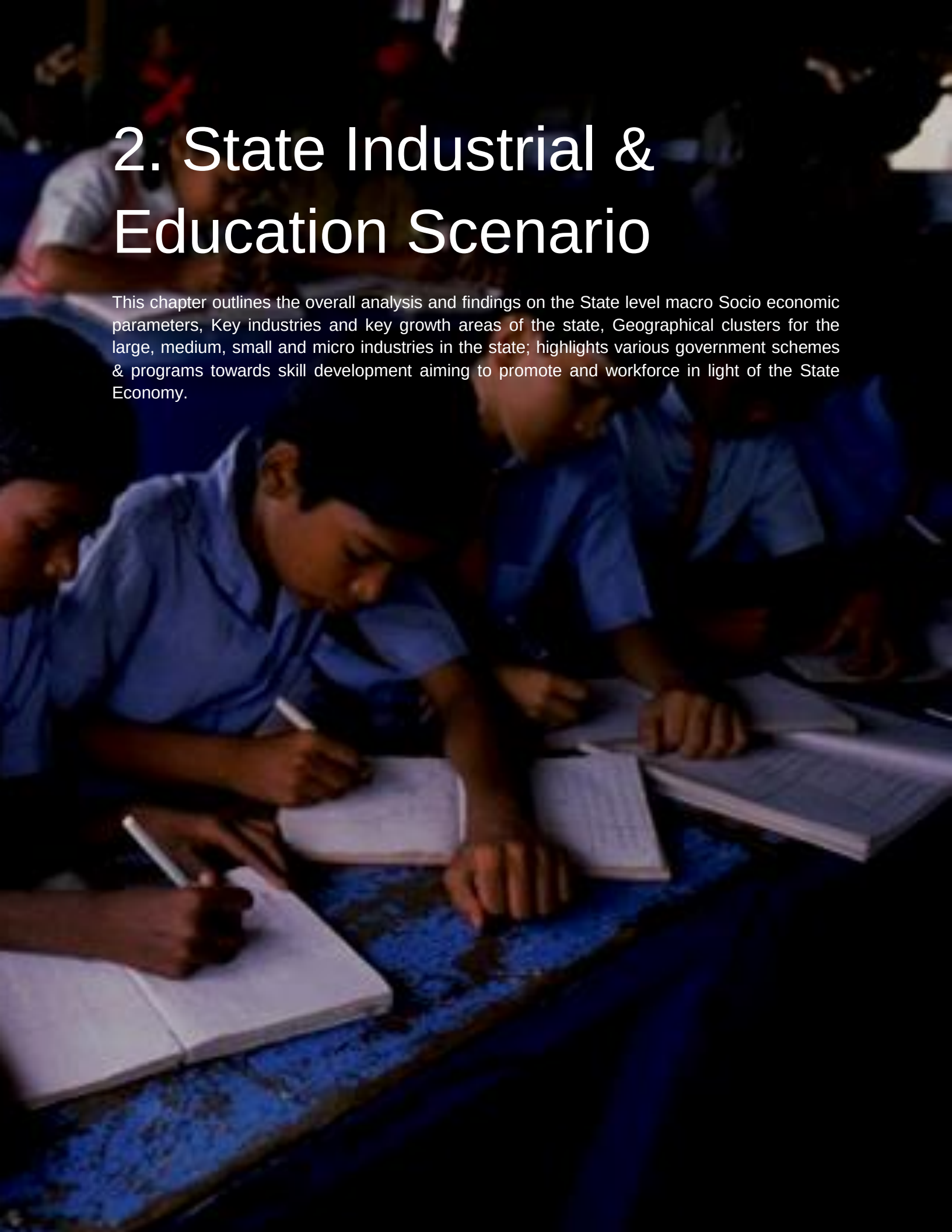
Each cluster had a field team, led by a cluster supervisor and supported by a team of three investigators. The field team members were recruited locally to ensure that they were familiar with local conditions and understand the local language. The study had been coordinated by one senior professional who was in charge of recruitment, orientation and training of the field teams for all districts. The supervisor was in charge of data quality control and timely completion of surveys in their respective clusters. The survey had expected to take 10 to 12 days for a five-district cluster.

1.3.5 Secondary data collection

Secondary data have been collected from project records, published reports (2011 Statistical Abstract report and district-wise handbook published by the Directorate of Economics & Statistics, Planning Commission Report, Annual Survey of Industries and Socio-Economic Survey Andhra Pradesh), discussions with project staff and other functionaries, consultations with stakeholders and group discussions.

2. State Industrial & Education Scenario

This chapter outlines the overall analysis and findings on the State level macro Socio economic parameters, Key industries and key growth areas of the state, Geographical clusters for the large, medium, small and micro industries in the state; highlights various government schemes & programs towards skill development aiming to promote and workforce in light of the State Economy.



Chapter 2: State Industrial & Educational Scenario

2.1 Andhra Pradesh

2.1.1 Demographic Profile

Andhra Pradesh is the fifth most populous state of India with more than 76 million people or 7.43 percent of the country's population. It is the fourth largest state in India. Spread over 2,75,045 square kilometers, it covers 8.37 percent of the total area of the country. Andhra Pradesh has easy access to the rest of the country. Because of its strategic location, the state is considered to be the gateway to Southeast Asia and Australia. The state has seven agro climatic zones and a variety of soil types, allowing it much diversity in agriculture. Hyderabad is the capital and the largest city of the state. Andhra Pradesh is divided into 23 districts, seven municipal corporations, 79 revenue divisions, 1,126 mandals or administrative units and 21,908 gram panchayats.

Table 4 Andhra Pradesh at a glance

Andhra Pradesh at glance			
	Units	**Provisional Census 2011**	**Census 2001**
Total Population	Lakhs	846.66	762.10
Total Population - Male	Lakhs	425.10	385.27
Total Population – Female	Lakhs	421.56	376.83
Sex ratio	Females per 1000 males	992	978
Population Growth	Percentage	11.10	14.59
Density of Population (Density/Area sq.Km)	Persons per sq. km	308	277
Rural Population	Lakhs	563.12	554.01
Urban Population	Lakhs	283.54	208.09
Average Literacy	Percentage	67.66	60.47
Male Literacy	Percentage	75.56	70.32
Female Literacy	Percentage	59.74	50.43
Worker – Total	Lakhs	N.A.	348.94
Workers – Agriculture	Lakhs	N.A.	216.92
Workers- Non Agriculture	Lakhs	N.A.	132.02

Andhra Pradesh is regarded as one of the most progressive states in India, after, Maharashtra. It is fast becoming one of the richest and most prosperous states in the country. The State is endowed with abundant natural and human resources, which give it a competitive advantage socioeconomically.

While the state has the second highest population among comparable states in analysis, it recorded the lowest population growth rate of 11.10 percent. The State has also recorded the second highest sex ratio of females per 1000 males in the country. Andhra Pradesh also recorded the second lowest population density among all Indian states, showing signs of population stabilization.

Andhra Pradesh has recorded the highest workforce participation, 6.69 percent more than the average state figure. However, the state's workforce is dominated by males—56.3 percent against 35.11 percent for females. Compared with the workforce population trends in other states such as, Maharashtra, Tamil Nadu and Odisha, Andhra Pradesh seems to offer better employment opportunities.

Poverty: According to the Planning Commission, the poverty ratio for the state in 2009–10 was 21.1 percent—22.8 percent for rural areas and 17.7 percent for urban areas. This compares well with 29.8 percent for the whole country—33.8 percent and 20.9 percent for rural and urban areas. Poverty levels in the state have been lower than the national average. The Planning Commission estimates show that poverty is going down at a faster pace in Andhra Pradesh compared with the rest of India.

Unemployment: The unemployment rate in Andhra Pradesh, both in the rural and urban areas, increased between 1993–94 and 1999–2000. However, it declined in the period 1999–2000 to 2004–05. The rural unemployment rate increased 5 points from 7 in 2004–05 to 12 in 2009–10. During the same period, the urban unemployment rate decreased by 5 points from 36 to 31. At the all-India level, the urban unemployment rate fell sharply 11 points from 45 to 34; the rural unemployment rate declined marginally by 1 point from 17 to 16.

Health: Andhra Pradesh has 1,624 primary health centers, 281 community health centers, 58 area hospitals, 17 district hospitals, 12,522 subcenters and 267 urban health centers. There are 233 hospitals with 16,114 beds under the Andhra Pradesh Vaidya Vidhana Parishad (APVVP), which manages secondary-level hospitals in the state.

2.1.2 State of Education

According to the provisional data of Census 2011; the literacy rate of the state is 67.7 per cent with male literacy rate at 75.6 per cent and the female literacy rate at 59.7 per cent. In 2010-11, a total of 13.31 million students were enrolled in 101,204 schools. There were 66,834 primary schools, 15,421 upper primary schools, 18,776 high schools and 173 higher secondary schools. The total numbers of teachers were 476,555. In 2011-12, the total number of students enrolled in engineering and management colleges were 304,200 and 86,905, respectively.

Steps are being taken in the state for ensuring 100 percent access to education. As per the Socio Economic Survey 2011-12, enrolment in all types of schools in the state during 2011-12 was 133.91 Lakh out of which 4.10 Lakh were in Pre-primary; 70.84 Lakh in I –V classes; 26.06 Lakh in VI&VII classes, 32.67 Lakh in VIII-X classes and 0.23 Lakh in XI &XII classes. But retention of students in the school is still an issue that needs to be addressed. During 2011-12, dropouts at I-V classes (Primary Level) were 15.60% 20.79% at I-VII (Upper Primary Level) and

45.71% at I-X (Secondary Level). Necessary measures have been taken to retain children into schools.

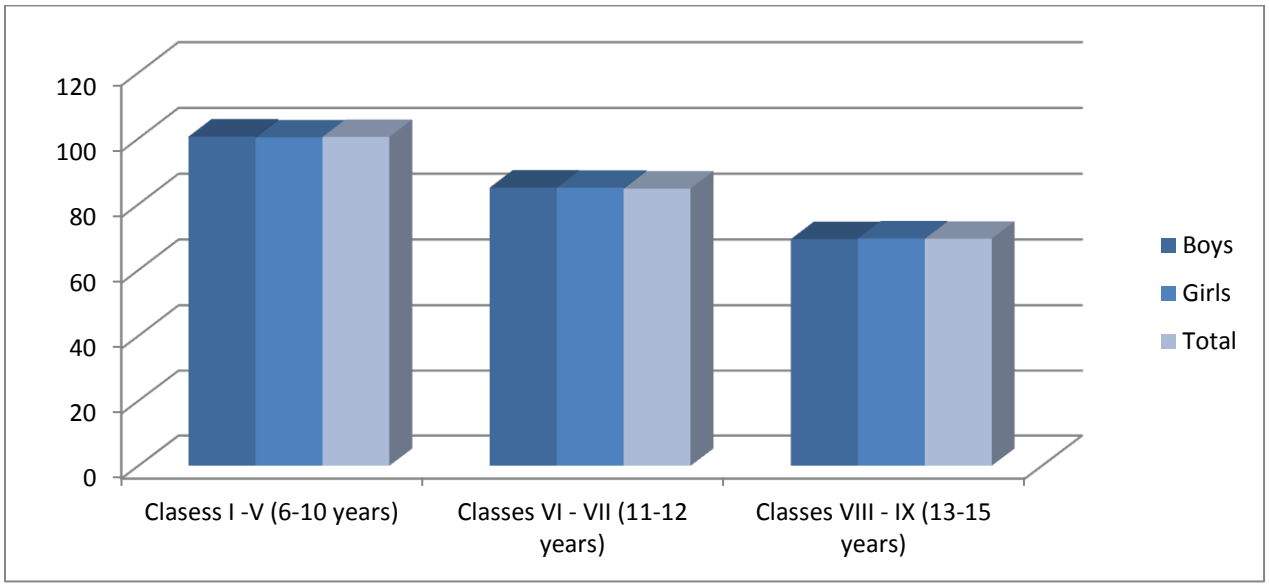


Figure 3 Gross enrolment ratio in Andhra Pradesh, Statistical Survey 2011

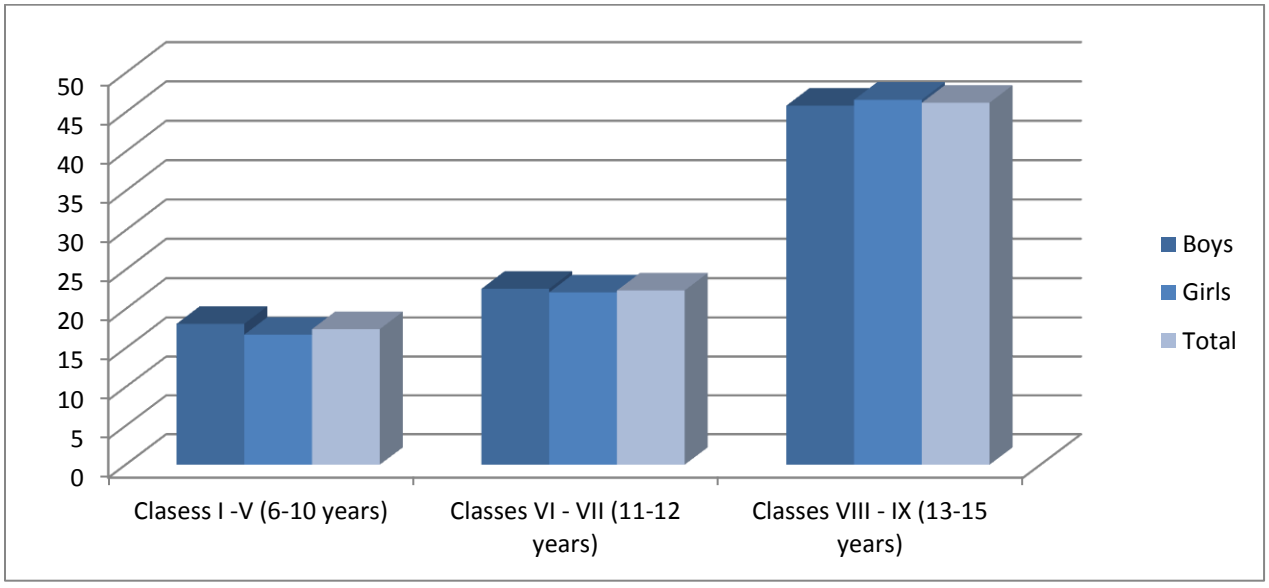


Figure 4 Dropout ratio in Andhra Pradesh, Statistical Survey 2011

The state has also taken various initiatives to improve higher education. The University of Hyderabad and the Osmania University are among the leading universities of the country. At the intermediate college level, courses are available in the science, arts and commerce streams. Vocational courses are offered in the fields of agriculture, engineering and technology, home science, paramedical, business and commerce, and humanities. In 2011-12, there were 5,202 junior colleges with a total enrolment of 0.87 million students. The Department of

Table 5 Professional Colleges and intake of students, Socio Economic Survey 2012

Technical Education, Government of Andhra Pradesh supports 707 engineering colleges.

Course	No. of Institutions	Intake
Engineering	707	3,35,00
MCA	644	46,795
MBA	926	86905
B. Pharmacy	290	29520
Polytechnics	263	76,000
D. Pharmacy	47	2,560

2.1.3 Economic Profile

The economy of Andhra Pradesh registered a CAGR of 14 percent at constant prices 2004-2005. The state's economy, in terms of GSDP, is primarily driven by the service sector. There has been a huge development on the industrial front, with the IT sector acting as a growth engine and making the highest contribution to the gross state domestic product (GSDP). Between March 2004 and March 2012, the state saw an average annual GSDP growth of 16 percent as shown in Figure 5.

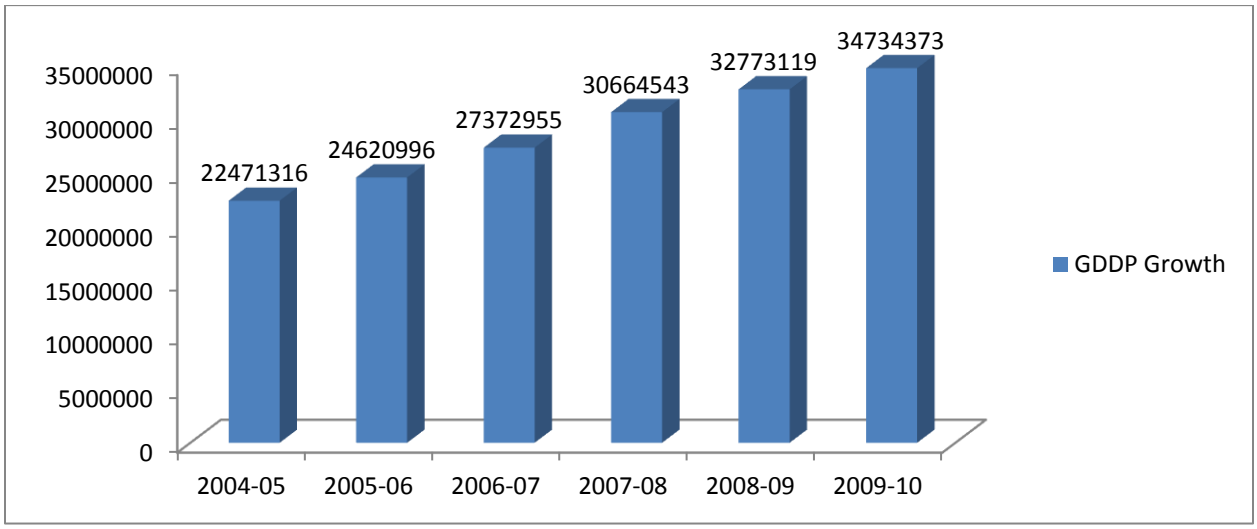


Figure 5 GDDP of Andhra Pradesh at constant prices, Statistical Survey 2011

The district wise split GDP shows that Hyderabad's GDP is higher than other districts in the state owing to the presence of services sector. The top five districts of the state in terms of GDP are Hyderabad, Rangareddy, Vishakhapatnam, East Godavari and Krishna.

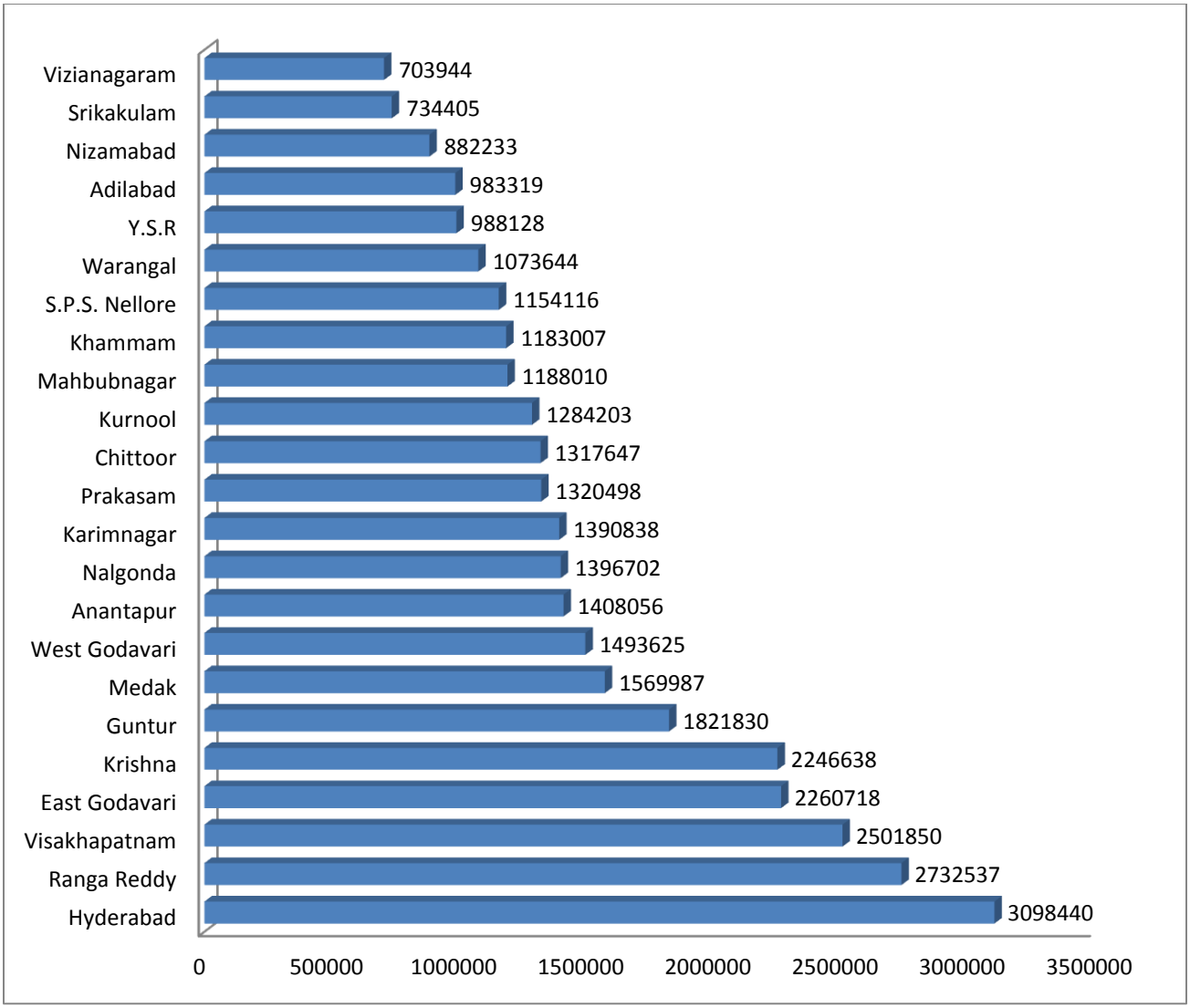


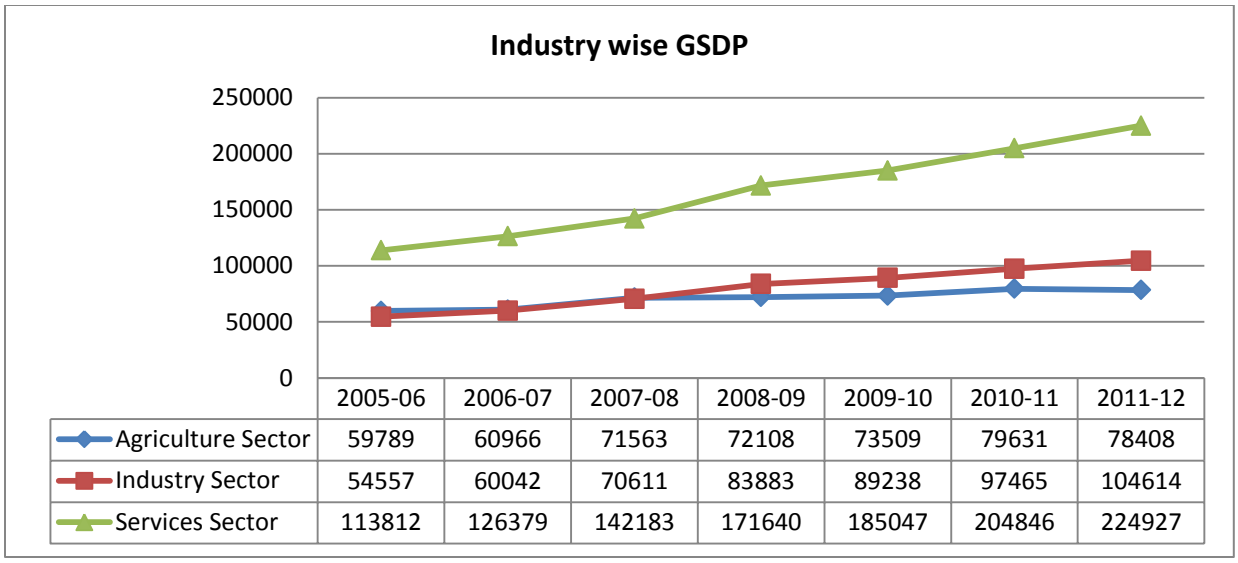
Figure 6 District wise GDDP of Andhra Pradesh in 2009-10. Source: Statistical Abstract of A.P 2011

With the help of well drafted sector specific policies, the state has witnessed high investments in last few years. As per Economic survey 2012-13, the investments in the state has grown from INR 868 in 2000-01 to INR 6861 in 2012-13, an impressive increase of 690 percent over the given period.

Table 6 Industries in large, medium and small scale industries, Source: Economic Survey 2012-13

Year	Large Industrial Proposals established		Micro, Small and Medium Industries established		Total
	Proposals gone into production (No.)	**Investment**	**Units**	**Investment**	**Investment**
		(Rs. Crore)	**(Nos.)**	**(Rs. Crore)**	**(Rs. Crore)**
2000-01	63	541	2124	327	868
2001-02	105	2240	1612	261	2501
2002-03	65	1181	1641	235	1416
2003-04	50	404	1573	204	608
2004-05	68	1831	1632	266	2097
2005-06	81	1550	1267	245	1795
2006-07	194	5516	2440	886	6402
2007-08	172	6321	4209	2161	8482
2008-09	135	5680	4599	2628	8308
2009-10	74	11610	5101	4423	16033
2010-11	95	9403	8507	4905	14308
2011-12	75	8707	8464	4881	13588
2012-13 (up to Aug 2012)	18	5307	2859	1554	6861

The figure below shows sector wise contribution to state GSDP from 2005-06 till 2011-12 in Andhra Pradesh. Clearly, service sector has emerged as the greatest contributor to State GDDP over the rise. Agriculture sector, although still employing the largest share of workforce, contributes minimum to the GSDP.



	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
Agriculture Sector	59789	60966	71563	72108	73509	79631	78408
Industry Sector	54557	60042	70611	83883	89238	97465	104614
Services Sector	113812	126379	142183	171640	185047	204846	224927

Figure 7 Industry wise GSDP of Andhra Pradesh. Source: Statistical Abstract of Andhra Pradesh 2011

2.1.4 Agriculture

Andhra Pradesh is endowed with many natural resources like fertile soil, perennial rivers, rich mineral deposits, good human resources, and a climate congenial for agriculture. The state is a leading producer of paddy and other crops like tobacco, cotton, sugarcane, pulses, fruits and vegetables etc. Major fruits produced are Mangoes, grapes, pineapple, banana and guava. Apart from these, the state also produces spices like chilies, turmeric, ginger, coriander, etc. The state's share in rice production in the country is 12.75%, (2005-06 data) share in maize production is 20.99% , Ground nut is 17%, Mesta is 53%, tobacco is 36% and turmeric is 61%.

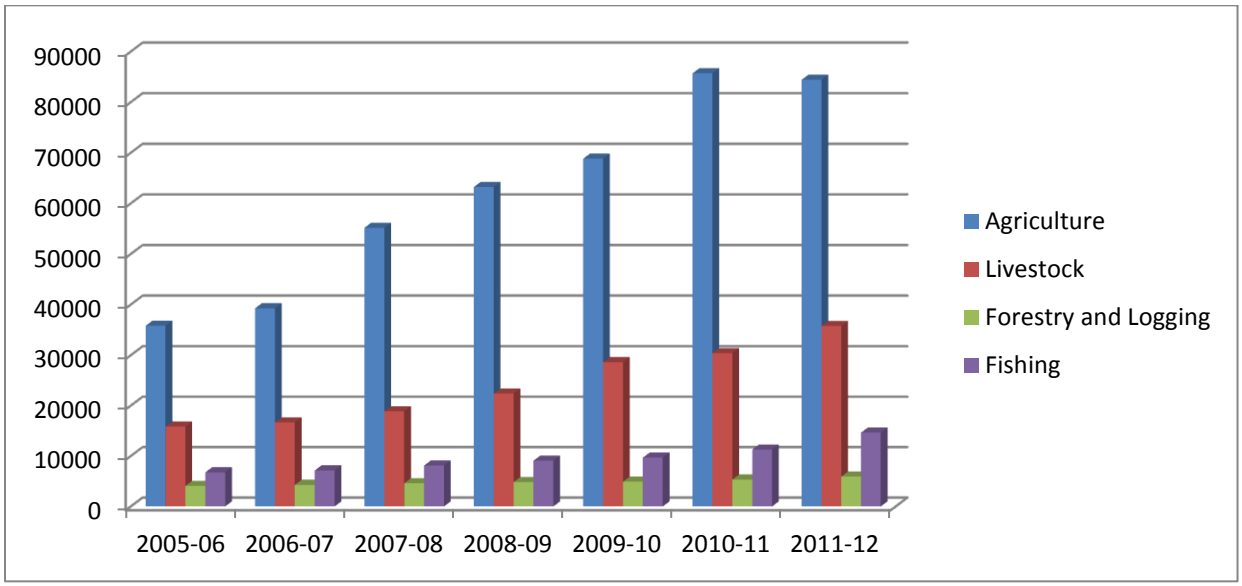


Figure 8 GSDP contribution of agriculture sector in Andhra Pradesh, Statistical Survey 2011

Forest resources: Andhra Pradesh has a total forest cover of 23%of the total geographical area of the state. Around 45% of the cover falls in the Telangana region, while around 30% falls in the coastal region and 25% in Rayalaseema region.The major forest produces in the State are Timber, fire wood & charcoal, Minor forest produce include bamboo, beedi leaves, soapnuts, red sanders wood etc. Plantation products like cashew, teak and coffee are also grown.

Livestock and Poultry: Andhra Pradesh has 20.56% of the countries poultry population. It is also the leading producer of poultry and eggs. It contributes to around 33% of eggs and 18 % of broiler meat in the country. The State has a rich livestock population, and is a major producer of hides and skins (10% of the country's total production. Having a long coastline, Andhra Pradesh is also a leading producer of marine food products.

2.1.5 Industrial Sector

The pace of industrial growth in the State has quickened in the recent years and almost all the sub-sectors of the Industry sector including manufacturing have shown considerable dynamism. As indicated in the figure below, the industrial sector has seen a growth of 8 percent, primarily due to the construction and manufacturing sector.

In 2011-12, manufacturing sector comprised of 48 percent of the industrial sector followed by construction (33%) and electricity, gas and water supply (19%).

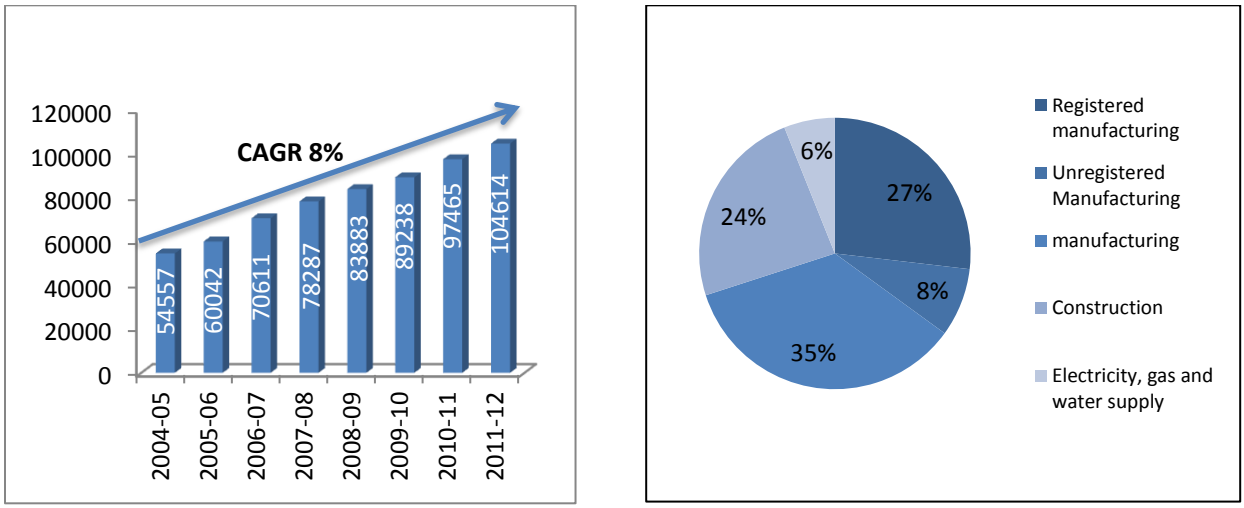


Figure 9 Industrial sector GSDP (Rs Lakhs), 2004-05 to 2011-12 and Industrial Sector Contribution 2011-12

The State has attracted considerable amount of investments after introduction of Industrial Investment Promotion Policy, 2010-2015. Following tables give brief snapshot of new investments announced in various manufacturing and service based industry in past three years till 2012-13.

Table 7 New Investments announced in manufacturing sector. Source: CMIE

Industries (Investment :INR million)	2010-11	2011-12	2012-13
Manufacturing	298266.3	831447.5	210835.9
Textiles	8548.1	1460	0
Metal & metal products	34067.9	34087.5	80400
Machinery	18169	117200	8850
Transport Equipment	36660	0	5877.9
Misc Manufacturing	34737.6	25250	0
Hotels & tourism	2776.6	810	1155
Wholesale & retail trading	23900	1536	5000

2.1.6 Services Sector

Services sector has been a major contributor to the State's GSDP, contributing over 50 percent to the GSDP over the years since 2004-05 till 2011-12. The sector has witnessed a CAGR of 9 percent from 2004-05 to 2011-12. In 2011-12, trade, hotels and restaurants comprised 25 percent of the services sector followed by real estate (22%), Banking & Insurance (14%), Transport & Storage (11%), communication (6%) and other services.

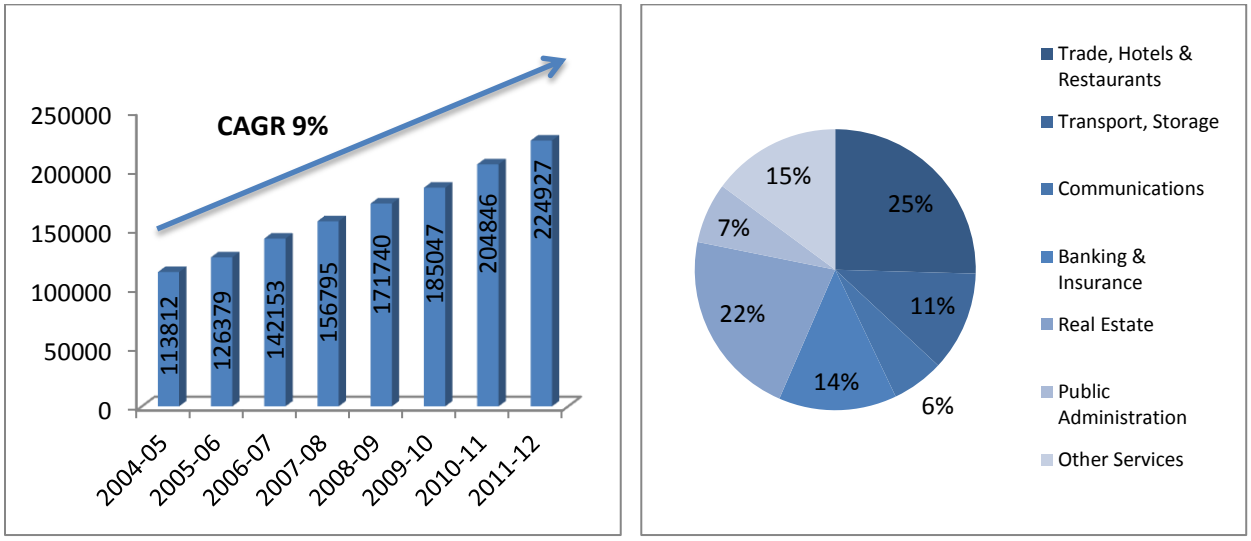


Figure 10 Services sector GSDP (Rs Lakhs), 2004-05 to 2011-12 and Sector Contribution 2011-12

Table 8 New Investments announced in services sector. Source: CMIE

Industries	2010-11		2011-12		2012-13	
	Investment (INR million)	No of Projects	Investment (INR million)	No of Projects	Investment (INR million)	No of Projects
Hotels & tourism	2776.6	33	810	13	1155	5
Wholesale & retail trading	23900	16	1536	5	5000	5
Transport Services	30354.2	36	435076.4	42	7686.1	8
Communication Services	2500	2	0	0	6000	1
Information Technology	0	4	250	4	0	7
Misc Services	40193.7	48	44543.1	41	17960.1	23
Health Services	3668.8	5	11620	9	3900	7
Recreational Services	816.7	10	23755.5	15	6500	6
Construction & real estate	207468	30	89072.7	56	9750	21

2.1.7 Important sectors in the State:

2.1.7.1. Construction

With the pace of industrial growth, construction sector too in India has seen tremendous growth in past years, contributing at an average of 9 percent to the GDP growth in the country. Construction sector is second largest employer in the state of Andhra Pradesh and expected to continuously employ large manpower in future. Construction sector grew with a CAGR of 11 percent in the state from 2004-05 till 2011-12 and had contributed 8.46 percent to the State GDDP in 2011-12.

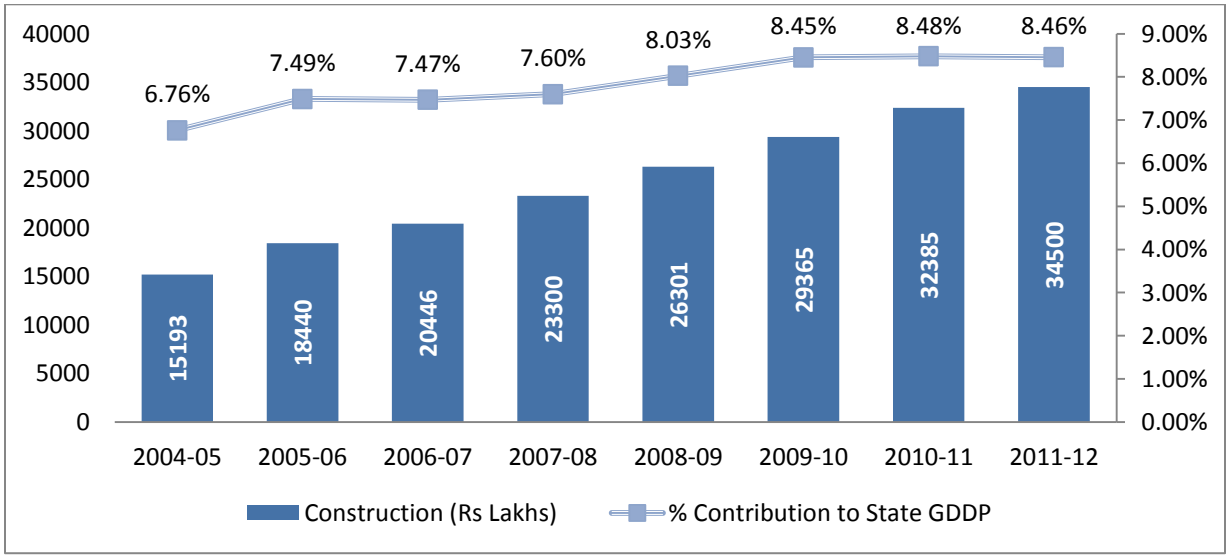


Figure 11 Contribution of Construction Sector, 2004-05 till 2011-12

The state has seen considerable growth in construction sector owing various PPP projects by the state such as hi-tech city developed in Hyderabad, airport construction, JN Pharmacity, IT

parks, Mindspace, and other industrial parks. The state has highest number of SEZs in the country. The state with 272 industrial estates ranks second in the country. Andhra Pradesh Industrial Infrastructure Corporation (APIIC) is a pioneer in promoting and developing industrial estates and industrial development areas. The corporation has entered into successful PPP to give a boost to State's infrastructure sector.

According the draft Approach Paper to XII five year plan, the state will focus on building infrastructure to boost inter and intra state connectivity. The period should witnedd growth in PPP projects for setting up new industrial parks, building of roads, railway lines and ports to boost connectivity and balanced infrastructure development to Tier II &II cities.

2.1.7.2 Trade, Hotels & Restaurants

The trade, hotels and restaurants contributed INR 57,577 lakhs to the State GDDP in 2011-12. It has shown a CAGR of 8.20 percent from 2004-05 till 2011-12. The sector contributes 25 percent to the services sector.

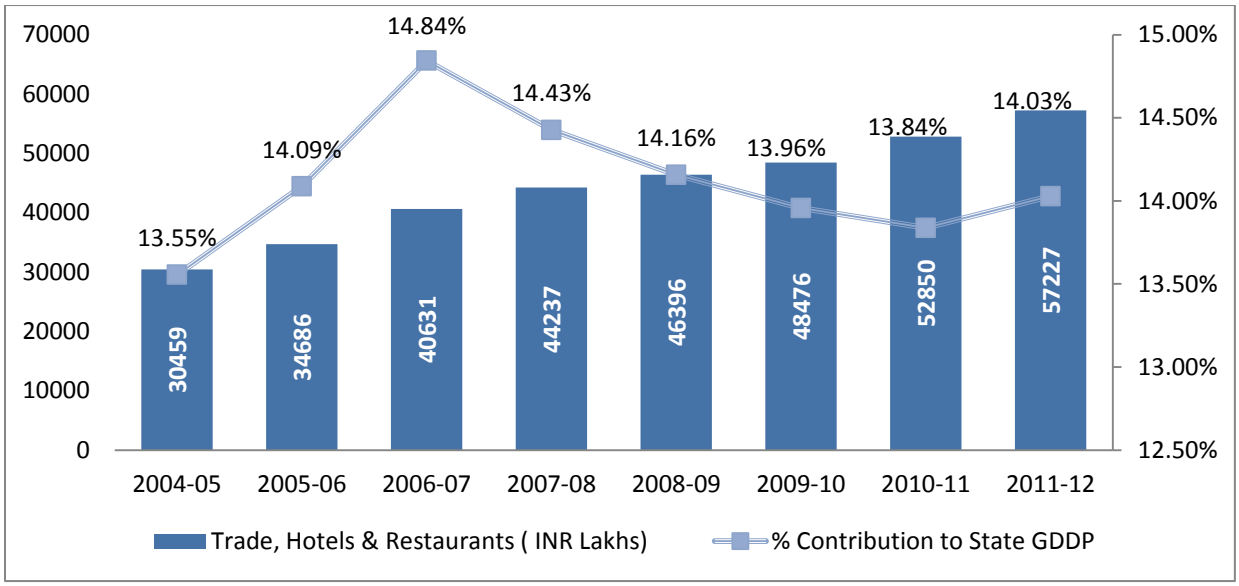


Figure 12 Contribution of Trade, hotels and restaurants, 2004-2005 to 2011-12

Andhra Pradesh is known for its pristine beaches, important places of worship, lush green forests, spicy cuisine and the hospitality of its people. The state has more than 7 million visitors every year.The state has several tourist attractions such as the Charminar, Golconda Fort, Araku Valley, Borra Caves and Ramoji Film City. The Tirupati Balaji temple and the Puttaparthi Sai Baba temple attract devotees from across the country and the world. The state ranked thirteenth in international tourist arrival among the states in India, and accounted for 1.4 percent of the total international tourists who visited India in 2011. It was the second most popular destination among domestic tourists, receiving 18 percent of the total domestic travelers.

The Ministry of Tourism sanctioned 40 projects, amounting to US$42.53 million, for the state during the Eleventh Five Year Plan (2007–12). The state government has identified Hyderabad, Visakhapatnam, Tirupati, Vijayawada, Nagarjunasagar and Warangal for tourism projects.

Some of the upcoming projects are Kadapa Heritage Circuit, Tirupati Heritage Circuit, Charminar Area and Buddhavanam Project at Nagarjuna Sagar.

"Medical Tourism" is also picking up in the State especially in the city of Hyderabad. Owing to the presence of well qualified staff, cheaper hospitalization costs, connectivity and large number and range of hotels, the sector is witnessing huge growth.

2.1.7.3 Banking & Financial Services Insurance (BFSI)

The BFSI sector has grown at approx. 14.9 percent from 2004-05 till 20011-12. The sector contributed 11 percent to the tertiary sector DDP in 2011-12.

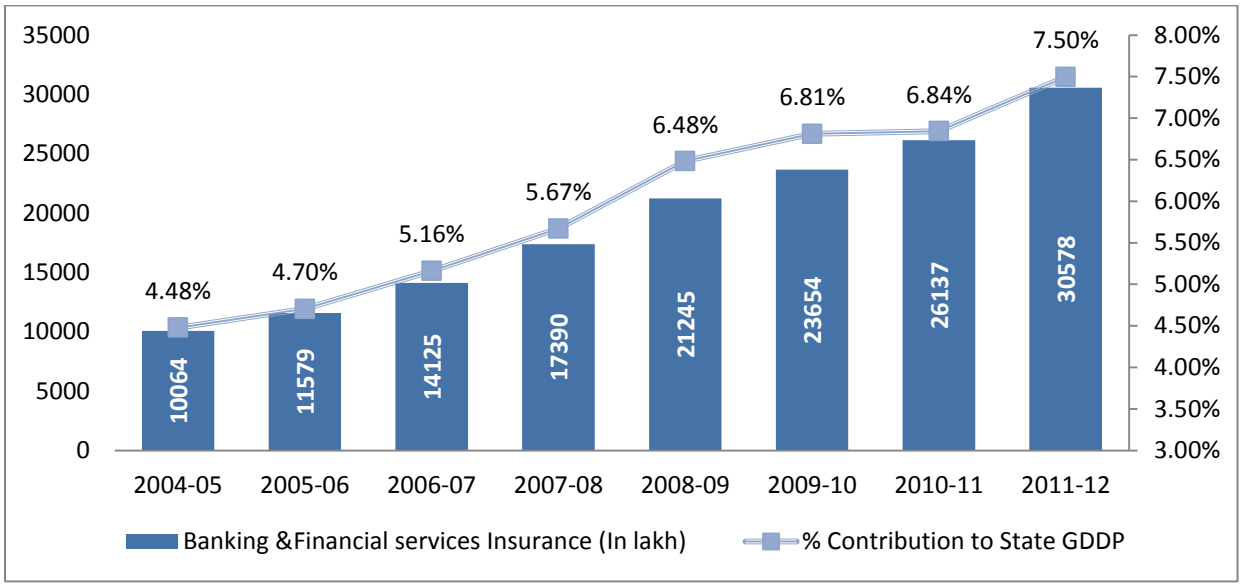


Figure 13 Contribution of Banking & Financial Services Insurance (in lakh) from 2004-05 till 2011-12

2.1.7.4 Biotechnology

Andhra Pradesh is the leading center for Biotechnology and is known as Vaccine Capital of India. The Biotech industry is Andhra Pradesh accounts for 43% of the total biotech revenue generated by companies in South India (US $1104 million). The State capital Hyderabad is attracting bio tech companies around the world by hosting International Bio events such as Bio Asia. The presence of a large number of corporate and government hospitals in Hyderabad and facilities for healthcare education and research also facilitates clinical trials of biotech products. Several global and Indian Biotechnological companies such as like Dupont, Alexandria, US Pharmacopea etc. have already set up their bases in Andhra Pradesh.

2.1.7.5 Chemical & Pharmaceuticals

Andhra Pradesh is the hub of the bulk-drugs industry, accounting for one-third of the national production of bulk drugs and 40 percent of country's bulk drug export. The state ranks first in the manufacturing of bulk drugs and third in formulations in India. The state produces a majority of the 500 basic drugs produced in the country.

The state government helped to develop the pharmaceutical and biotechnology industry via specific policies, promoting a knowledge-based cluster approach with financial incentives and appropriate infrastructure support. Jawaharlal Nehru Pharma City which was set up in Visakhapatnam is an integrated industrial park for bulk drug manufacturers, pharmaceutical companies and fine chemical manufacturers. The industrial park is spread over an area of 2,143 acres; of this, 611.37 acres has been notified as a pharmaceutical SEZ industrial park.

2.1.7.6 IT and ITeS

The State has emerged as a leading player in IT/IES sector with the help of right policies. The share of IT exports from Andhra Pradesh accounts for around 12.4 per cent of national IT exports. The IT sector contributes about 39.0 per cent to total exports from all sectors in the state. In 2012, the state government unveiled the Electronics Hardware (EH) policy, 2012-17, which aims at providing incentives in the areas of industrial electronics, communication and broadcast equipment, computers and peripherals and strategic electronics and components. The IT industry recorded a turnover of US$ 11.1 billion over 2011-12. Of this, exports accounted for 76 per cent and the remaining 24 per cent was generated from the domestic market.

2.1.7.7 Mines and Minerals

Andhra Pradesh contributed about 7.0 per cent to the country's mineral value production during 2011-12. The state's mineral production was estimated at US$ 3.1 billion over 2011-12. Andhra Pradesh has the highest deposits of barytes, limestone and beach sand heavy minerals in the country. The Government of India has started exploration of sizable uranium deposits in Kadapa and Nalgonda districts in Andhra Pradesh through M/s. Uranium Corporation India Ltd, a public sector undertaking.

2.1.7.8 Gems & Jewelry

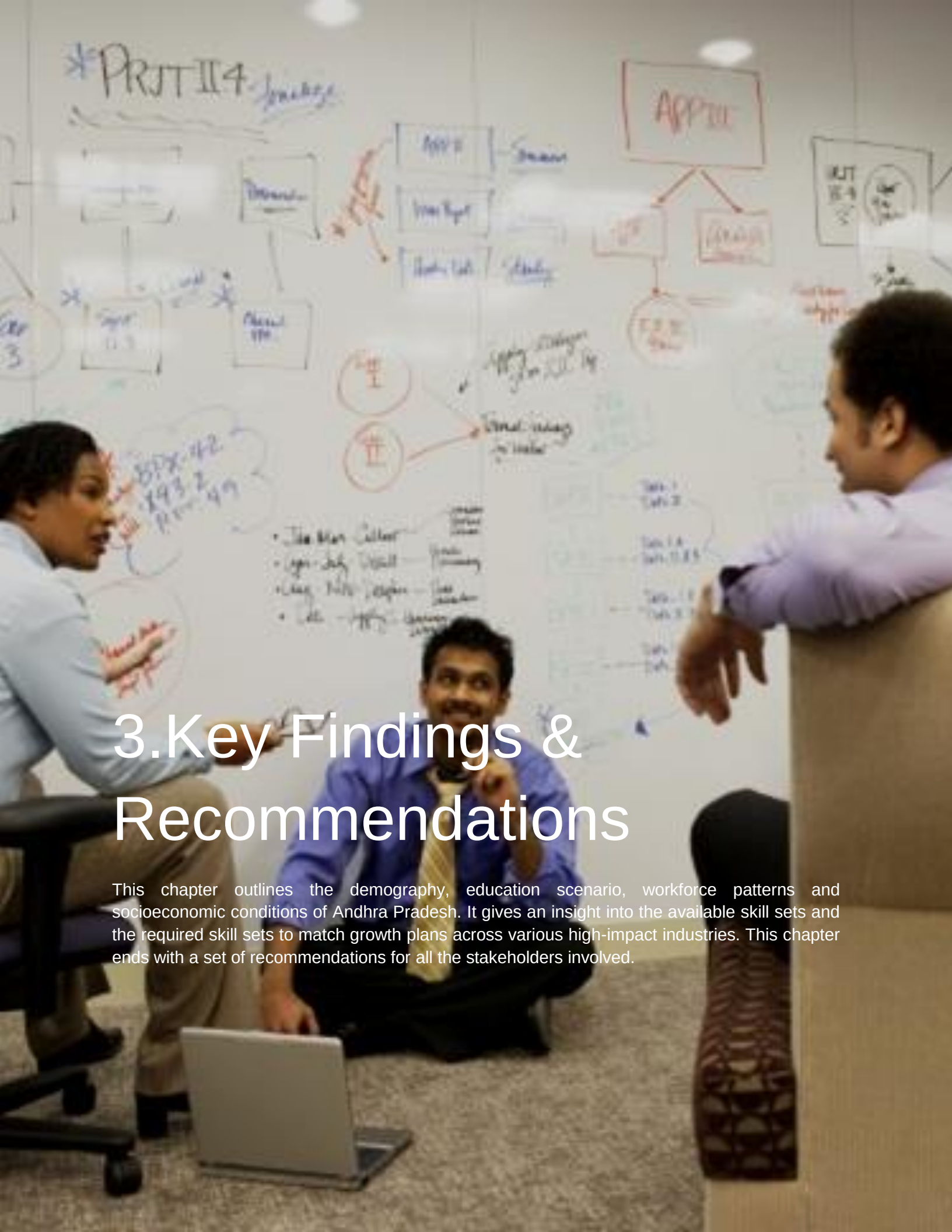
Hyderabad is one of the leading hubs for the jewelry sector in India. The state produces a wide array of precious and semi-gems as well as pearls. The state also aims to become leading player in imitation jewelry. The state has an estimated reserve of 12.10 million tonnes of gold ore and 1.82 million carats of diamond. In the state, diamond is mostly found at Cuddapah, Anantapur, Bellary, Kurnool, Kishna, Godavari and Guntur districts. Andhra Pradesh Gems and Jewellery Park, a joint venture between the IOI Corporation and Andhra Pradesh State Trading Corporation, has been developed as a state-of-the-art facility, as a commercial park for jewelers and pearl dealers.

2.1.7.9 Food Processing

The agriculture sector contributed 19 percent to the GDDP in 2011-12. The state is one of the largest producer of rice and leading producer of cash crops such as fruits, vegetables, spices, tobacco etc. The agro- climatic conditions in the state make it conducive for growing variety of horticulture crops as well. The sector has witnessed an investment of approx. INR 5000 crore

and has high contribution to the state total industrial production.[1] The State is pioneer in oil palm production, sheep production, mango, chillies, turmeric, egg, brackish water shrimp and fresh water prawn production.

1 Source: Report: Doing business with Andhra Pradesh, Commisionerate of Industries



3.Key Findings & Recommendations

This chapter outlines the demography, education scenario, workforce patterns and socioeconomic conditions of Andhra Pradesh. It gives an insight into the available skill sets and the required skill sets to match growth plans across various high-impact industries. This chapter ends with a set of recommendations for all the stakeholders involved.

Chapter 3: Key Findings & Recommendation

3.1 Workforce Requirement

The human resources requirement was estimated on the basis of the following parameters: historical growth rate of the industry; employment pattern; change in industry productivity; technology changes; change in customer preference; and changes in Government policy. Simultaneously, the availability of human resources was calculated on the basis of the following parameters: current education infrastructure of the ITIs, polytechnics, engineering colleges and arts & science colleges; students pass-out; and employability of human resources. In the demand section of the industries the regression model was used to calculate the overall estimate across major sectors and in supply side the workforce participation along with working population growth were factored in to get the supply of resources over a stipulated period of time. It's for the reader's information that the cumulating of district workforce across sectors was not followed to get the gaps.

It is estimated that Andhra Pradesh will face an incremental manpower requirement of approximately 1.10 crore workers from 2012 till 2022, across high-priority sectors and emerging sectors. Largest employing sectors will be construction, hospitality, banking and insurance, real estate and IT/ITES. Table below classifies manpower requirements into skilled, semi-skilled and minimally skilled brackets.

Table 9 Sector wise incremental workforce requirements by 2022

Industry	2012-2017			2017-2022		
	Skilled	Semi Skilled	Minimally skilled	Skilled	Semi Skilled	Minimally skilled
Agriculture & Allied Activities	27174	135869	516304	-43671	-218353	-829741
Mining & Quarrying	43024	-1356	40237	24864	19536	26640
Construction	813170	996003	686462	806854	864486	1290966
Tourism, Travel & Hospitality	1695005	-223513	-308969	582497	262124	174749
Transportation, Logistics, Warehousing & Packaging	128843	65637	21879	122803	62560	20853
IT & ITES Sector	249323	26101	4758	258434	27055	4932
Banking & Financial Services Insurance	504792	61062	13769	390280	175626	117084
Real estate	118867	160999	24445	72667	77858	116268
Other Services	263940	-199304	-181260	-140278	-64710	-38611
Electricity, gas & water supply	4036	2200	1837	4036	2422	1615

Food processing*	28575	-163	28738	28575	17145	11430
Chemicals & Pharmaceuticals*	62976	33730	29247	62976	37786	25191
Coke, refined petroleum and nuclear fuel*	11351	6383	4968	11351	6811	4541
Rubber and plastic products*	37201	20589	16612	37201	22321	14881
Auto & Auto components*	38400	19875	18525	41839	25103	16736
Metals & non metallic products*	29238	12802	16435	29238	17543	11695
Textile & leather*	71070	37158	33912	71070	42642	28428
Wood & Paper products*	14100	6938	7162	14100	8460	5640
Total	4141086	1161009	975063	2374837	1386414	1003295

Some of the key trends observed on the demand side include:

1. Looking at the current urbanization and infrastructure development trend in the State, building and construction is expected to generate approx. 49 percent of the incremental demand in the district. Real estate will generate 5 percent of the total incremental demand.

2. Other sector with high share of incremental demand is tourism, trade and hospitality. The sector constitutes 20 percent of the total incremental demand.

3. Under manufacturing sector, manufacture of coke, petroleum and nuclear fuel is expected to witness highest incremental demand growth (approx. 157 percent) followed by manufacture of rubber and plastics (demand growth ~127 percent) and manufacturing of chemicals and pharmaceuticals (demand growth ~92 percent).

4. Though currently witnessing a slowdown in growth, Auto and auto components will require ~1.6 lakh trained workforce in various trades till 2021-22.

5. The demand for workforce in agriculture & allied industries is expected to witness a negative growth. It is expected that large number of manpower will migrate from this sector to other industrial sectors.

3.1.1 District wise manpower requirement

Districts with the largest manpower requirements by 2022 will be Mahbubnagar, Guntur and Nalgonda.

Mahbubnagar: Mahabubnagar is the largest district in Telangana region of Andhra Pradesh. The district has second highest workforce participation rate but extremely low literacy rate at

56.06%. The district is industrially backward. However, Mahabubnagar district with proximity of International
Air Port at Shamshabad enhances the prospects for establishment of Export Oriented Units in the District. Industry in this district contributes to a total of 3.42% of the GDDP at constant prices from (2004-05) to (2009-10).

Guntur: Guntur is an important industrial and commercial center and the third largest district in Andhra Pradesh. The district is known for commercial crops like cotton, chilies and tobacco. It is one of the major producers of chilies, cotton and spices in the state. It is also known for its cement industries. Industry in this district has contributed a considerable 5.24 percent to the state GDP at constant prices from 2004-05 to 2009-10. The district has a prominence of secondary and tertiary sectors. There is also huge potential for growth of the agro-food industry, travel and tourism, and services.

Ranga Reddy: The district surrounds the state capital of Hyderabad, thus it is very well industrially developed. The district has well developed infrastructure, communication network, transport, market and human capital. The district has large corporate setup and many industrial parks. An Apparel Park has been established in Gundlapochampally village which is 25 kms from the state capital is also in the District.

Kurnool: Kurnool district is one of prominent district in the state. It accounts for 4.78 percent of the state population. The district has witnessed rapid urbanization. The proportion of the urban population to the total population in the district was 28.26 percent in 2011 compared to 23.16 percent in 2001. The district's Gross district domestic product (GDDP) has grown at the growth rate (CAGR) of 8.22 percent from 2004-05 till 2009-10. The contribution of the primary sector has grown steadily at a CAGR of approx. 6 percent, tertiary sector grew (CAGR) by 8.13 percent and secondary sector witnessed highest growth rate (CAGR) of approx. 12.71 percent from 2004-2005 till 2009-10. According to Andhra Pradesh Industrial Infrastructure Corporation, Kurnool district has seven industrial areas with around 22,500 units. Industries in the district include oil mills, textile mills, stone polishing units, cement plants, and chemical factories. MSE units may benefit from the backward and forward linkages that these units provide. There is also scope to manufacture the spares and components that these industries need. These range from essential parts like bearings and bolts to abrasive materials, grinders, industrial gloves, and effluent treatment plants.

The table below indicates, skill wise incremental manpower requirements at district level for the state of Andhra Pradesh from 2012 till 2022

Table 10 District wise incremental workforce requirement for the years 2012-17 & 2017-22

Incremental workforce requirement (in 000s)	2012-17			2027-22		
	Skilled	Semi Skilled	Minimally Skilled	Skilled	Semi - Skilled	Minimally Skilled
Srikakulam	99	15	-28	58	19	-34
Vizianagaram	129	39	19	87	41	-3
Vishakhapatnam	372	109	37	232	157	124
East Godavari	245	-48	-323	121	-24	-329
West Godavari	169	43	62	89	48	13
Krishna	217	32	-94	126	70	26
Guntur	179	101	266	92	117	288
Prakasam	134	76	160	74	79	166
Nellore	166	81	146	112	84	147
Chittoor	178	32	-54	108	37	-69
Cuddapah	125	60	134	71	75	171
Anantapur	147	37	35	71	35	-3
Kurnool	138	45	63	70	39	22
Mahbubnagar	140	181	557	87	205	664
Rangareddy	326	-3	-316	180	-12	-394
Hyderabad	298	51	-188	168	49	-142
Medak	219	33	-21	132	43	-69
Nizamabad	124	23	28	78	33	-6
Adilabad	119	5	-57	63	6	-96
Karimnagar	189	122	365	116	155	432
Warangal	120	40	54	65	39	34
Khammam	157	24	-4	93	30	-44
Nalgonda	152	61	134	84	60	106
Andhra Pradesh	4141	1161	975	2375	1386	1003

3.2 Workforce Availability

Of the current workforce in Andhra Pradesh, it is estimated that ~86% of the total workforce remains minimally skilled. The table below displays districts with highest manpower availability at different skill levels.

Table 11 Workforce availability at districts by different skill level for 2012-17 and 2012-22

Incremental workforce availability (in 000s)	2012-17			2017-22		
	Skilled	Semi - Skilled	Minimally Skilled	Skilled	Semi - Skilled	Minimally Skilled
Srikakulam	7	11	92	2	10	78
Vizianagaram	8	8	128	4	13	123
Visakhapatnam	11	8	114	4	15	95
East Godavari	12	10	158	6	17	150
West Godavari	10	8	118	5	13	111
Krishna	16	12	133	7	20	124
Guntur	18	13	197	8	23	186
Prakasam	11	9	168	6	16	160
S.P.S.Nellore	9	7	95	4	11	85
Chittoor	15	11	139	7	19	130
Y.S.R.	8	7	111	4	12	104
Anantapur	13	12	205	7	20	201
Kurnool	14	13	238	7	22	234
Mahbubnagar	13	13	246	6	23	234
Ranga Reddy	28	14	127	10	24	111
Hyderabad	13	10	88	7	17	87
Medak	10	9	140	4	15	130
Nizamabad	8	7	111	3	13	99
Adilabad	7	7	121	3	13	113
Karimnagar	12	9	125	4	17	106
Warangal	15	11	145	6	19	134
Khammam	11	9	132	6	15	129
Nalgonda	14	11	155	6	18	145
Andhra Pradesh	285	225	3287	125	382	3067

3.3 Incremental Demand – Supply Workforce Gap

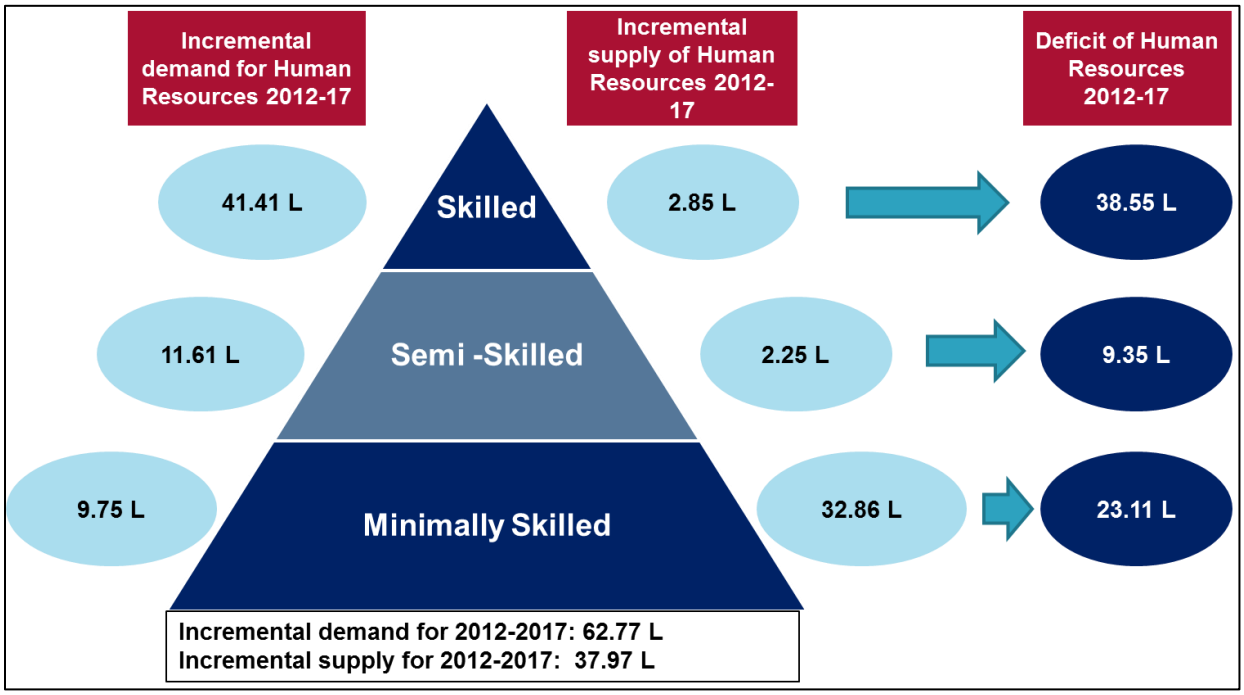


Figure 14 Incremental demand supply gap 2012-2017

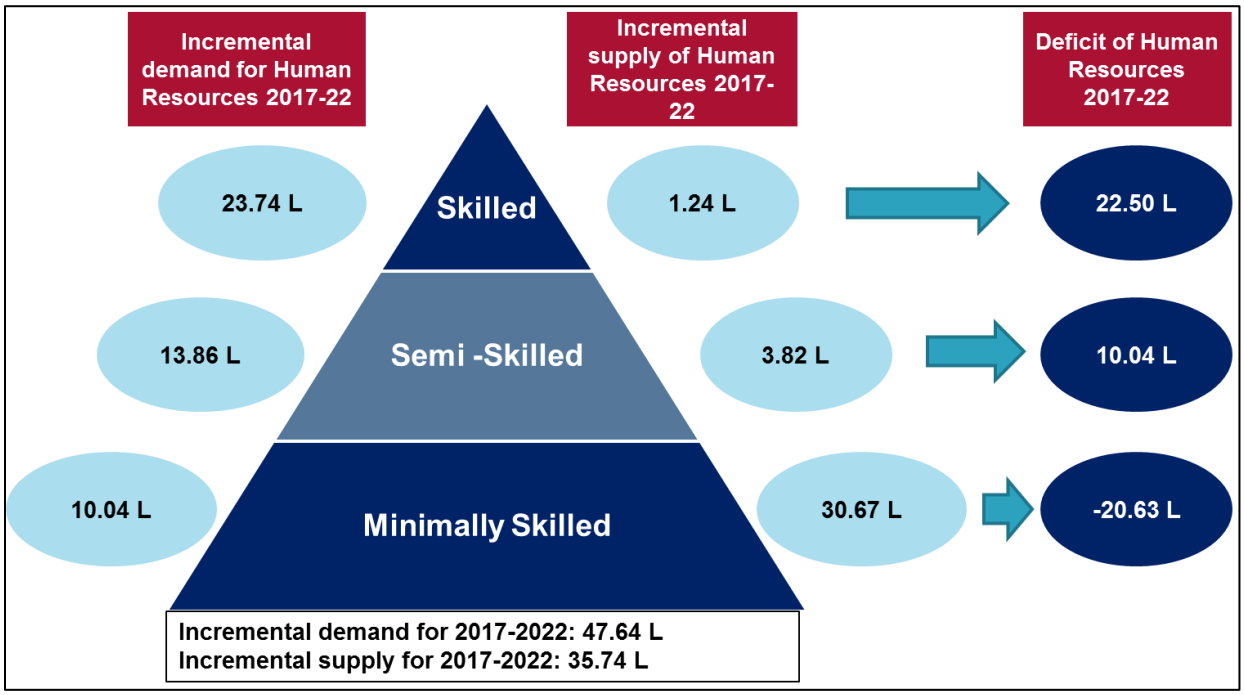


Figure 15 Incremental demand supply gap 2017-2022

During the period of 2012-22, the incremental demand supply gap of manpower in across all sectors is expected to be 36.7 lakh with excess of demand for skilled and semi-skilled workforce and excess supply of minimally skilled workforce. The figure below gives detailed incremental manpower demand –supply gap at various skill levels for the period of 2012-17 and 2017-22.

- The demand for skilled workforce remains to be high during both period i.e. 2012-17 and 2017-2022. Large proportion of demand will be from construction, services and manufacturing sector in the State.
- At present, in case of workforce supply, many of the pass outs lack in employable skills. With State moving towards industrialization, it will be pertinent to skill the workforce with latest technologies to keep up with industry requirements.
- The supply of minimally skills workforce exceeds demand during both periods, indicating need to skill/up-skill workforce in this segment to help them become employable in future.

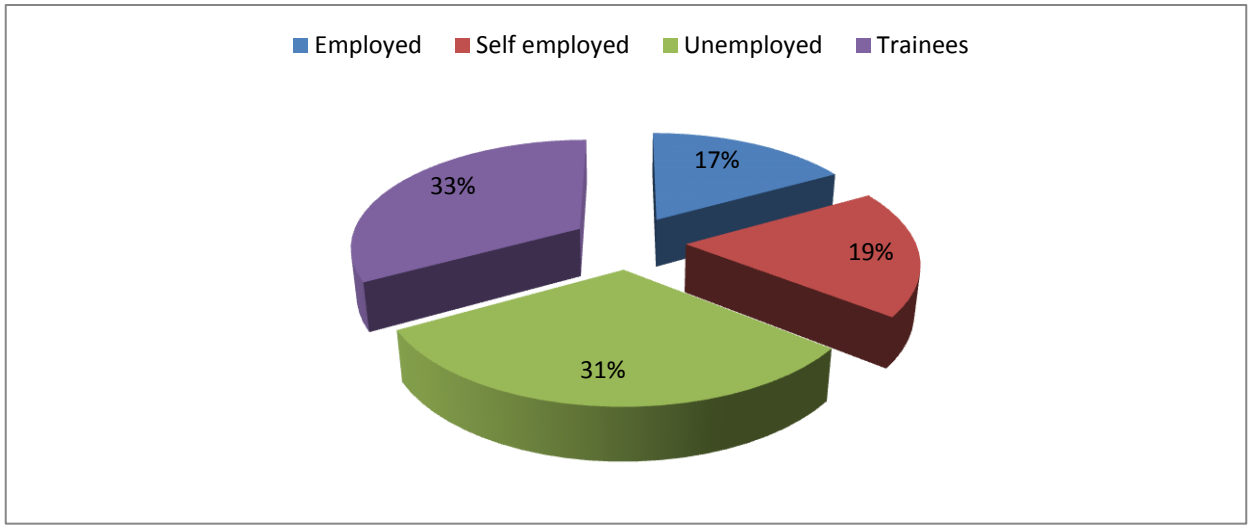


Figure 16 Youth's profile as respondents of primary survey, Andhra Pradesh

3.4 Aspirations of Youth

The aspirations of the youth were mapped against the skilling initiatives of the state and its results. A sample of 1384 youth was taken, on average 60 youth from each district for this survey. The sample included youth from various educations field, self-employed, employed and unemployed. The responses were captured in terms of rating of VTI trainings, perceptions of youth and expectations from training.

Parameters considered by District's youth while opting for vocational training

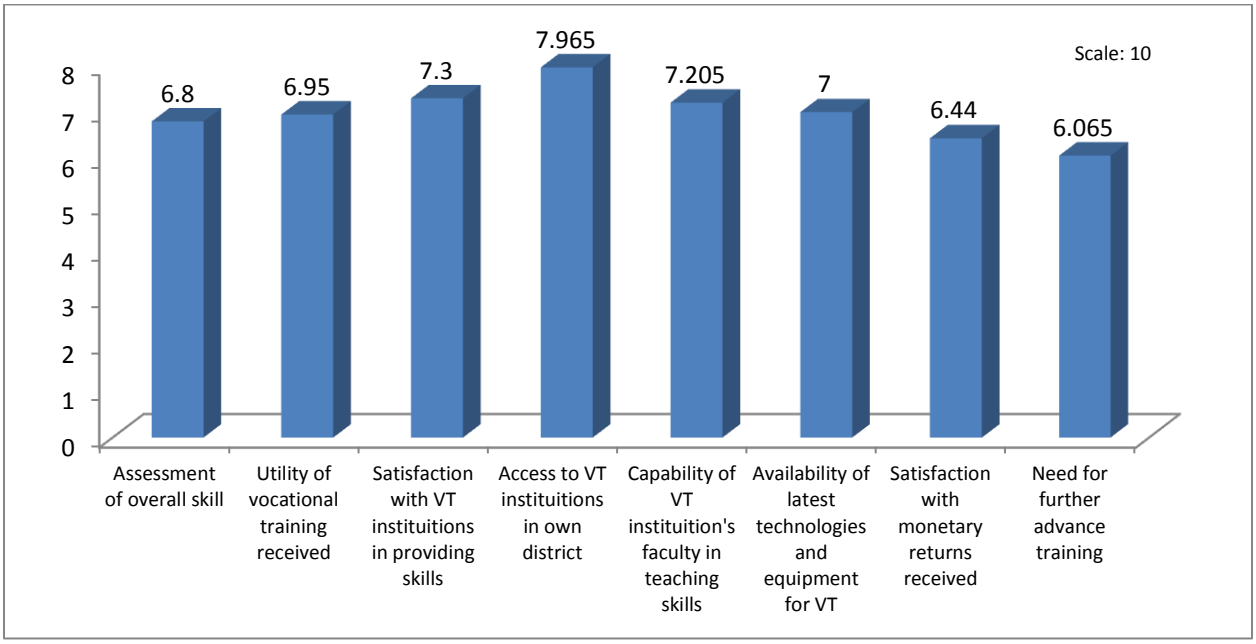


Figure 17 Youth's perception – needs and aspiration, Andhra Pradesh. Source: Primary analysis

During the survey, the youth respondents were asked to rate 10 critical factors that were important to them while opting for vocational training. The parameters included key issues such as respondent's own skills assessment, their perception of utility of vocational training, importance of trained faculty etc. Youth were asked to rate these factors on the scale of 1 to 10, 1 being the lowest and 10 representing complete satisfaction. Most the parameters were given average rating by the youth, conveying a scope of improvement of the current facilities. Some of the major findings are mentioned below:

- Most of the respondents gave average rating to their current skills (6.8 on the scale of 10) and indicated that they do need to take an up-skilling course for better opportunities (6.06 on the scale of 10)
- Students did find the vocational training provided useful, although they expected an improvement in curriculum and more practical training for better industry relevance.

- As per the youth, physical and financial access to the vocational training institutes is one of the most important factor while option for training.
- As per the respondents, current training facilities such as trained staff, technology used, training curriculum played an important factor before opting for a training course.

Various factors influencing the youth to make a job choice were accessed on various factors like job with a good income, job security; job with an opportunity to work with people of your choice and job that gives a feeling of accomplishment or satisfaction. The general expectations of the family and the self-aspirations from a job were broadly seen under the following heads:

- Better technical training
- Better salaries
- Improved lifestyle
- Job security
- Annual Increments
- On-the- job training opportunities.

Skill Development Matrix

The figure below presents the incremental employment opportunities in sectors mapped against the career aspirations and preferences of the youth in each sector.

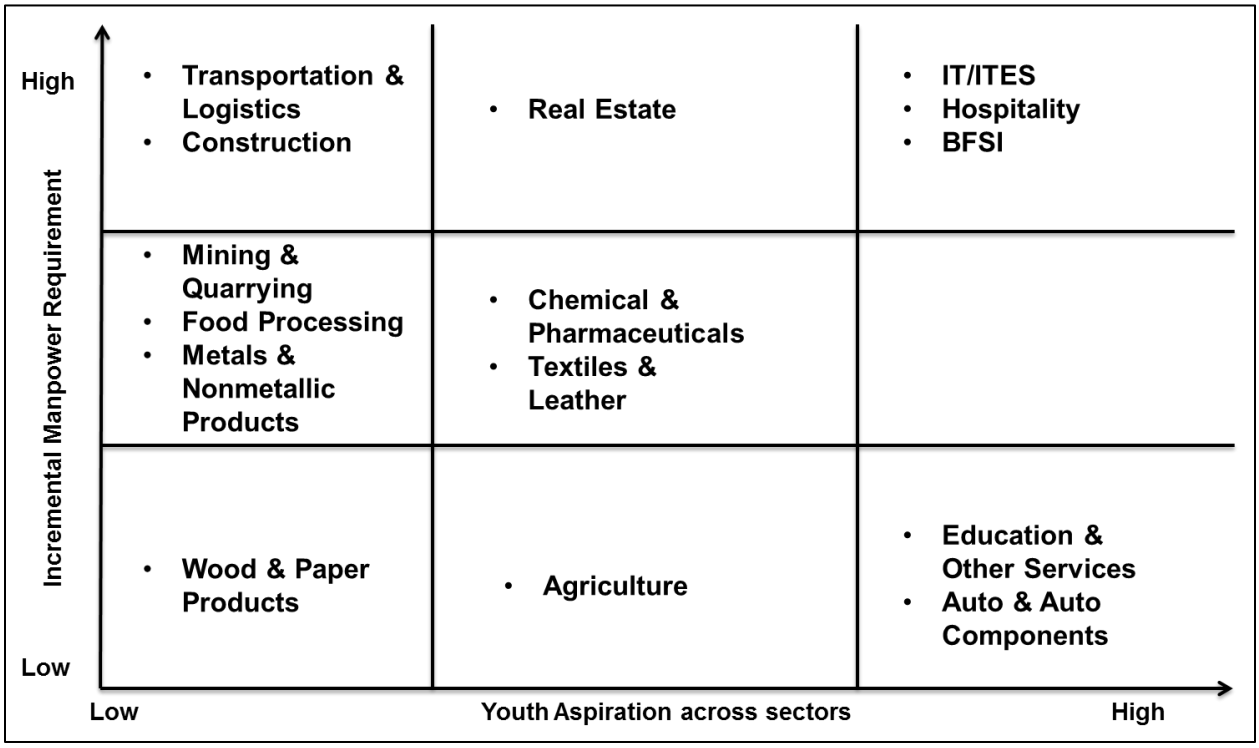


Figure 18 Skill Development Matrix

- In terms of incremental demand, transportation and logistics will require skilled workforce owing to the industrial development in the State but none of the respondents preferred training in this sector. Furthermore, the current training capacity too in this sector is low in terms of industrial demand.
- Sector such as IT/ITES, hospitality and BFSI are highly preferred to youth for training. In terms of incremental demand, these sectors will have the highest incremental demand in the State till 2021-2022.
- Although, the automobile sector is witnessing a slump in past few years, it is still a preferred sector for state's youth for training.

3.5 State of vocational training

Andhra Pradesh has introduced an integrated skilling initiative as Rajiv Yuva Kiranalu (RKY), conceived by the State government, to build job specific skills among the unemployed and provide better placement opportunities. The RKY mission has proposed to skill 15 lakh youth by 2014. With this aim, RKY has introduced many institutional changes such as building of call centres, centrally MIS system, online portal with extensive information availability, online student registration, post placement support etc. Currently, there 834 training centres for RKY schemes. With an aim to provide to training in all sectors, the scheme covers 25 growth sectors with 328 courses being delivered. Although, industry placement of skilled students is still a challenge, that needs to be overcome by the State. Currently, mobilization of students and retention of workforce are biggest issues to be faced by training partners and industries.

The state has developed comprehensive institutional mechanism for effective implementation of RKY. For implementation on Mission mode, an exclusive society – Rajiv Education and Employment Mission in Andhra Pradesh (REEMAP) has been formed to coordinate the efforts of sub mission under Rural Development, Urban Development, Employment & Training, Technical Education, Disabled Welfare, Minority Welfare and Tribal Welfare. Each Sub-Mission caters to a specific geographical area with specified category of youth without any overlap.

3.5.1 Public Private Partnership

State government has collaborated with various private players to impart trainings to the youth. The selection of private training providers is done through National Bidding process. In 2011-12, 34 private training partners extended their services to EGMM and MEMPA sub missions for training delivery. The RYK mission also allows potential recruiters to login to online portal to place their requirements. About 927 employers have registered and indicated their manpower requirements. During 2011- 12, the total requirement of registered employers was 59088 candidates.

Sub Missions	Area of responsibility
Labour Employment and Training	Responsible for identification, training and employment of unemployed urban youth passing out from Industrial Training Institutes in the state, headed by the Commissioner.
Mission for Elimination of Poverty in Urban Slums (MEPMA)	Responsible for training and employment of unemployed youth that belong to SHG families of urban slums, headed by Mission Director.
Employment Generation and Marketing Mission (EGMM)	Responsible for identification, training and employment of unemployed youth in rural

	areas with special focus on the SHG households, headed by the Chief Executive Officer
Technical Education Department (TED)	Responsible for ensuring placement of students passing out of the technical & professional institutions by establishing an organic linkage between the academic institutions and industries/services, headed by the Commissioner.
Disabled Welfare Department (DWD)	Responsible for identification, training and employment of physically challenged youth in the urban and the rural areas and headed by the Director/Commissioner, Disabled Welfare.
Minority Welfare Department (MWD)	Responsible for mobilization, training and employment of Minorities in the State except Hyderabad District.
Hyderabad Sub-mission	Responsible for mobilization, training and employment of all categories of youth in Hyderabad city from slum, non-slum areas with all qualifications including the differently able youth and minorities.

Table 12 Details of sub-mission of REEMAP

3.5.2 Post Placement Support Services

State has taken deliberate steps provide post placement support services to the skilled students. Services such as provision of affordable hostels/accommodation, facilitation in opening of zero account balance, provision of part time/correspondence courses, etc are provided to the state youth under EGMM scheme. Other services include career counseling, health support services, tracking of placements etc.

The figure below gives salary wise placements of youth in the year 2011-12. Maximum number of placement was between INR 3000-5000.

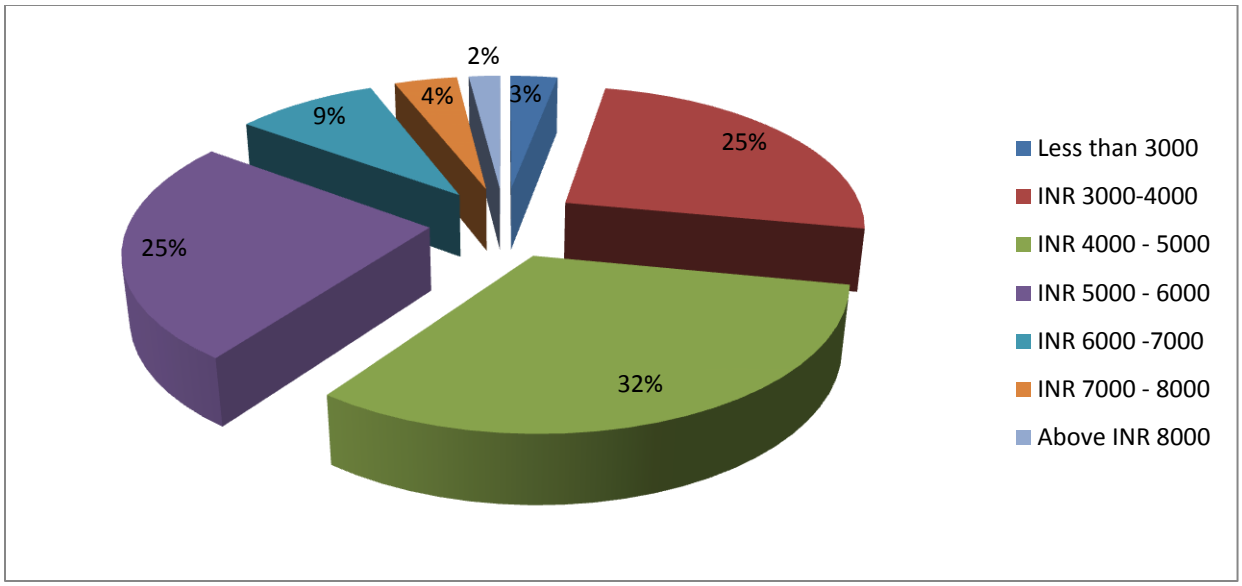


Figure 19 Salary wise placement in 2011-12, Source: RKY Annual report

3.5.3 Other Skill Development Schemes

The state has implemented various skill development programs to provide employable skills to students, existing workers and ITI graduates. The transition of India into a knowledge-based economy requires a skilled workforce, and therefore, a renewed focus on the existing vocational education and training (VET) system. See Table for details on various training programs, target groups, duration of the training courses (short term/long term).

Table 13 Skill Development schemes in the state of Andhra Pradesh

Schemes/ Programmes	Description	No of Institutes	No of trainees in 2012-13
Craftsmen Training Scheme	Intended to train candidates in various Vocational Trades to meet manpower requirements of industries and also to reduce unemployment among educated youth by providing them employable skilled training	ITI-140	24250
		ITC-658	74500
Vocational Training Improvement Project	A Centrally Sponsored Scheme with World Bank Assistance. The Scheme was introduced in 2006-07. 25 Government ITIs have been brought into this scheme in a phased manner with a total project outlay of Rs.8150 lakh for introduction of Centers of Excellence in Automobile, Production & Manufacturing, Electronics, Fabrication and Electrical Sectors and up-gradation of ITIs including introduction of new trades.	25 Government ITIs	
Modular Employable Skills Under	To provide skill up gradation (training) in vocational trades, to school dropouts and to persons with good Work experience but	There were 950 Vocational Training Providers	19,078 candidates were

Skill Development Initiative Scheme	without certificate in the fields of their work. Ensuring Certification.	of which 454 were Government providers up to March 2012.	trained up to March 2012 in 2010-11- and 2011-12
Rajiv Udyogasri Society	Provide training and placement to about 10 lakh educated / unemployed youth in the State. • Identify employment potential in different sectors. • Train youth in short term courses so as to cater to the needs of Industry	13.78 lakh youth were provided training under RUS scheme. 8,90 Lakh unemployed youth were provided placements through the efforts of the society up to 31.03.2011.	
Rajiv Yuva Kiranalu	To provide placement linked skills to unemployed youth in private establishment. The mission proposes to employ 15 lakh youth in jobs in the private industry by 2014. An exclusive State Level Society named "Rajiv Education and Employment Mission in Andhra Pradesh (REEMAP)" has been registered to coordinate the efforts of all sub-missions on a mission mode		Placed Youth: 361194 Under Training Youth: 41298
Up-gradation as Centers of Excellence/ Trades under Public Private Partnership	61 ITIs have been covered in all, under the scheme for up gradation as Centers of Excellence / Trades in a phased manner with a project outlay of Rs.152.50 crore (Rs.2.50 crore for each). The Government ITI, Thambalapally, Chittoor district was awarded the "best performing southern region ITI for the year 2012" and Government ITI Bhimavaram awarded the "best consolidation prize for the year 2012"and the state of Andhra Pradesh declared as the best practicing state in India under PPP at the first national conference on skill development held at Mumbai in February, 2012.	61 ITIs	

3.6 Recommendation

Vocational education in Andhra Pradesh is relatively advanced in comparison to other states of India due to the concentrated efforts made by the state such as introduction of RKY scheme. The introduction of institutional changes such as implementation of MIS portal, successful post placement, career counseling, online student and employer registration etc. has led it to its success. There are still few challenges that the State needs to overcome in terms of quality, industry linkages and youth aspirations.As per the anticipated employment in key sector, following are the few focus sectors for the State, NSDC and training partner to build the training capacity.

Table 14 Key demand sectors - Andhra Pradesh

Sector	Priority	Key Districts	Key Skills
Construction	High	Vishakhapatnam, Guntur, East Godavari, Chittoor, Krishna	Mason, Welder, Mechanical & Electrical Maintenance, Quality Control Lab Technicians, Operators.
Tourism Travel & Hospitality	High	Rangareddy, Nalgonda, Karimnagar, Khammam	Inter-state tour operations, Orientation to foreigners (Global adjustment), Ticketing, Logistics management, Pricing, Customer Relationship Management,
Banking & Insurance	High	Hyderabad, Rangareddy, Vishakhapatnam, East Godavari	Sales & marketing of banking and insurance products, retail banking, Financial agents in Insurance & NBFC companies
IT/ITES	Medium	Nellore, Hyderabad, East Godavari, Vishakhapatnam, Chittoor	Focus on communication –spoken and written, Focus on behavioral courses to improve team building, stress management and time management
Transportation, Logistics, Warehousing	Medium	Hyderabad, Krishna, Vishakhapatnam, Rangareddy, Adilabad	Driver, Maintenance Operator, Crane Operator, Store Supervisors, Loader, Un-loader, Packaging Supervisor, Technology Officer
Textile & Leather	Medium	Nellore, Vishakhapatnam, Vizianagaram, Guntur	Weaving, Processing, Maintenance, Quality testing, Cutting & Sewing, Embroidery & Needle work
Chemicals & Pharmaceuticals	Medium	Rangareddy, Medak, East Godavari, Nalgonda,	Sales and marketing, production, lab assistants, testing assistants
Auto & Auto component	Medium	Rangareddy, Chtittoor, Krishna, Srikakulam	Manufacturing & operations, Repair & Service Mechanics, Shop floor managers
Food processing	Medium	Nizamabad, Vishakhapatnam,	Quality Testing, Packaging, Bar coding, Labeling, Lab Technicians, Raw

	Medak, Rangareddy	Procurement, Sales and Marketing

The figure below indicates that the key stakeholders in the ecosystem should work in tandem to achieve the desired goal of achieving the skilled workforce target.

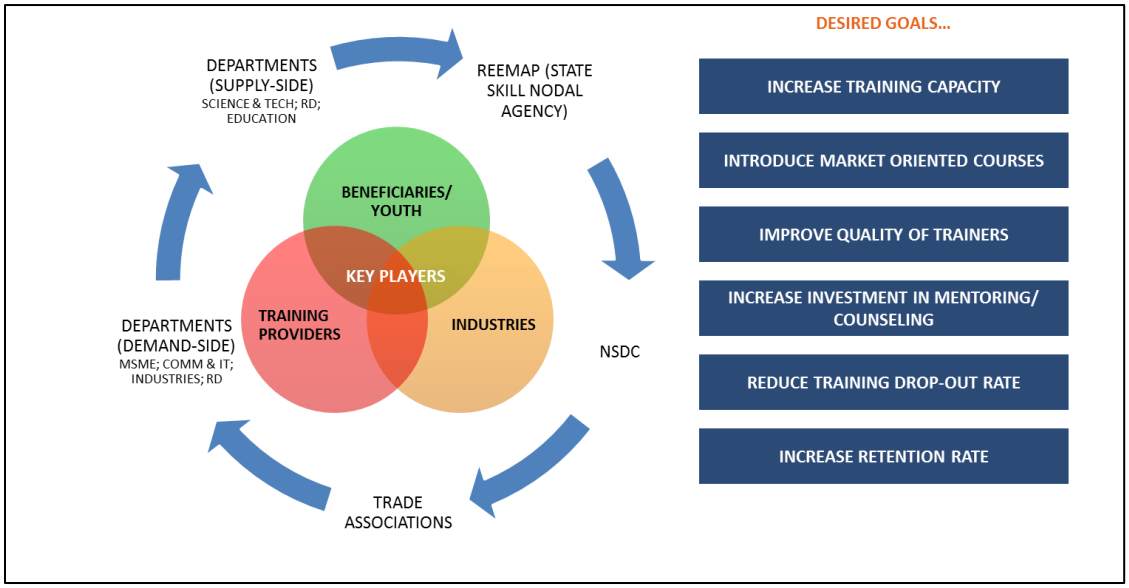


Figure 20 Key stakeholders in the ecosystem and desired goals

The table below provides a brief summary of recommendations which are further explained in detail later:

Stakeholder	Recommendations
State Government	• Establishing training capacity in key demand sectors such as Construction, Tourism & Hospitality, Banking and financial services, manufacturing trades and transportations & logistics. • Focus on training of trainers to improve quality of training. • Focus on unorganized sector by developing entrepreneurship courses for textiles, leather products and imitation jewelry etc. • Developing focused training courses for agriculture & allied sector. • Establishment of coordinated state level skill development plan with industries and NSDC. • Strengthening e-governance and improving the database in PPP model. • Creation of better training infrastructure at both state & districts level. • Public Private Partnership between the key stakeholders i.e. the state, industry and training providers. • Introduction of National Occupational Standards in course curriculum, upgradation of curriculum through Sector Skill Councils.
Industry	• Adapting training institutes for infrastructure up-gradation, providing technological support, training of trainers etc. • Promote internships and on-the-job training.

	• Prefer SSC accredited training agencies and certified trainees • Collaboration with Sector Skill Councils to promote learning forums and up-skilling programmes for current employees. • Public Private Partnership with Government & Training providers to increase employability of skilled workforce.
Training Partners	• Improving course curriculum through industrial and SSC partnerships. • Improve the quality of training for trainers through regular trainings. • Training to be given as per the skill of the workforce, introduction of prior learning assessment and up-skilling accordingly. • Focus on shared education service to lower training cost. • Work in sync with industries to provide market required skills and placements.
NSDC	• Encourage private players to open skill development centres in the districts with high workforce availability such as Mahbubnagar, Guntur, Kurnool, Rangareddy, East Godavari, Anantapur, Visakhapatnam, Karimnagar and Krishna. • Engage the existing and the future SSCs in the state's skilling plan and anchor certain initiatives envisaged. • SSCs should assist the State in standardizing curriculum, creation a pool of master trainers and regular assessments. • Advocate for cluster approach of PPP and industry linkages by using its current industry base. • To introduce concept of dignity in labour and encourage youth to take vocational courses for better employability. • Work out on the specific IEC (information education and communication) strategies, support skilling partners and new entrepreneurs of the state in skilling, and capacity building initiatives

Figure 21 Recommendations for key stakeholder: Andhra Pradesh

Following are the few recommendations made for the State to implement and suggested stakeholders will be the State, Industry, and Training Partners & NSDC.

3.6.1 State Government

Following are the key recommendations for the State to implement:

- Establishment of state level skill development plan
- Strengthening e-governance and improving the database in PPP model
- Creation of better Infrastructure at both state & districts
- Participatory approach among various ministries & right kind of implementation of various programmes
- Public Private Partnership between the key stakeholders i.e. the state, industry and training providers

3.6.1.1Establishment of State-level Skill Development Plan

The state's skill development initiatives would be more effective if it takes a united approach to the skilling interventions. Appointing of the nodal agency for skilling such as REEMAP has enabled better planning of initiatives across departments and given a more holistic approach. Such nodal agency of the state should also coordinate with industrial bodies and NSDC to effectively reach out to the target population and private training partners. The recommended structure for skilling initiatives, with the nodal agency at the head, is given below:

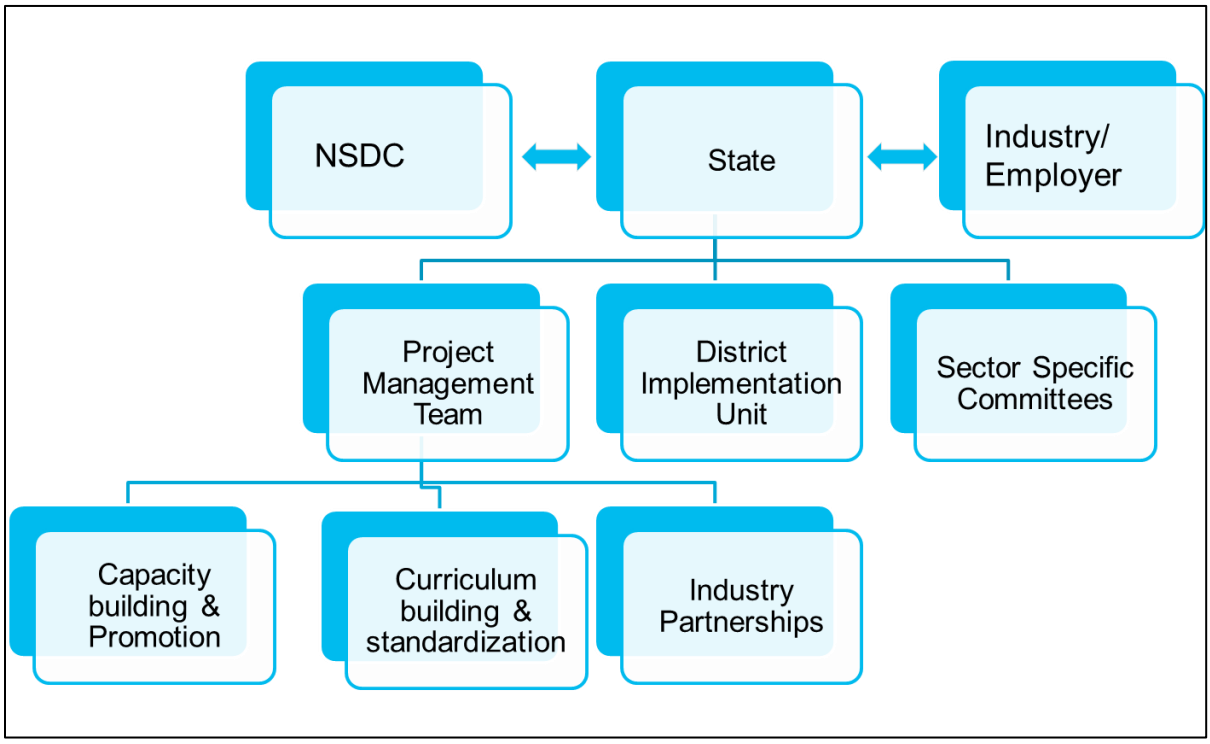


Figure 22 Recommended structure of the State level SDP for skill development

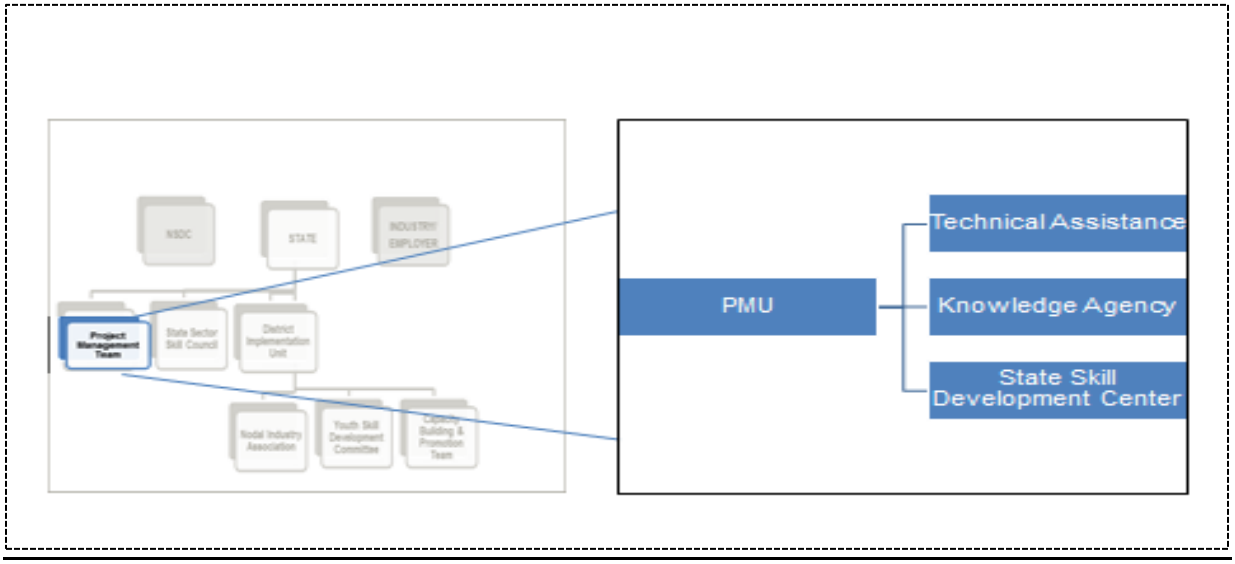
The State level Skill Development Plan can be set up by the State Government in collaboration with REEMAP in order to facilitate, collaborate and implement various skill development initiatives.

- **Key players:** The three key stakeholders of the skilling activities are employers or industries, the vocational training providers (both registered and unregistered) and the beneficiaries—mainly the state's youth.

- **Key enablers:** The enablers of the ecosystem under the State Skill Development plan could be REEMAP (state skill development body), NSDC, state industry and trade associations, and the state departments anchoring various skilling initiatives. They would provide the right environment for the key players to thrive.

The state skill development plan would consist of the following broad structures under functions:

3.6.1.2 Project Management Unit



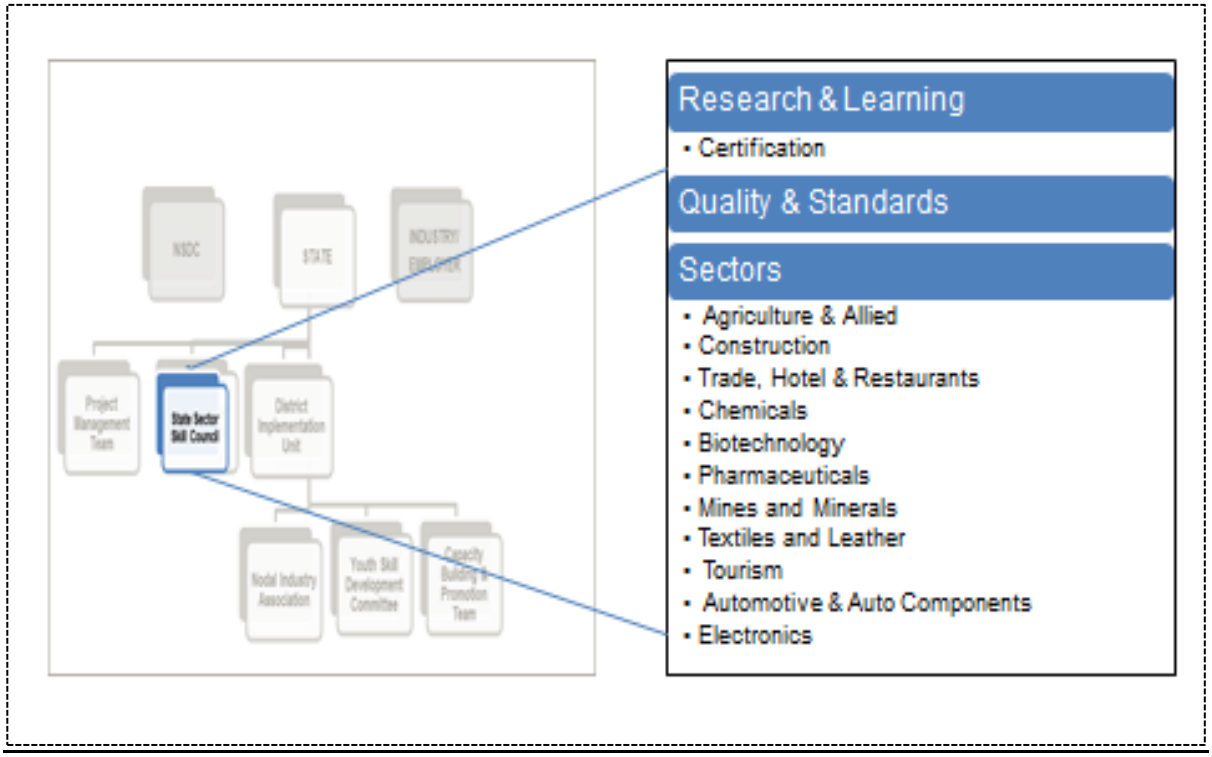
The project management team shall help in the implementation and operationalizing of the complete skilling program of the state by constituting the following:

a) **State Skill Development Unit** by anchoring efforts in learning and development, monitoring and evaluation; development of advanced counseling and career orientation centers and other initiatives.

b) **Knowledge Agency** with the subject matter experts who would be responsible for policy framing, capacity building and preparing the roadmap ahead. It shall also look into linking the state with the certification processes, post placement counselling, research and learning and establishment of ideal centres.

c) **The Technical agency** shall look into the district units, smooth implementation of various initiatives in all the districts and to make skilling to reach everywhere at the field level.

3.6.1.3 Sector-specific skill development through Sector Skill Councils



Sector specific committees in the state should be established with the help of Sector Skill Councils (SSCs). State's industries and institutions should also act as a facilitator in the same. Key role of sector skill committees will be:

a) ***Certification:*** Certification of the courses prescribed, by laying down operational standards of training, grading and specific placement for which it can take the help of third party certifying agencies. SSCs should also focus training curriculum based on National Occupational Standards.

b) ***Quality and Standards:*** Standardized courses and ideal centers for each sector would be crucial in keeping with market requirements. Ideal centers would help to operationalize the procedures laid down to create ideal conditions for sectors to encourage more such training centres across state. Besides, these committees could innovate with capacity building of training providers, by aiding in course curriculum design and training of trainers.

c) ***Research and Learning:*** The sector specific committees must bring in best practices from across the nation and the world, and encourage specific models (pilots or innovations). Local-level skill gap analysis (block level and cluster-specific level) in a periodic manner would help in giving a clear picture of the actual skill situation and show the way ahead.

3.6.1.4 District Implementation Unit:

The State nodal agency should focus on establishing district level units for smooth implementation of various schemes. Key role of such units could be:

a) Identifying nodal industry association in each district: Industry bodies would play a major role in engaging the skilled resources at the minimum skilled or semiskilled wages. The committee should identify the industry association to anchor the skill development initiatives. The industries could be adopting the VTIs for better practical training, exposure and placement. The representation of industry associations is the key to sustainable solutions for the district skilling initiatives.
b) Conducting district-level job fairs by inviting all the major employers in and around the district and ensuring involvement all the VTIs in the district to use this platform to mobilize the youth for training.
c) Capacity building & Promotional activities**:** One of the very important aspects of skill development programme is proper campaigning and awareness of the same. Business development aspect of the State body, promotional activities, branding, creating IEC materials, and implementation of bringing the best practices at district level should be the prime role of district implementation unit.

3.6.1.5 Creation of better Infrastructure at both state & district level:

Implementation structure, funding requirement and mechanism to scale up are important factors to the success of skill development initiatives in the state. A designated nodal agency could anchor the skill development initiatives in terms of guiding, mapping and supporting all the agencies, departments and institutes involved.

Function:

a) Create infrastructure for on-the-job training; encourage apprenticeships
b) Industries could adopt the existing ITIs/ITCs/Polytechnics to provide more relevant tools, course guidance and placement support- a win-win strategy to be devised
c) Create infrastructure for information dissemination; publicize rating and outcome information for training institutions
d) Large-scale skill development initiative at imparting basic as well as advanced training to manage migration of minimally skilled people to semi-skilled and skilled jobs in industries in a structured manner. This involves pre-employment training.
e) The pilot locations for large scale skill development initiative could be the backward districts of Andhra Pradesh. To ensure the effectiveness of the training program, the large-scale skill development initiatives should focus on forward and backward market linkages and scalability. The state rural development programs and agriculture departments can play a key role in this initiative to train the vast minimally skilled workforce of Andhra Pradesh.
f) Revival of Employment exchange: Following are few suggestions for improvement of employment exchanges:
    i. Training employment officers in customer-facing functions
    ii. Establishing more career centres (offering assessment, apprenticeships, counselling, jobs and training)

iii. Giving incentives to employment officers for open positions that lead to closures of vacancies
iv. Incentivizing employment exchange for clearing backlog
v. Publishing employment exchange-wise annual calendar of job fairs
vi. Ensuring easy access to candidate pool by creating a digital format of candidate profiles.

3.6.1.6 Strengthening e-governance and improving the database in PPP model

The employment exchanges in Andhra Pradesh provide marginal support in employment for those who have registered. For example total employment provided during 2008 was only 1045 of which 183 were SCs, 73 STs and 283 BCs. Note that total enrolled on the live register were 20.7 lakhs as on December 2008. Therefore, the employment exchanges hardly address the issue of unemployment.

Function:

a) Strengthening e-governance and improving the data base in PPP model help to gather the data
b) Restructure employment exchanges to career centres encompassing functions of career counseling, training providers for soft skills and placement agencies.
c) Conversion of District Employment Exchanges into Workforce Development Centres
d) The online database such as integrated virtual labor market system could be established through a common Web-based platform. The Integrated virtual labour market system (IVLM) would integrate efforts and information from various stakeholders such as employers, job seekers, public agencies such as REEMAP, employment exchanges, various job portals, and manpower requirements of local firms. It would also help to improve Employability by matching available skills (ITI students, and degree and diploma holders) with industry requirements. This would essentially serve as a transparent platform to search for jobs, match profiles, and provide the state an estimate of the potential job market.

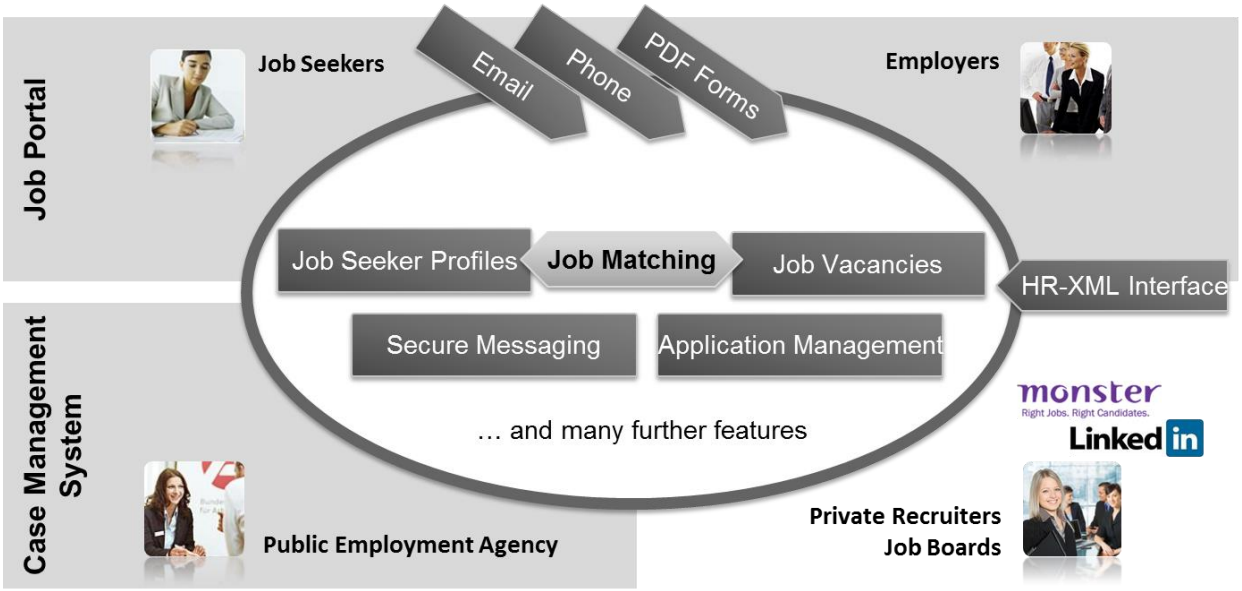


Figure 23 Integrated Virtual Labour Market platform

3.6.1.7 Public Private Partnership between the key stakeholders i.e. the state, industry and training providers

In today's scenario, skill development remains incomplete if it is implemented in isolation. It is very essential to work in sync with the government, industries/employers and training providers

Function:

a) Convergence themes for integrating efforts of CSR in industries for skilling/ up-skilling
b) Strategize the use of skill voucher systems to empower the youth with basket of credible choices and link then with banks etc. for establishing financial stability during and post training
c) Convergence of employment exchanges with project management concepts to revamp the direct employment scenario of the state, mapping of state requirements across various positions and keeping them engaged by continuous staffing solutions etc.

3.7 Industry

Following are the key recommendations for industries in the State of Andhra Pradesh:

- Nodal skill development industry association
- Industries and the state sector skill councils/ committees assist to create a skill development ecosystem
- Public Private Partnership with Government & Training providers.

3.7.1 Nodal skill development industry association:

It would be of foremost importance that industry associations anchor certain skilling initiatives and also have value proposition in terms of skilled workforce for future sector focussed development. The state should identify industry associations such as CII, FICCI etc. in Andhra Pradesh who would anchor industry participation.

Function

a) Advocate the engagement of skilled workers in industries
b) Encourage in policy formation to initiate more PPP interventions for skilling
c) Create ideal resource centres in each district for skill training and placement
d) Act as a medium of interface between the industrial requirements in terms of workforce and VTIs in terms of placement of trained youths

Implementation

a) Regular meetings can be held between the industries and training providers
b) More number of workshops, conclaves, conferences for building awareness on skill development in a participatory mode with other training providers.
c) This association on a regular basis give a feedback on the trainees and explain the industrial requirements to the key stakeholders
d) Skill summits can be held involving other states and a national level interaction can take place on skilling initiatives.

3.7.2 Industry and State collaboration with NSDC and Sector Skill Councils

Industries can work in association with the NSDC and Sector skill Councils for identification of skill development needs including preparing a catalogue of types of skills required, range and depth of skills etc. to facilitate better implementation of schemes.

Function

a) Development of a sector specific skill development plan and maintain skill inventory.
b) Determining skills/competency standards and qualifications.
c) Standardization of affiliation and accreditation process.
d) Participation in Affiliation, accreditation, examination and certification.
e) Plan and execute Training of Trainers.
f) Promotion of academies of excellence.
g) Establishment of a well-structured sector specific Labor Market Information System

Implementation

a) Hire SSC-certified persons.
b) Pay more to certified persons and incentivize the employee to pay for his training, for example, pay one month's salary to the skill/training institution; and or pay an amount equivalent to the money spent on training to the employee after a specified period with the company.
c) Promote continuous learning forums/activities and get all employees in the organization certified.
d) Encourage and incentivize suppliers, contractors and service providers to hire certified persons and make it a condition to partner.
e) Share information with the Sector skill Councils to develop robust Vocational Education System programme.

3.7.3 Public Private Partnership with Government & Training providers

To achieve the goal of the creation of best and skilled workforce in Andhra Pradesh, it is very important that the industry and the future employers work in tandem with the government and

training providers. With the increase in the investment pattern in the state, workforce engagement should increase manifold.

Function:

a) Regular interactions should be done with educational institution. The curriculum of syllabus should be updated as per industry specific requirements.
b) Skill development initiatives should be more employers driven and the Government should be involved only on policy. Employers can develop their own Skill training schemes. Prioritize design and drive sectoral training.

Implementation:

a) There should be awareness about government schemes and to coordinate accordingly for a public private partnership to engage more and more number of youth for employment.
b) Align with the apex body NSDC and state mission for integration with the skilling programmes.
c) Industries could also play a proactive role in setting course curriculum (in line with current industry or market requirements).
d) Proper awareness shall be built on industrial entrepreneurship culture and develop orientation through competition and performance.
e) Institutionalization of more proactive industry involvement in key actions of training institutes such as ITIs.

3.8 Training Partners

Training providers are the key to the success of skill development initiatives. More training providers should be invited for opening centres across districts with suitable funding mechanisms. Based on the growth projections for the districts, available resources and industry's capacity to absorb skilled manpower, the training partners could develop operational plans across districts. While infrastructure support and capacity-building efforts could be provided by REEMAP and NSDC, partnership with local industries and service providers would enable better placements after training. This would basically boil down to the development of **Institute-level Skill Development Initiative** aimed at improving the current infrastructure for skilling (additions and optimization), training designs and overall employability of students to meet industry standards. This initiative comprises the following sub-initiatives and activities:

- Improving course curriculum
- Improve the quality of training for trainers
- Training to be given as per the skill of the workforce
- Focus on shared education service
- Work in sync with industries

3.8.1 Improving course curriculum

Training partners to focus on the sectors like tourism, agro processing, construction, IT and ITeS, automotive, engineering and textile industries to develop courses to define specialization. Specific specializations in each of the industries will be covered under this initiative. Examples of a suggested list (industry-wise) in curriculum shall be as below:

- **Mines & Minerals**: Underground machine drilling, machine handling, marketing and selling activities, finance and administration, Workforce management, health & safety
- **Construction**: Project Planning and Scheduling, Accounting and Control Systems, Project Proposals, Cost Estimation and Tendering, Contract Management, Legal Aspects of Project Management, Risk Management and Insurance, Project Formulation, Appraisal, Project Finance and Structuring, Site Management, Health, Safety and Environmental Management, Information Technology for Project Management, Workforce Development and Management
- **Engineering**: In ITIs Trades like welding, turning, machining and milling can be strengthened with the following additional skill sets like focus on CNC and ISO Quality / Six Sigma, Focus on manufacturing technology, CAD/CAM and industrial automation, Focus on prototyping, product development, styling ,testing and validation
- **Banking & Insurance:** Financial planning, Interaction with Banks and Financial institutions, including negotiations of interest rates, Compliance of statutory requirements, Project costing preparation, MIS preparation, Cost control, Billing and Collection
- **Drugs & Pharmaceuticals:** IPR, Risk Management, Cost Control
- **Biotechnology:** Operating of various machines such as capsule filling, blister packing, ampoule filling, granulation, Ensuring compliance with SOPs and quality standards, MIS and reporting for batch production, Maintenance and repair to minimize shutdowns
- **Textiles**: Focus on design, textile chemistry, spinning courses and garmenting, Focus on market access knowledge, merchandising, patternmaking, finishing and quality control, Focus on quality
- **IT & ITeS**: Focus on communication –spoken and written, Focus on behavioral courses to improve team building, stress management and time management.
- **Tourism**: Inter-state tour operations, Orientation to foreigners (Global adjustment), Ticketing
- **Food Agro & Food Processing**: Lab Management, Food Quality and Regulation, Branding, Quality Certification
- **Chemicals & Fertilizers**: Basic understanding of safety issues while handling chemicals Purchase and negotiation skills, Production and Operations Management, Quality related processes, Awareness of emerging areas such as *water soluble fertilizer,* Design skills

3.8.2 Focus on practical orientation

The objective of this program is to back theoretical concepts with extensive exposure to the industrial environment. It will cover advanced technical knowledge at the concept and machine level, study of physical models to back the theoretical concepts and exposure to the latest industrial equipment. The time allotted to the practical component of the training module will also be increased from the current 10–15 percent.

3.8.3 Improve the quality of training for trainers

Function:

1) To provide cutting-edge training programs on knowledge-based industries to select faculty members

2) Ensure transfer of knowledge from faculty to students, better utilization of educational infrastructure
3) Encourage industry-institute partnerships

Implementation:

1) Faculty members would be selected for university-approved specialized courses on the basis of their educational background, experience, institute profile, student profile and training needs.
2) Selected faculty members will undergo a structured training for a period of four weeks during the summer vacation. At the end of training programme, the faculty members will undergo another three to four weeks of training with the companies.
3) The cost of the training will be borne by the educational institution.

3.8.4 Focus on shared education service

Function:

1) Train students in highly specialized trades through a shared education service model.
2) This initiative will cover a list of university-approved specialized courses
3) It will ensure quality education, reduce pressure on duplicating infrastructure, encourage specialization and generate revenue.

Implementation:

1) These highly specialized courses will be offered at select educational institutes with the necessary infrastructure and faculty
2) Students from other colleges can get trained and certified by the host institute and course credits can be transferred.
3) The host institute can generate revenue by way of training fee.

3.8.5 Work in sync with industries

Function:

1) Cater more to the industrial requirement as per the current demand.
2) Up gradation of courses and curriculum should be done as per the requirement.
3) On the job training and practical training should be an essential part of the training.
4) Training programme should be prepared based on industry needs and priorities

Implementation:

1) Industries or employers should be involved in direct intake and placement of the trainees
2) More level of interaction should take place between the employers and training providers and trainees.
3) Encourage private training providers: The focus of this initiative is on the shared service model for better utilization of infrastructure and equipment. Private vocational training providers should be encouraged to set up base in the state.

3.9 NSDC

In the State Skill Development Plan, NSDC role shall be of an enabler along with industry and private training providers. It will encourage more partners to be a part of the skilling initiative. It will provide overall policy framework for training, provides necessary incentives and ensures

that training meets required pre-set service delivery options. Monitoring & review is an important function of NSDC. There should be more engagement of employers into dialogue.

Function:

a) Engage the existing and the future SSCs in the state's skilling plan and anchor certain initiatives envisaged
b) Encourage innovative proposals with direct linkages drawn from the state and do the funding in specific sectors like agro and food processing, pharmaceuticals, bio-technology etc. catering for a range of trainings
c) Advocate for cluster approach of PPP and industry linkages by using its current industry base
d) Work out on the specific IEC (information education and communication) strategies, support skilling partners and new entrepreneurs of the state in skilling, and capacity building initiatives.

Implementation:

3.9.1 Sector Skill Councils - The sector skill councils (SSC) would be an important enabling factor from which the state could leverage on the structure and the national occupational standards (NOS). In brief, the objective of the SSC is to complement the existing vocational education system and address skill gaps through research, improved delivery mechanism and building quality assurance.

3.9.2 Funding

Funding proposals in key growth sectors that are innovative and can have a "multiplier" effect / "ripple" effect in the skill development space, and are targeted at the sectors/ segments with huge unmet needs (e.g. unorganized sector, training of trainers) can apply under the NSDC for funding.

3.9.3 Building long-term capability of existing clusters

Long term plans can be made for the clusters by including the best practices of Public Private Partnerships, better infrastructure availability, identifying the key Workforce requirement, through better research studies. It can approve cluster based projects. Revamp the employment exchange with the help of the Sector Skill Councils.

3.9.4 Employer driven engagement with private players

This shall help the State to get more industry involved in the skilling initiative. Discussions with large number of corporate enterprises and NGOs on outcome linked sustainable skill development. It can be done through more one to one discussion, participation in skill related conferences and conclaves. With the help of the industries, mapping of job roles and competency can be done.

3.9.5 Participatory approach for all the stakeholders

NSDC shall create an environment of skilling landscape by bringing all the stakeholders to get involved in a bigger way in to the skilling initiatives and enable framework for skills in the State.

3.9.6 Support the training partners

- Fund support: The training partners can approach NSDC for funds with their own proposals for training.
- Capacity building of professional Training Partners: Through workshops on best practices and partners meet these training providers can get an edge in their work and much better scope of skilling can be done in future. Training of trainers should be done at a regular basis.
- Facilitation for sharing the infrastructure which will bring down the cost of training.

3.9.7 Branding, Communication and Awareness building

Awareness building can be done though mapping of job opportunities for youth, promoting cross learning, exposure visits, promoting research and development and exchange of information between all stakeholders. State could also collaborate with NSDC to roll out an extensive campaign to spread awareness about training courses and build aspirations of the youth.

Chapter 4: District Wise Skill Gap Findings

4.1 Adilabad

The subsequent section highlights the economic base and occupational structure of the district Adilabad. It identifies the high impact industries and skills needed to match expected growth.

The latter section represents the projected workforce demand and supply in the coming years and the optimization plan for the district.

4.1 Adilabad

4.1.1 Adilabad District Demographic Profile

Table 15 Adilabad district at a glance

Adilabad District at a Glance				
Population	**Adilabad District**		**Andhra Pradesh**	**Remarks**
	Provisional Census 2011	**Census 2001**	**Provisional Census 2011**	
Total Population	2737738	2488003	84665533	
Total Population – Male	1366964	1250958	42509881	
Total Population – Female	1370774	1237045	42155652	
Population Growth	10.04	19.47	11.1	
Area Sq. Km	16105		275100	
Density of Population (Density/Area sq.Km)	170	154	308	
Proportion of Andhra Pradesh population	3.23%	3.26%		
Decadal growth of population (2001 - 2011)	10.04%	19.47%	11.10%	
Literacy rate	61.55	52.68	67.66	
Male Literacy	71.22	64.98	75.56	
Female Literacy	51.99	40.30	59.74	
Sex ratio (per 1000)	1003	989	992	
Worker population participation rate		45.1	45.7	Census 2001
Cultivators to total workers		30.4	22.52	Census 2001
Agriculture laborer in workforce		30.6	39.64	Census 2001
Household workers		8.9	4.71	Census 2001
other industry and services		30.4	33.13	Census 2001

Adilabad is the fifth largest district in Andhra Pradesh. About 65 percent of the total area is tribal lands and 68.5 percent of its population lives below the poverty line. The State has a great deal of forest cover. Besides this, the district ranks first in revenue generation from mineral deposits in Andhra Pradesh. It is well endowed with rich reserves of coal, iron ore, limestone, and clay.

As per provisional Census 2011 data, Adilabad's population is 2.73 million with a sex ratio of 1003 compared to the 2001 Census figure of 989 females. There was a 9.43 percentage points decrease in the decadal growth of population, indicating stabilization.

Among the 23 districts in the state, Adilabad has the lowest population density; with 170 persons per sq km. Adilabad constitutes 3.23 percent of Andhra Pradesh's total population; in the 2001 Census, that figure was 3.26 percent. Adilabad holds the fourth lowest position when it comes to literacy in the state. Adilabad's literacy rate in 2011 was 61.55 percent compared to 52.68 percent in 2001. According to provisional Census 2011 data, the male literacy figure stands at 71.22 percent, while female literacy is 51.99 percent.

It is pertinent to note that the total workforce participation rate is 45.1 percent. The total male working population is 52.9 percent against the female working population of 37.0 percent. The majorities of Adilabad's workers are engaged in agriculture and allied activities. Out of the total working population, main workers comprised 36.7 percent and marginal workers accounted for 8.5 percent. Also, 22.7 percent of workers were agricultural laborers followed by 35.52 percent who were cultivators, and 41.88 percent who worked in other industries and services.

4.1.2 Economic Profile

The district's Gross district domestic product (GDDP) has grown at the growth rate (CAGR) of 7.07 percent between 2004-05 (INR 652,741 lakh) till 2009-10 (INR 983,319 lakh). In 2009-10, tertiary sector contributed 51 percent to the GDDP primarily due to the contribution of trade, hotels and restaurants sector followed by primary sector which contributed 29 percent to the district's GDDP.

As shown in the chart below, the contribution of the primary and secondary sector has shown a very slight increase, although contribution of the tertiary sector grew by 8.59 percent from 2004-2005 till 2009-10.

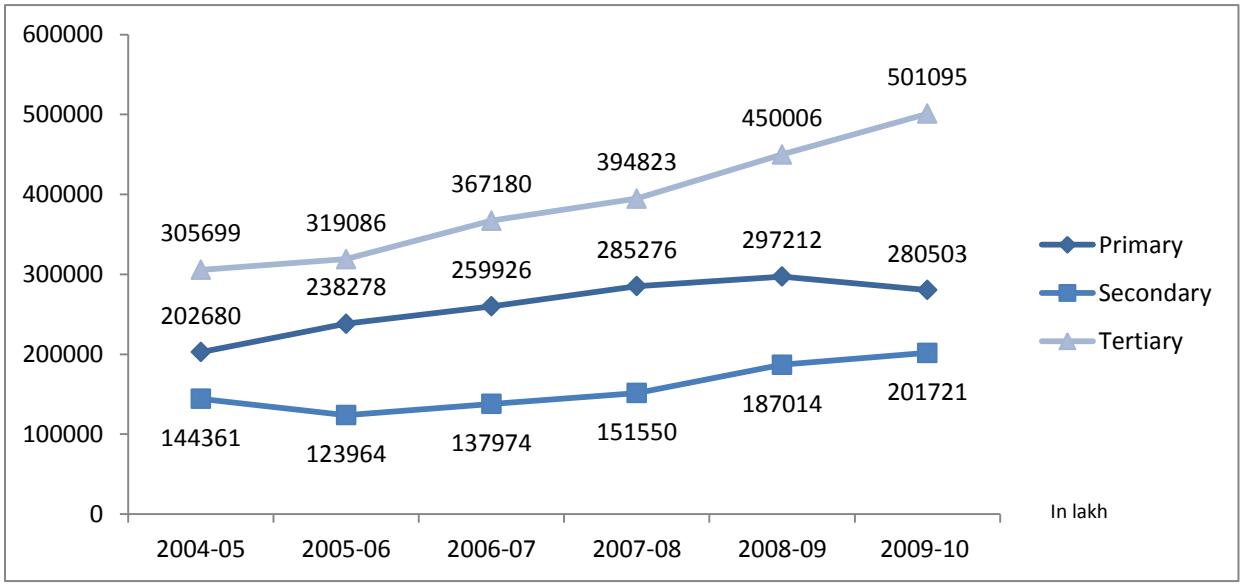


Figure 24 Sector level contribution to the GDDP, Adilabad; Source: Census 2011

Primary Sector

The primary sector (agriculture, forestry &logging, livestock, fishing and mining & quarrying) contributed 28.53 percent to the GDDP in 2009-10. Agriculture sector remained as the highest contributor to the primary sector, contributing 42.12 percent to the primary sector in 2009-10, followed by mining and quarrying (39 percent), forestry and logging (12.20 percent), livestock (4.41 percent) and fishing (2.25 percent).

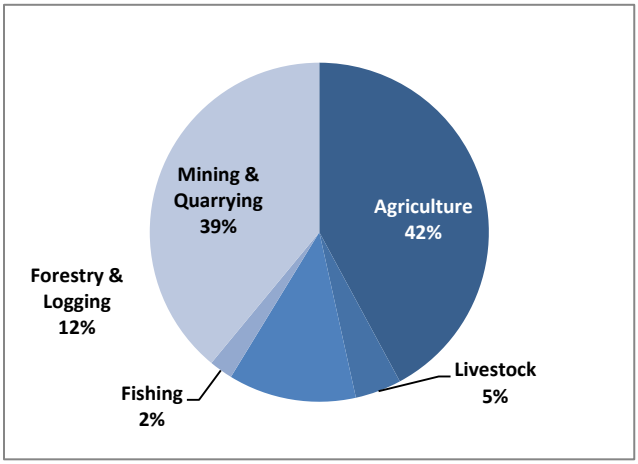


Figure 25 Primary sector contribution to GDDP, 2009-10

The CAGR for primary sector is 5.57 percent from 2004-2005 till 2009-10 with mining and quarrying registering highest growth (~10. 66 percent) from 2004-05 till 2009-10.

The district net sown area is 582886 hectares which is 36 percent of the total area. In the district, both food crops and nonfood crops are cultivated. Among the food crops, paddy crops are highest cultivated followed by Jowar, Maize and pulses. In case non-food crops cotton ranks first in the district remaining crops are sunflower, wheat, Seas mum, green gram, black gram, soya bean.

The important minerals in the district are coal, manganese, limestone, clay, laterite and sand.

Secondary Sector

The contribution of the secondary sector to district GDP in 2009-10 was approximately 20.51 percent. The sector has shown a CAGR of 5.73 percent from 2004-05 till 2009-10, primarily due the contribution of construction sector.

The construction sector has shown an impressive CAGR of 11.61 percent from 2004-05 till 2009-10. However the growth of manufacturing sector has been negligent with registered manufacturing units growing only by 1.63 percent and unregistered manufacturing units by 4.24 percent from 2004-05 till 2009-10.

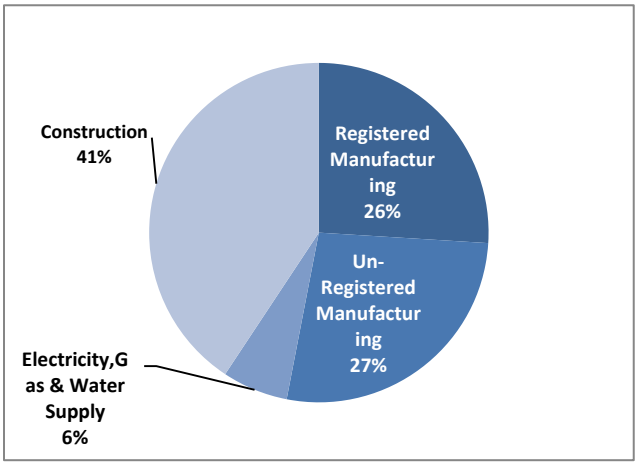


Figure 26 Secondary sector contribution to GDDP, 2009-10

Tertiary Sector

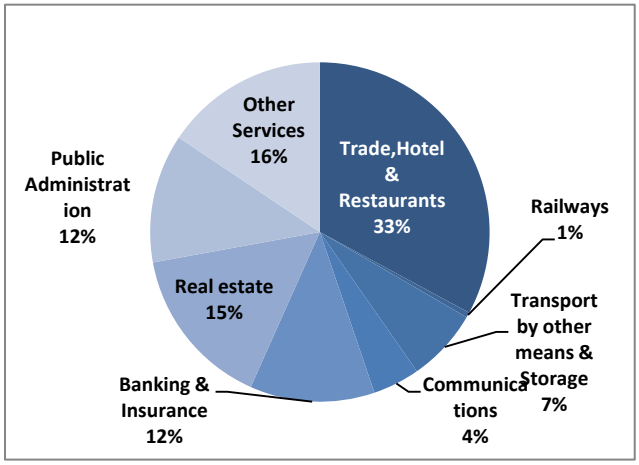


Figure 27 Tertiary sector contribution to GDDP, 2009-10

The contribution of the tertiary sector has been significant to the district's economy over the years. In the year 2009-10, the contribution of the tertiary sector was 51 percent to the district's GDDP. The sector has shown the highest CAGR among the three sectors of 8.59 percent from 2004-05 till 2009-10, primarily due the trade, hotels and restaurants sector

Three sectors which have shown a high CAGR from 2004-05 till 2009-10 are transport by other means & storage (15 percent), communications (15 percent) and BFSI (14 percent). Although, trade hotels and restaurants have contributed highest to the growth of the sector, but it has shown a CAGR of only 8 percent from 2004-05 till 2009-10. Real estate and other services grew by 5 percent from 2005-05 till 2009-10.

4.1.3 Education Infrastructure and Utilization

Table 16 Schools with enrolment details; Source: Statistical Abstract, Andhra Pradesh – 2011

Schools	Total Number	No. of Enrollments
Primary Schools	3343	218490
Upper Primary Schools	677	94863
Secondary Schools	786	186576
Higher Secondary Schools	1	445

Adilabad's literacy rate in 2011 was 61.55 percent compared to 52.68 percent in 2001.

However, the district still trails behind the state average of 67.66 percent. According to provisional Census 2011 provisional data, the male literacy figure stands at 71.22 percent, while female literacy was at 51.99 percent. As per Census 2001, the total number of graduates and above in Adilabad district was 43,564, the lowest number of people who are graduates and above in the State. Out of this population of graduates, 65 percent were male. The district contributes 1.54 percent to the State's number of total graduates.

Table 17 Education Statistics; Source: Statistical Abstract, Andhra Pradesh – 2011

Educational Institutions	Total Number
ITIs	2
Polytechnics	4
Engineering Colleges	2
Medical/nurses Colleges	3
Pharmacy Colleges	0

Not surprisingly, Adilabad is struggling to keep children in school. The gross enrolment ratio for

classes I-V is 122.58 percent, followed by 92.37 percent for classes VI – VIII, and just 73.32 percent for classes VIII – X. In contrast, the ratios for the state as a whole are 100.46 percent, 84.76 percent, and 69.51 percent respectively. The dropout rates show an increasing trend over class I-X of 53.53 percent. The dropout rate in Adilabad is higher than

the state figure by 7.32 percentage points. The district will need to emphasize quality of education, provide incentives to the best teachers, and develop better facilities for students, particularly for girls.

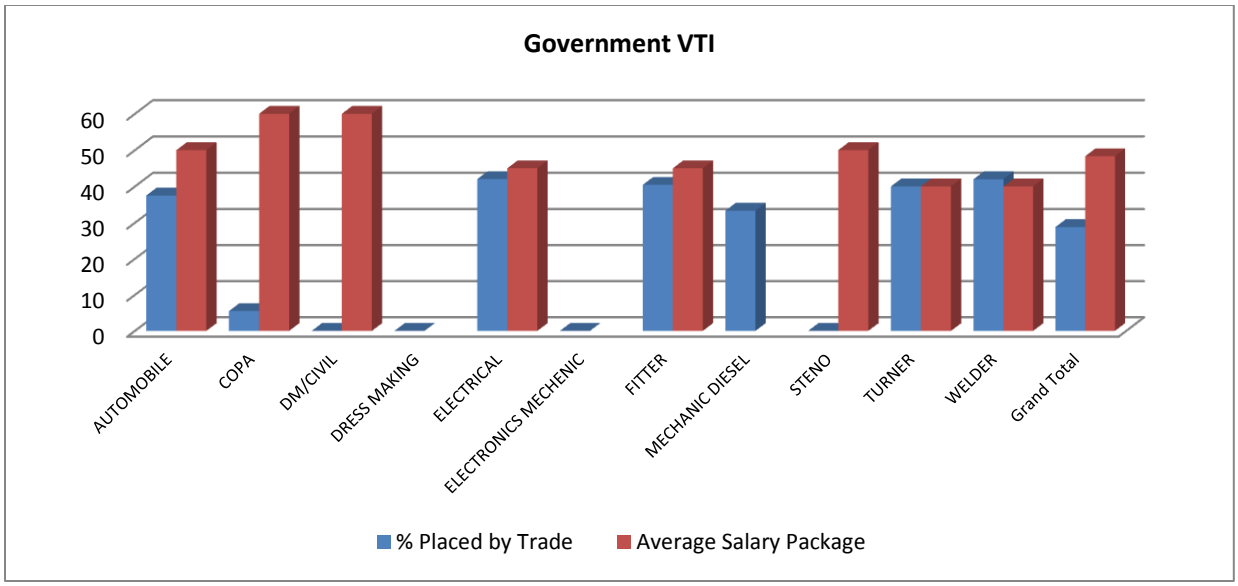
4.1.4 VTI's demand across various trades in Adilabad district

There are 20 vocational training institutes in Adilabad, out of which six are Government ITIs and rest are private ITIs. Interestingly, it may be noted that the intake of trainees is consistent across various trades like those for fitters, electricians, instrument mechanics, motor vehicle mechanics, and electronics. New trades are introduced based on industry demand. All the trades and units are affiliated to National Council of Vocational Training of Director General of Employment and Training.

Table 18 Courses offered in government and private VTIs (sample survey)

Government VTI Trades		Private VTI Trades
Automobile	Fitter	Electrical
COPA	Mechanic Diesel	Fitter
DM/Civil	Mechanical	Mechanical
Dress Making	Motor Mechanic	Mechanic Diesel
Electrical	Steno	Turner
Electronics Mechanic	Turner	
Welder		

The variety of courses offered by government VTIs is greater than those offered by private VTIs. The government VTIs sampled for this study offer 13 different trades for training, while the private VTIs offer five trades. Courses in electrical trades, followed by fitter trade appear to be the most popular in both government and private VTIs.



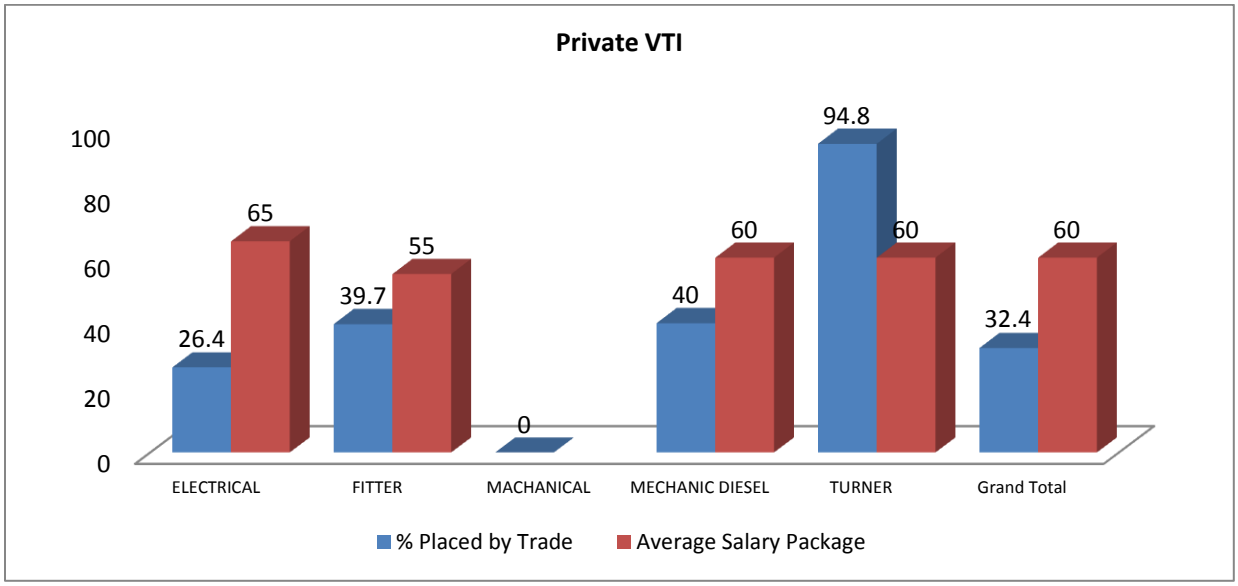


Figure 28 Courses offered placements in VTIs and average salary offered

Government VTIs in Adilabad have a stronger placement record than in many other districts. However, recruitment falls behind in some trades like DM/ Civil, dress making, electronics, and stenography. Not a single trainee from these trades was placed. Placements in private VTIs are good across all trades except that for mechanics. Indeed, average salary per trainee was about INR 1,500 higher in private VTIs than in government ones. Private VTIs reported some of the highest salaries, with electricians getting an average of INR 6,000 per month. Placements of trainees from the government VTIs largely take place through campus interviews. The employment exchanges do not appear to be playing a major role in placements of candidates from private VTIs.

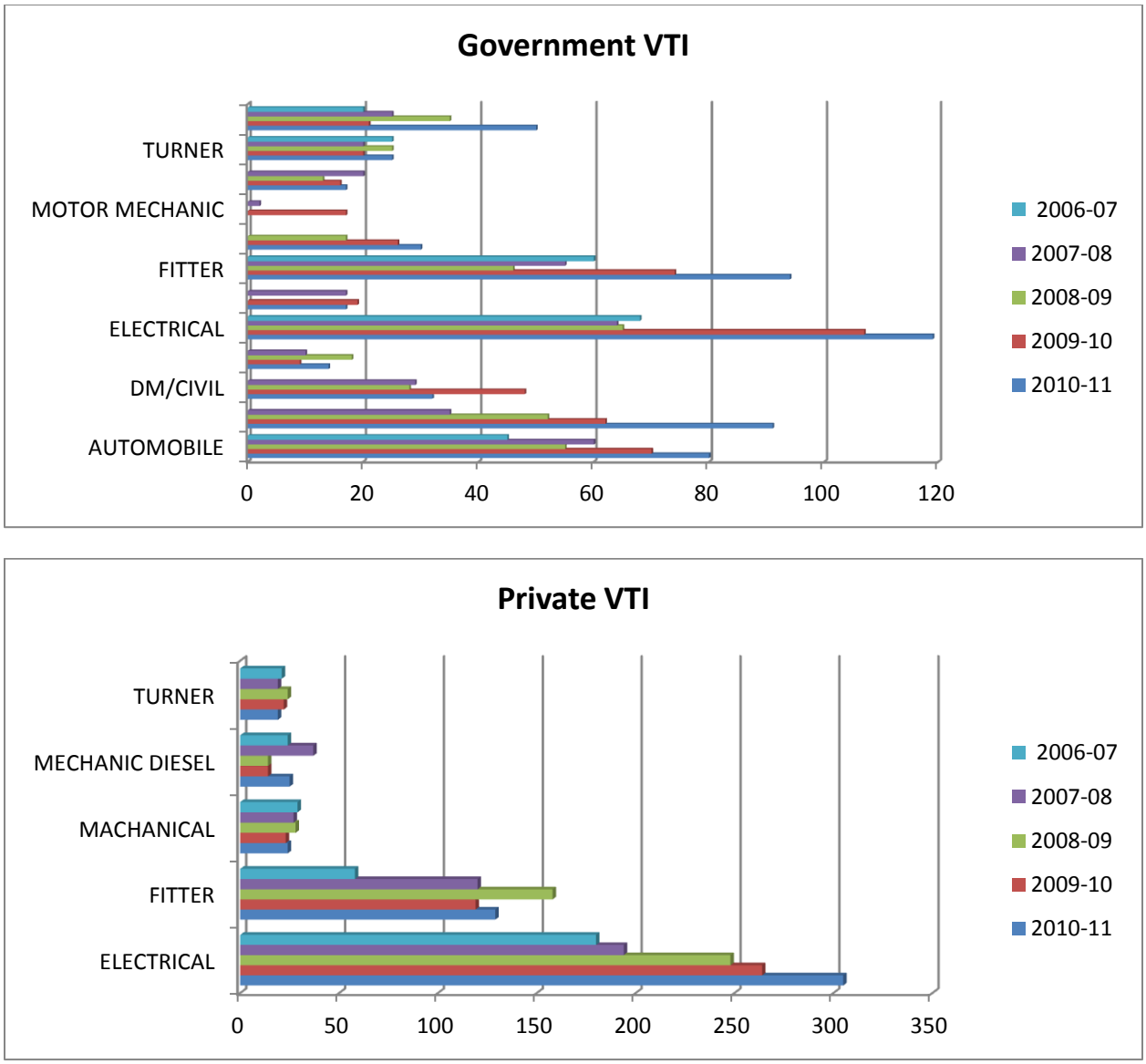


Figure 29 Number of seats over the years in Government and Private VTIs

The total number of seats has increased in both government and private VTIs. In government VTIs, the COPA trade has increased its intake continuously, while private VTIs have increased the intake of trainees for the electrical trade.

Table 19 Approved & Actual presence of staff in VTIs

Government VTIs		
Positions	**Approved**	**Actual**
Managerial	16	15
Academic	51	38
Support	37	33
PRIVATE VTIs		
Positions	**Approved**	**Actual**
Managerial	18	18
Academic	52	32
Support	12	12

Staffing also remains a challenge at the training institutes. Both government and private VTIs face shortfalls of academic staff. However, government VTIs also has vacancies among their support staff, making their work much harder.

4.1.5. Placement & Absorption Trend

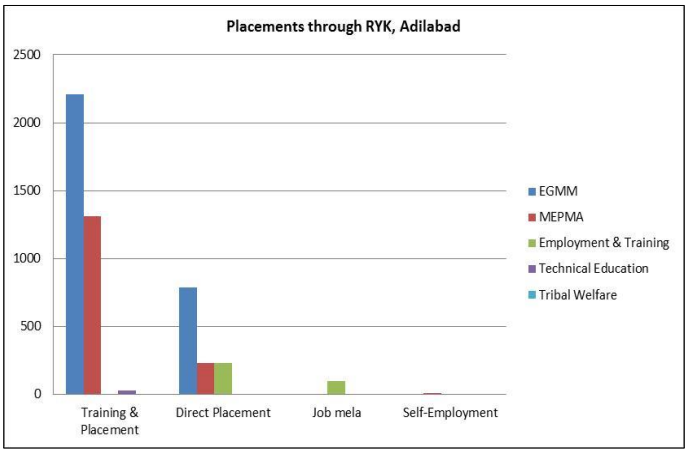


Figure 30 Placements through RYK; Source: RYK state level placements monitoring report, June 2012

There are two employment exchanges in Adilabad. The number of candidates in the live register during 2009-10 was 1,16,753. However, out of this large number, only 133 appear to have got placed. Despite the poor success rate, Adilabad's employment exchanges have actually done better than their counterparts in other districts. The Rajiv Yuva Kiranalu has had more success, as the figure shows. Job placements largely occur through private institutes with direct industrial linkages offering training and development to the trainees. At present, among candidates registered with employment exchanges, job-seekers with a degree or diploma are expected to wait longer to get sponsored than candidates with intermediate level of education.

4.1.6. Sector wise mapping of industries in Adilabad

Adilabad is growing fast, creating demand for more workers with greater skills. The district ranks first in the state when it comes to revenue generation from mineral deposits. Adilabad is also well endowed with rich reserves of coal, iron ore, limestone, and clays. The district is strategically located and well connected to Hyderabad, making it a favorable location for industrial development. It also provides unique opportunities to coal industries, cement, power generation, cotton, and the extraction of solvents of soya bean.

Industry wise Sector Mapping					
NSDC (High growth sectors)	Units	Employment	High	Medium	Low
Agriculture & Allied	801	16460			
Food Processing (Food beverages & Tabacco products	208	2573			
Electronics Hardware	2	9			
Textiles & Garments	35	814			
IT or software					
Chemicals & pharmaceuticals	21	115			
Building & Construction	122	2958			
Engineering	411	1879			
Manufacture of Wooden furniture	5	61			
Paper & publication	1	1978			
Forest based industries	128	8340			
Petroleum	1	60			
Mineral based indsutries	113	3582			
Service based industries (Repairs & maintenance: R&D)	8	509			

Table 20 Sector wise mapping of Industries; Source: DIC

High	Units>200, emp>1000 - all applicable
Medium	Units>100, emp>500 - all applicable
Low	Units>10,emp>30 - all applicable

Table 21 No. of sampled industries for industrial survey

Sector	No. of Industries Sampled
Agriculture & Allied	2
Construction Material & Building Hardware	14
Machinery, Electricals & Manufacturing	1
Paper Based	2
Power Generation	1
Textile & Handloom	3
Wooden Products, Handicrafts	1

In order to understand the trend in the existing market and industrial set up, a stratified sample of twenty four industries and seven sectors was selected. The selection ensured diversity among the industries.

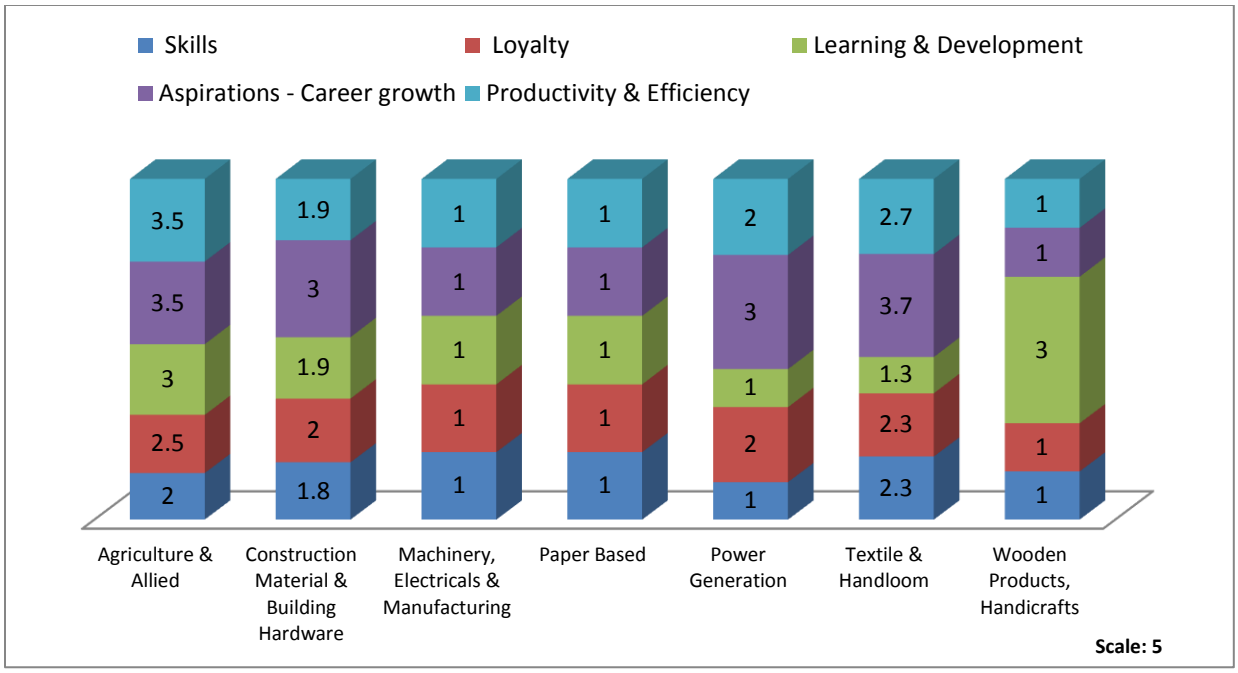


Figure 31 Employers demands in terms of expectations from workers

When employers were asked to rate their expectation from their workers on a scale of five, employers from the agriculture sector reflected a relatively higher desire for worker characteristics. Most of the employers rated their expectations between 1.0 and 2.0, which indicates a relatively low level of satisfaction.

4.1.7 Composition of workforce

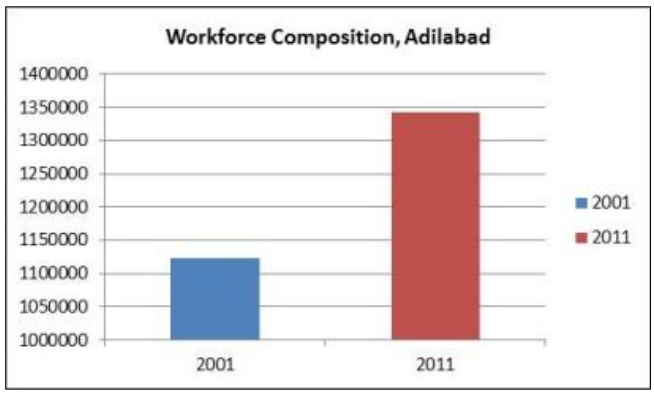


Figure 32 Projected Workforce; Source: Deputy Commissioner of Labour, 2012

According to provisional Census 2011 data, the total workforce in Adilabad district is expected to rise by 19 percent against the 2001 data. The total workforce participation in Adilabad is 45.1 percent and the total male working population is 52.9 percent against the female working population of 37.0 percent. Despite this, the proportion of the female working population in Adilabad district is 2.1 percentage points higher than the state figure.

The working population of Adilabad district is 46.8 percent of the total population. Out of the total working population, main workers comprise 36.7 percent and marginal workers another 8.5 percent. Among the total working population, 30.58 percent are agricultural laborers followed by another 30.38 percent who are cultivators. The “other industries and services’ “sector accounts for another 30.4 percent.

A large proportion of Adilabad's main workers population falls in to the age group of 15-59 years. Interestingly, among the non-workers and marginal workers, females in the age group of 15 - 59 outnumber males.

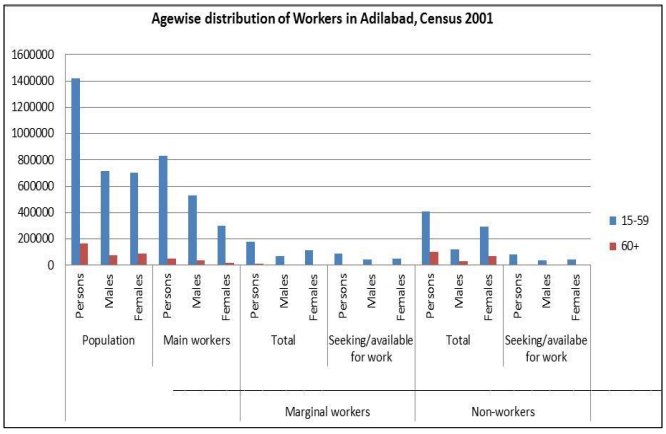


Figure 34 Agewise distributions of workers

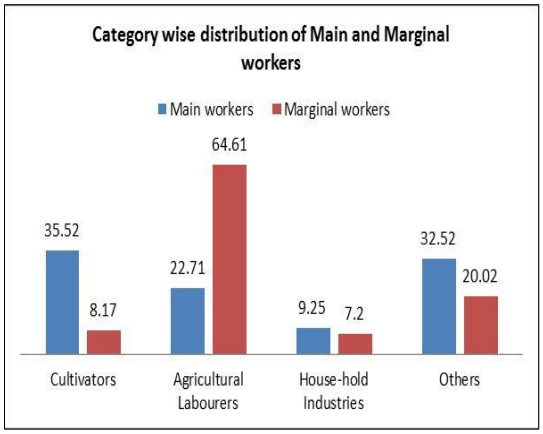


Figure 33 Category wise distribution of main and marginal workers; Source Census 2001

4.1.8 Projected Workforce Demand

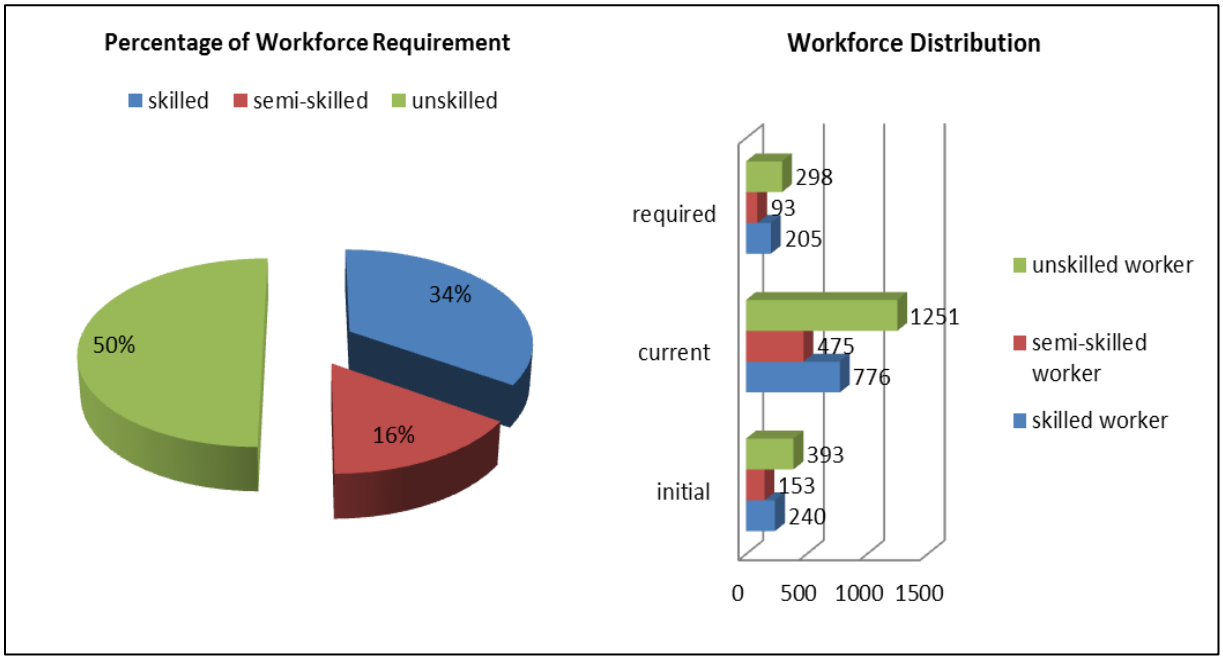


Figure 35 Expected year wise requirement of workforce and current break up of workforce across industries surveyed (Sample)

A total of 24 industries were sampled for the survey to represent seven major sectors in Adilabad district. The above figure shows the availability of skilled, semi-skilled and minimally skilled workers from the time of the establishment of the industries along with their present and required strength. Many sectors reported retention of their skilled worker strengths from the time of establishment right up to the current date. The construction, paper, power generation, textiles, and handicrafts sector seems to have the potential to absorb more skilled workers.

When it came to semi-skilled workers, almost all the industries have expanded their workforce. Only the construction, paper, and power sectors reported the ability to absorb more semi-skilled people.

In the minimally skilled workers category, all sectors except three report retention and an increase in worker strength. The exceptions are paper, power, and textiles. The agriculture, construction, paper and power sectors indicate they can hire more minimally skilled workers.

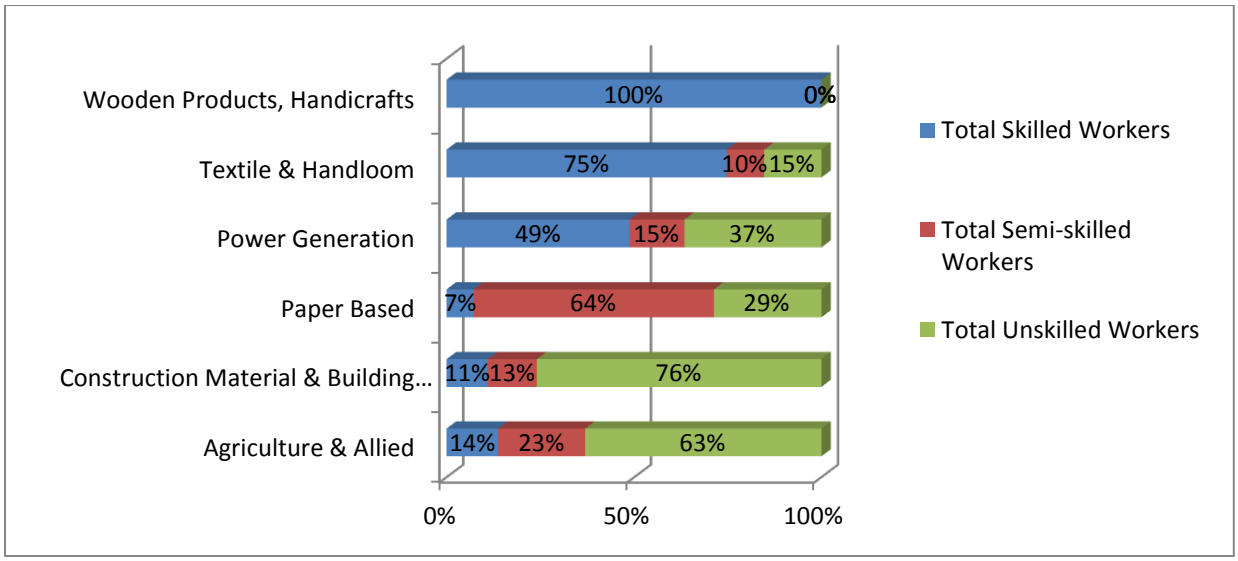


Figure 36 Sector-wise workforce requirement (skilled, semi-skilled & minimally skilled)

Across the seven sectors represented in the sample the proportion of minimally skilled workers is higher, followed by the skilled workers, and the semi-skilled workers at the end. A relatively large strength of semi-skilled and minimally skilled was observed in the construction sector followed by agriculture, and handicrafts sectors.

The number of vacancies reported by the sampled employers for the minimally skilled category was higher than that for skilled and semi-skilled workers. The count of vacancies reported by various employers reflects low potential for absorption of workers in the semi-skilled category. The current strength of workers in the minimally skilled category is highest followed by the semi-skilled and skilled categories.

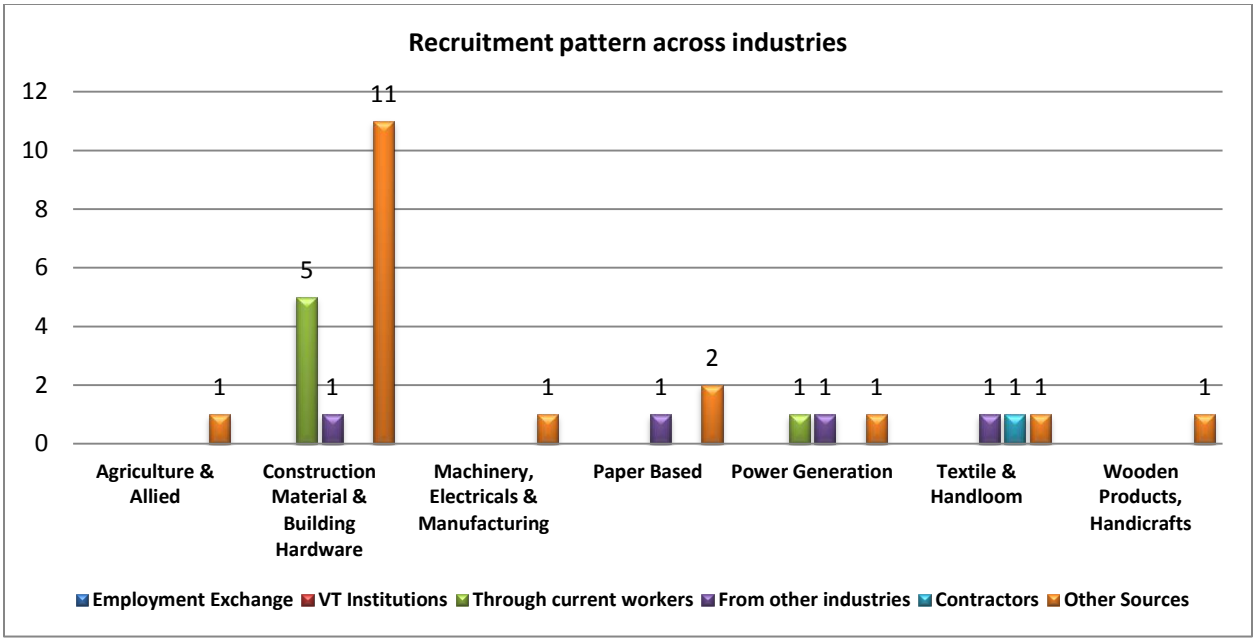


Figure 37 Recruitment pattern across industries

While there are several potential methods for employers to find employees, most are recruited through references provided by existing workers. Other methods of recruitment like the employment exchanges and VTIs have had little success.

Incremental manpower demand over the years till 2021-22

Table 22 Projected percentage of workforce (demand) requirement till 2022 across all the sectors- Adilabad

Industry	2012-2017			2012-2022		
	Skilled	Semi Skilled	Minimally skilled	Skilled	Semi Skilled	Minimally skilled
Agriculture & Allied Activities	-3597	-17985	-68342	-7815	-39076	-148490
Mining & Quarrying	7148	1973	7052	5747	4516	6158
Construction	23684	28905	20506	23831	25533	38129
Tourism, Travel & Hospitality	62694	-4093	-7968	28171	12677	8451
Transportation, Logistics, Warehousing & Packaging	7256	3696	1232	7664	3904	1301
IT & ITES Sector	6066	635	116	6329	663	121
Banking & Financial Services Insurance	11845	1259	179	8852	3983	2656
Real estate	1177	1881	-1171	-31	-33	-50

Other Services	12413	-4949	-5004	-230	-108	-60
Electricity, gas & water supply	170	87	83	170	102	68
Food processing	-8869	-5284	-3585	-8869	-5321	-3548
Coke, refined petroleum and nuclear fuel*	-370	-219	-151	-370	-222	-148
Metals & non metallic products*	170	42	128	170	102	68
Textile & leather	0	-1	1	0	0	0
Wood & Paper products	-750	-589	-161	-750	-450	-300
Total	119038	5359	-57087	62868	6269	-95644

*Manufacturing Sector

As per the table given above, it has been observed that the sectors with the highest incremental demand will be construction followed by tourism, travel & hospitality, BFSI, IT& ITES and transportation & logistics. These sectors have seen a high CAGR in the district over the years and thus are expected to employ large manpower. Apart from these sectors, mining and quarrying will remain has an important industry in terms of growth and employment.

Overall, the district has a high demand of skilled and semi-skilled manpower and declining demand for minimally skilled manpower.

4.1.9. Skill Gap Analysis

The skill gap analysis was performed by undertaking a primary research on the employers through the survey instrument. A structured questionnaire designed to map the current and the future skill requirements of the industries identified in the district on the basis of manpower absorption and production in high growth industries. The analysis factored in industry linkages with vocational training institutes, employment exchange and with other sources for workforce absorption and retention. It highlights the mismatch between industry skill requirements and the skill pool emerging. The skill gap for the district for 2012-17 to 2012-22 based on projections is represented in the table below.

Table 23 Representation of projected Skilled, Semi-skilled & Minimally skilled workforce trend 2021-2022

Workforce Demand & Supply Gap						
	2012-2017			2017-2022		
Sectors	**Skilled**	**Semi-Skilled**	**Unskilled**	**Skilled**	**Semi-Skilled**	**Unskilled**
Demand	119038	5359	-57087	62868	6269	-95644
Supply	6924	7405	121218	3029	12555	112637
Gap	112114	-2046	-178305	59839	-6286	-208281

As represented above, the district needs approximately 1,93,534 skilled youth over the period of 10 years. The focus of the district would be to engage more minimally skilled workers to become skilled through training and further enhance the skilled workforce base across emerging services.

4.1.10 Youth Aspirations

The youth survey study was primarily undertaken through the survey instrument. Structured questionnaires were designed to capture youth aspiration and perceptions under the categories of employed, self-employed, unemployed, and trainees.

Out of those surveyed, 98.3 percent of the youth covered were college educated and only 13.3 percent had completed high school education. All the respondents were covered from registered private VTIs.

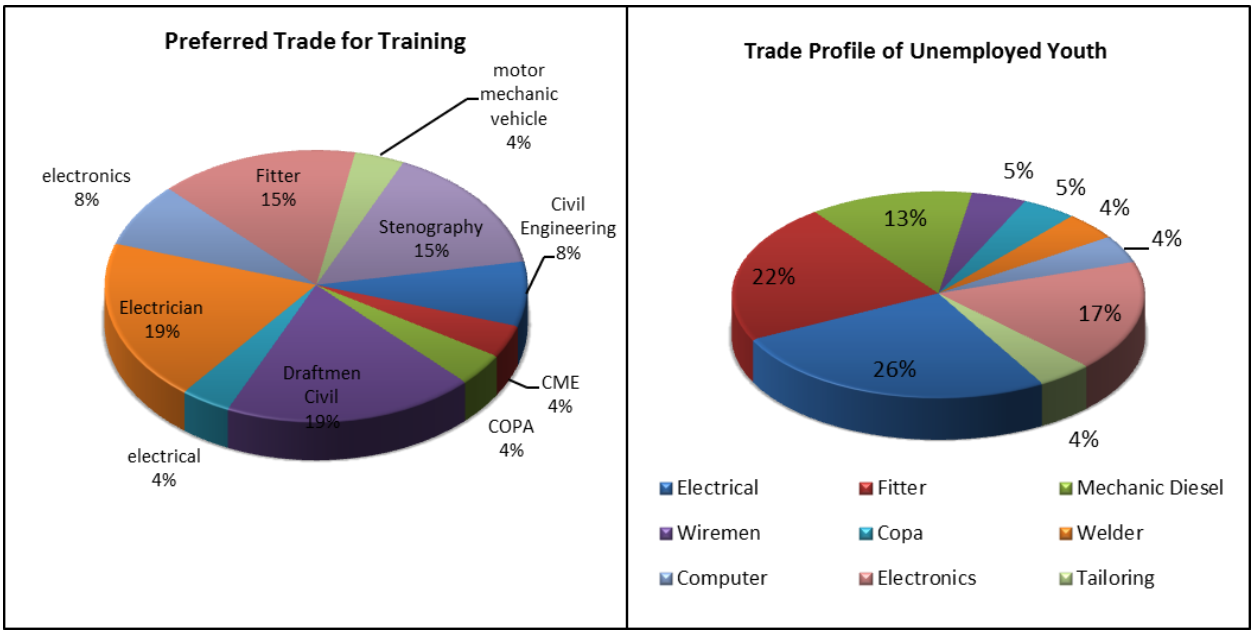
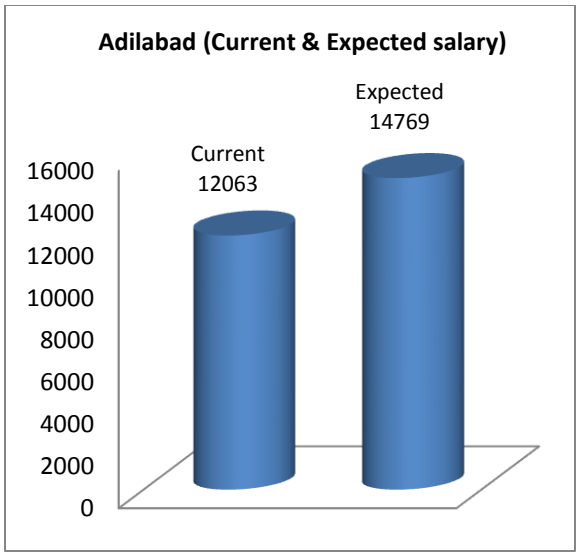


Figure 38 Profile of respondents (trainee, self-employed & unemployed youth) by trade

Out of all the trades, the electricians' trade and draftsmen course was preferred the most. Most of the self-employed youth practiced the electricians' trade. However, the supply of electricians and fitters was more than the demand. Not surprisingly, most of the surveyed unemployed youth were from these trades. In the unemployed youth, the maximum current population worked in electrical field and the smallest numbers were welders.



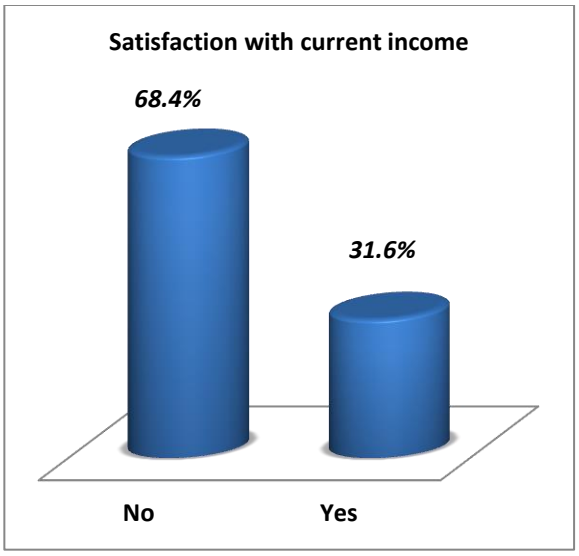


Figure 39 Salary wise youth's perception

A minimum average hike of INR 2706 is expected across different trades. Out of the respondents, 68.4 percent appear unsatisfied with the current remuneration received. Also 54 percent of the respondents reported that they were not receiving increment at their workplace.

Parameters considered by District's youth while opting for vocational training

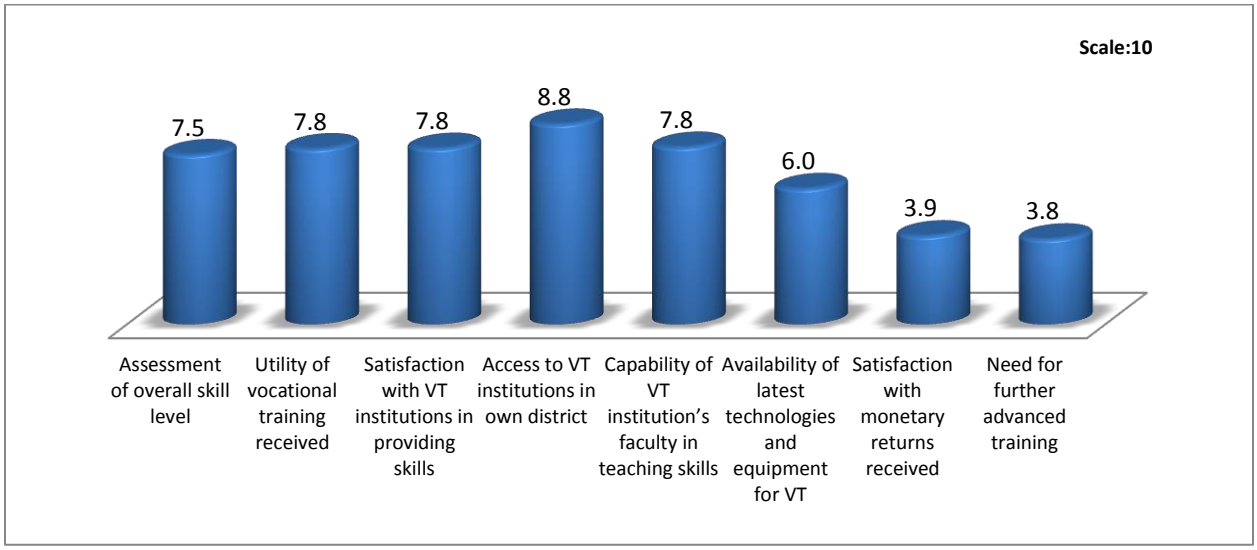


Figure 40 Adilabad Youth's perception, need and aspirations

The youth surveyed assessed their current skill levels at a rating of 7.5 across on a scale of 10. Though they rated the existing training facilities at 7.8, and access (financial and physical) to them at 8.8, respondents did not seem motivated to upgrade their skills. The main reason for this seems to be the fact that the youth are not satisfied with their current salaries.

4.1.11 Recommendations: Skill Development Eco System

Adilabad district is largely focused on agricultural products. Presently, large population of the district is engaged in agriculture and related industries. But in years to come, incremental requirement is expected in other sectors such as BFSI, IT/IES, construction, transportation and logistics are fast picking up the in the district.

Sectors	Growth Opportunities
Construction	• The construction sector is the highest contributor to the economy (41 percent) in secondary sector in 2009-10. • The district will require approx. 1.01 lakh skilled and semi-skilled manpower till 2021-22.
BFSI	• BFSI is expected to contribute significantly to the creation of jobs in skilled segment. • The sector has witnessed a growth rate (CAGR) of approx. 14 percent from 2004-05 till 2009-10. • Trainings is required in new financial products, data entry and insurance sector. Special focus should be on rural banking.
Transportation, Logistics, Warehousing & Packaging	• The sector has witnessed a CAGR of approx. 15.9 percent from 2004-05 till 2009-10. • Currently no courses are being focused on this sector thus more focus on training is required in this sector.
IT/ITES	• The sector has witnessed a CAGR of approx. 15.9 percent from 2004-05 till 2009-10.

Figure 41 Key growth sectors in the district

The key stakeholders' contribution in enabling to achieve the target (as shown in the skill gap) would be as follows:

State: Adilabad's ranks fourth lowest in the literacy rate in the State and suffers from high dropout rate. Furthermore, the female literacy in the district is very low.

Action Plan:

i. Major focus of the State should be encouraging courses which target youth with low educational qualifications and provide them with required certifications to enable them to get absorbed in formal sector.
ii. State also needs to encourage enrolment of girls in vocational training by introducing favorable schemes and better infrastructure such as girls' hostels etc.

***Training Partners*:** Owing the expected shift from agriculture sector to other industry of the district's manpower, training providers need to focus on specialized trades.

Action Plan

i. Identify current skill set of the youth and provide them platform for horizontal mobility.
ii. Focus on building linkages with the industry.
iii. Build curriculum to enable youth for horizontal mobility in upcoming sector.
iv. Identify upcoming Industries and build customized courses as per their requirements.

Industries:

Action Plan:

v. Collaborate with skill development institutes for updating course content & creating linkages for placement.
vi. Industry needs to reward skilled manpower with higher wages. Promotions norms should be formed based of higher skill levels, encouraging the current semi-skilled and minimally skilled workers to take up-skilled courses.

NSDC: NSDC would be an enabler to lead the training partners in setting up skill development centres in upcoming sectors.

Action Plan:

vii. Promote training providers to train in multiple skills.
viii. Greater emphasis should be on trades which can support self-employment in agro based industries.
ix. Develop platform to enable people in vertical and horizontal mobility in various skills.

4.2 Anantapur

The subsequent section analyzes the economic base and the occupational structure of Anantapur district. It identifies the high impact industries and skills needed to match the expected growth.

The latter section presents the projected workforce demand and supply in the coming years and the optimization plan for the district.

4.2 Anantapur

4.2.1 Anantapur District Demographic Profile

Anantapur at a Glance				
Population	**Anantapur District**		**Andhra Pradesh**	**Remarks**
	Provisional Census 2011	**Census 2001**	**Provisional Census 2011**	
Total Population	4083315	3640478	84665533	
Total Population - Male	2064928	1859588	42509881	
Total Population - Female	2018387	1780890	42155652	
Population Growth	12.16%	14.34%	11.10	
Area Sq. Km	19130		275100	
Density of Population (Density/Area sq.Km)	213	190	308	
Proportion of Andhra Pradesh population	4.82%	4.78%		
Decadal growth of population (2001 - 2011)	12.16%	14.34%	11.10%	
Literacy rate	64.28	56.13	67.66	
Male Literacy	74.09	68.38	75.56	
Female Literacy	54.31	4.34	59.74	
Sex ratio (per 1000)	977	958	992	
Worker population participation rate		48.8	45.7	Census 2001
Cultivators to total workers		29.8	22.52	Census 2001
Agriculture laborer in workforce		37.8	39.64	Census 2001
Household workers		5.80	4.71	Census 2001
Other industry and services		26.7	33.13	Census 2001

Table 24 Anantapur district at a glance

Anantapur is the largest district in Andhra Pradesh. The total area of the district is 19,130 sq. km, which accounts for 4.82 percent of the total area of the state. It is pertinent to note that among 23 districts of the state, Anantapur is the third most populated district. The economy is based on partial industrialization, but still remains dependent on agriculture. The district is well connected with Karnataka's capital city Bangalore. The district falls behind in some parameters, with a low human development index of 0.458 compared to the state figure of 0.537. However, the percentage of the urban population to the

total population in the district is 28.09 percent in 2011 as compared to 25.26 percent in 2001. The district also reports a per capita income of INR 33,712, which is higher than the state's per capita income of INR 31,847 at constant prices 2004-05.

As per provisional Census 2011 data, Anantapur accounts for a population of 4.083 million, with a sex ratio of 977 females per 1,000 male compared to 2001 Census figure of 958. The literacy rate of Anantapur district in 2011 was 64.28 percent compared to 56.13 percent in 2001. Gender wise, around 74.09 percent of males and 54.31 percent of females are literates.

The total workforce participation rate in Anantapur district is 48.8 percent. The total population of working males is 57.9 percent against a lower female working population rate of 39.5 percent. The proportion of the female working population in Anantapur district is 5.4 percentage points higher than state figure.

Out of the total working population, main workers comprise 40.4 percent of the total population followed by the non-workers at 51.2 percent and marginal workers at 8.4 percent. Out of the population of main workers, 33.17 percent are engaged as cultivators, followed by 31.42 percent who are agricultural laborers, and 29.56 percent who work in other industries. Household industries account for another 5.84 percent of the main workers. It is pertinent to note that the district is the fifth largest in the state and has the highest proportion of the workers engaged as cultivators. It also ranks fourth when it comes to workers engaged in household industries.

4.2.2 Economic Profile

The Gross District Domestic Product (GDDP) of Anantapur has grown at a growth rate (CAGR) of 7.18 percent from 2004-05 (INR 928621 lakh) till 2009-10 (INR 1408056 lakh). In 2009-10, tertiary sector contributed highest to the growth of GDDP at 50.48 percent primarily due to the contribution of trade, hotels and restaurants sector.

As indicated in the graph below, primary sector has shown little growth over the years at 3.85 percent from 2004-04 till 2009-10. The growth in the secondary sector has been impressive. The secondary has grown at 11.09 percent from 2004-05 till 2009-10 followed by tertiary sector at 7.52 percent.

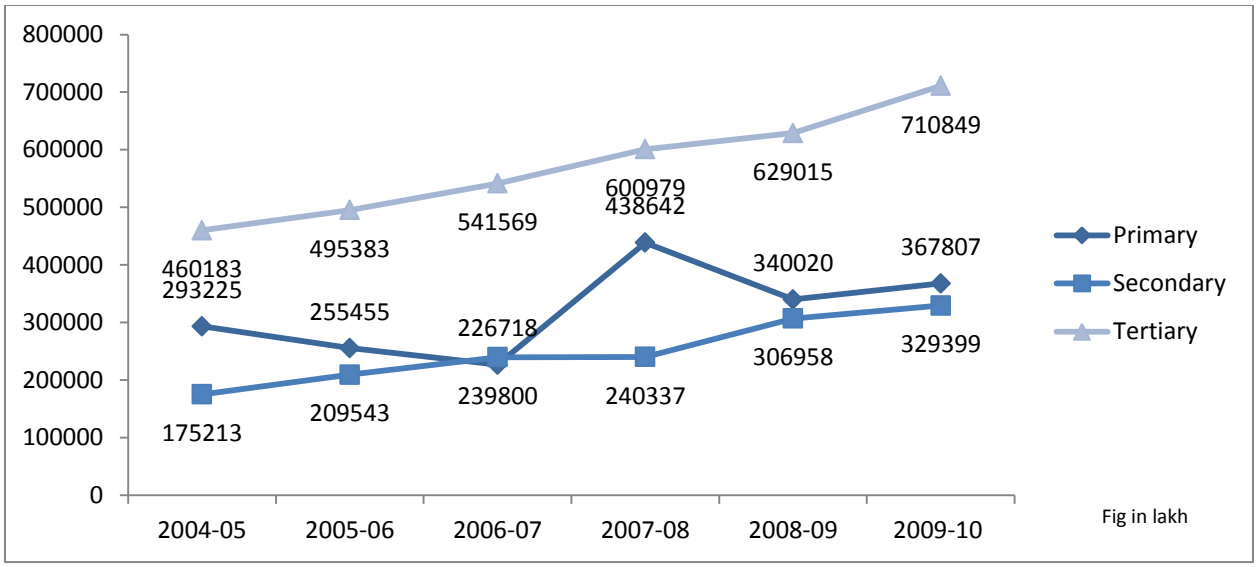


Figure 42 Sector level contribution to GDDP, 2009-10

Primary Sector

The primary sector contributed 26.12 percent to the GDDP in 2009-10. The CAGR of primary sector has been 3.26 percent with agriculture sector growing by just 1.39 percent from 2004-05 till 2009-10. Fishing has grown by 26.77 percent and mining & quarrying grew at 20.20 percent over the years from 2004-05 till 2009-10.

Ground nut is the major crop of the district and is cultivated in 7.2 hectares on the district land. The district is also suitable to growing horticultural products.

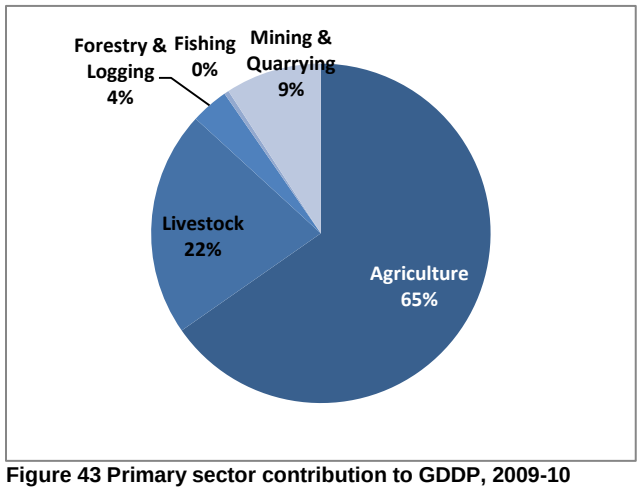


Figure 43 Primary sector contribution to GDDP, 2009-10

Secondary Sector

The secondary sector contributed 23.29 percent to the GDDP in 2009-10. The CAGR of secondary sector has been 11.09 percent from 2004-05 till 2009-10. The CAGR of registered manufacturing sector has been the largest at 38 percent, followed by construction sector at 12 percent, unregistered manufacturing sector at 4 percent and electricity, gas and water supply at 1 percent.

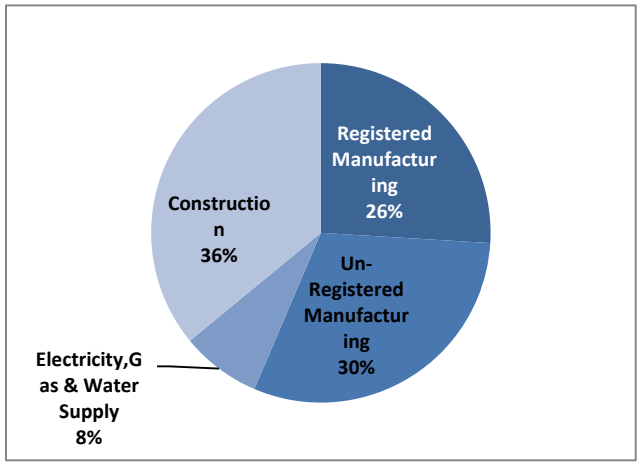
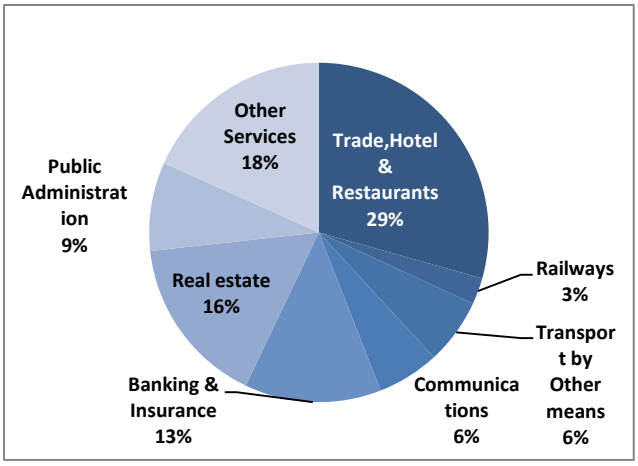


Figure 44 Secondary Sector contribution to GDDP, 2009-10

Tertiary Sector

The tertiary sector contributed 50.48 percent to the GDDP in 2009-10. The CAGR of

tertiary sector has been 7.52 percent from 2004-05 till 2009-10. Trade, hotels and restaurants have been the highest contributors to the tertiary sector.



The district has several temples of historical relevance attract a high amount of tourist every year. Dharmavaram, is a famous attraction site for its architecture and silk weaving industry.

Industry Mapping

The district is dominated by minerals and coal-based industries and has adequate water and power supplies. Local industry contributes a substantial 4.05 percent to the state GDP at constant prices from 2004-05 to 2009-10.

Agriculture remains the predominant activity, with 80 percent of total workers engaged in agriculture, either as cultivators or agricultural laborers. In urban areas, about 11 percent of the workforce is engaged in agriculture. Mining is also an important activity in Anantapur, as the district is endowed with rich deposits of iron ore, limestone, and other minerals. There are more than fifty small-scale industrial units in the district, of which nearly half are to do with granite. There is also some cement and steel industry in the district

Large & Medium Industries

There are 55 large and medium scale industries in Anantapur, with an investment of INR 24,015.9 million providing employment to 7,047 people. Most of these industries are based on agro-processing, cement, and iron. A few pockets of the district are known for their textile and handlooms. However, the greatest scope for growth is still in agro-processing, cements, and iron.

Small Scale Industries

There are more 5,853 small-scale industrial units in the district with an investment of INR 2,781.3 million and employing 29,371 people. About one half of these industries are minerals-based. There are also cement and steel-based units

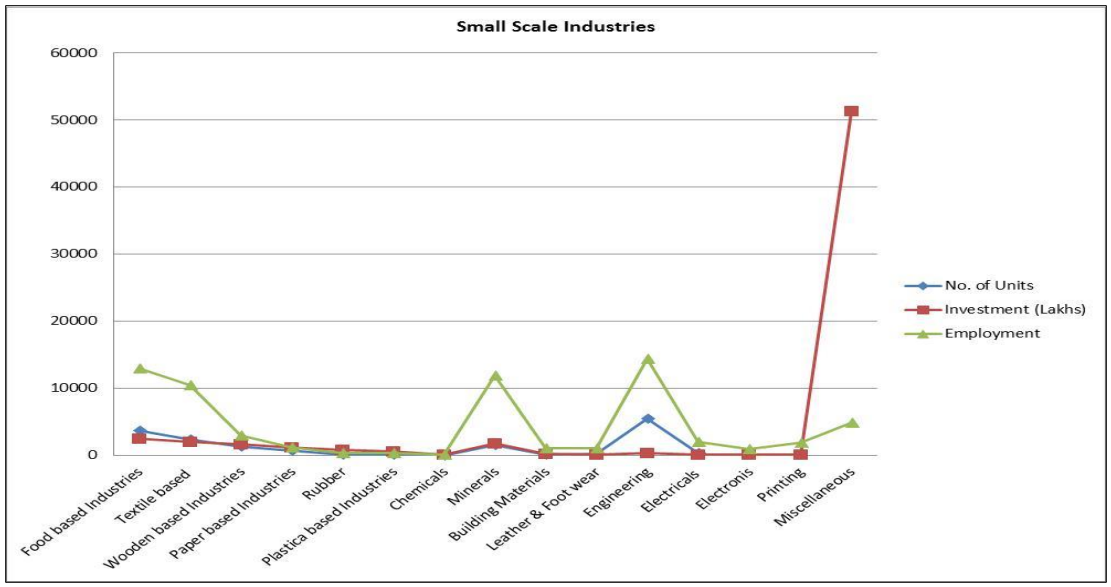


Figure 46 Small scale Industries, DIC

4.2.3 Education Infrastructure and Utilization

Table 25 Schools with enrolment detail, source: Statistical Abstract, Andhra Pradesh

Schools	Total Number	No. of Enrollments
Primary Schools	3160	220378
Upper Primary Schools	957	134751
Secondary Schools	720	230803
Higher Secondary Schools	7	4890

Anantapur has a relatively low literacy rate despite having many schools. The district also possesses well-established infrastructure for imparting technical and non-technical education for skill up gradation among the youths.

As per provisional Census 2011, the literacy rate of Anantapur district in 2011 is 64.28 percent compared to 56.13 percent in 2001. As per Census 2001, the total number of graduates and above in Anantapur district is recorded as 1, 02,827 persons, constituting 3.63 percent of Andhra Pradesh's graduates. It is interesting to note that out of the total population of graduates and above, 76 percent were male.

Table 26 Education Statistics Source: Statistical Abstract, Andhra Pradesh – 2011

Educational Institutions	Total Number
ITIs	35
Polytechnics	14
Engineering Colleges	20
Medical/nurses Colleges	1
Pharmacy Colleges	2

Keeping children in school remains a challenge for Anantapur. The gross enrolment ratio for classes I-V is 95.69 percent followed by 81.53 percent for classes VI – VIII and 63.85 percent for classes VIII – X. In contrast, the figures for the state as a whole are 100.46 percent, 84.76 percent, and 69.51 percent respectively. The dropout rates establish an increasing trend of 46.90 percent over classes I-X. Anantapur needs to focus on improving the quality of its education, increasing the number of schools, providing incentives to the best teachers, and improving facilities for students, particularly girls.

There are a total of 20 engineering colleges in Anantapur. Only three of these are government colleges and the rest are private. These engineering colleges offer a variety of courses and have a combined intake capacity of approximately 4,723 students per year. Major courses offered include computer science and engineering courses in electronics, telecom, computer engineering, electrical, mechanical engineering, and instrumentation. Anantapur also has 14 polytechnic colleges with a total intake capacity of 2,070 students per annum.

4.2.4 VTI's demand across various trades in Anantapur district

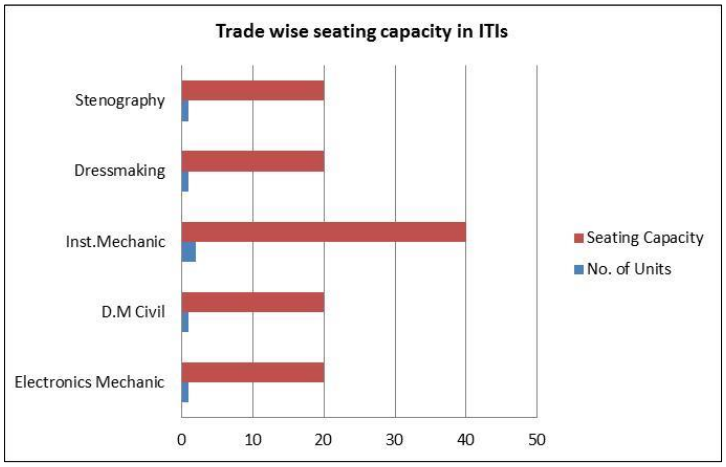


Table 27 Trade wise seating capacity in ITIs in 2012

There are 38 vocational training institutes in the district. The overall intake of all ITIs and ITCs is around 26,767 students per annum. Out of these vocational training institutes, only six are government and the rest are private. These institutes impart training in various trades ranging from the electrician profession to dressmaking. New trades are introduced based on industry demand.

In Anantapur district, the instrument mechanic trade is in demand. All the trades and units are affiliated with the National Council of Vocational Training of the Director.

Table 28 Courses offered in government and private VTIs (sample)

Government VTI Trades	Private VTI Trades
Civil	Automobile
Computer	Civil
COPA	COPA
DM/CIVIL	DM/Civil
Electrical	Electrical
Electronic Mechanic	Fitter
Fitter	Plumber
Instrumentation	Soft Skills
Mechanic Diesel	Welder
Mechanic Motor Vehicle	Wireman
Welder	
Fitter	

The government VTIs sampled for this study offer 13 different trades for training, while the private VTIs offer 11 trades. Soft skills courses, which seemed to be much in demand by industry, were only offered by private VTIs with very few seats available .The electrical trade appears to be the most popular course in both government and private VTIs.

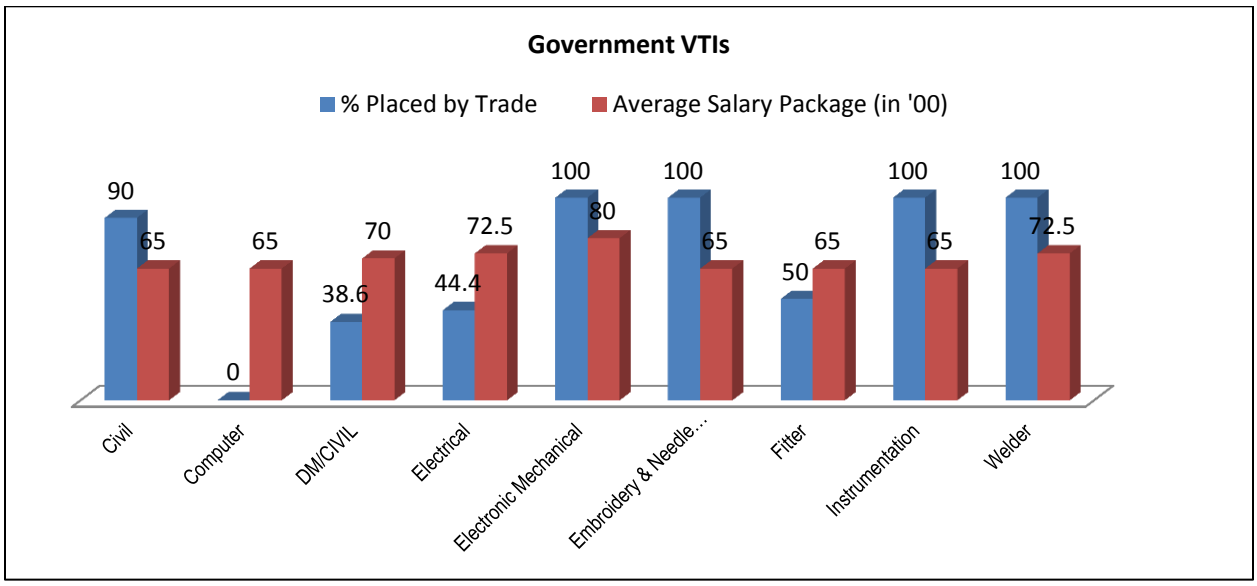


Figure 47 Average salary and percentage placement in government VTIs

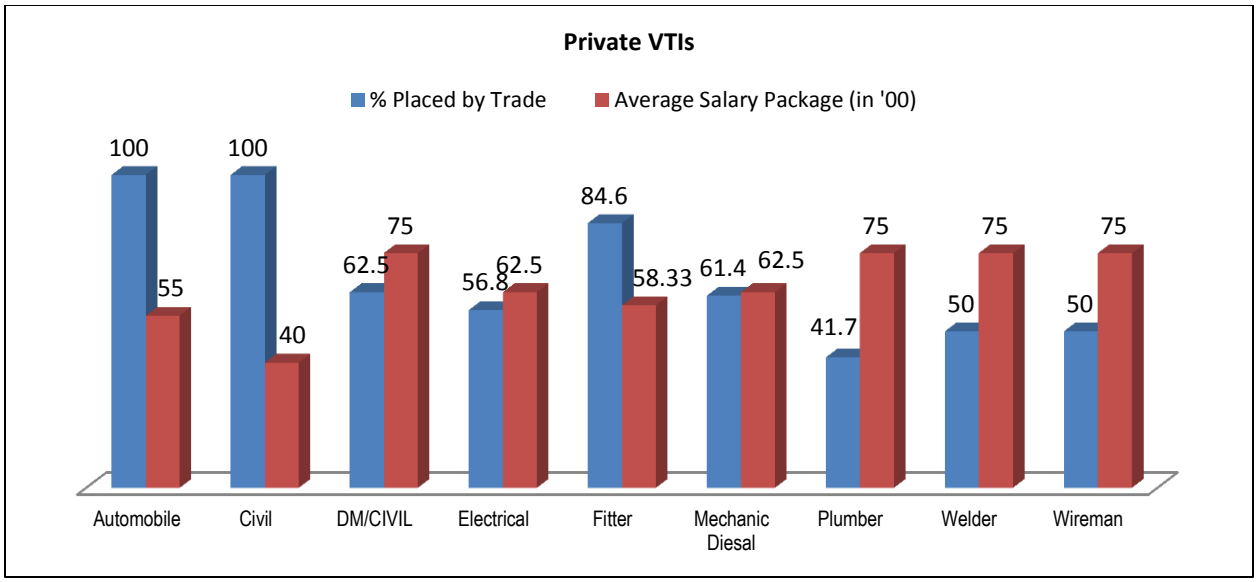


Figure 48 Average salary and percentage placement in government and private VTIs

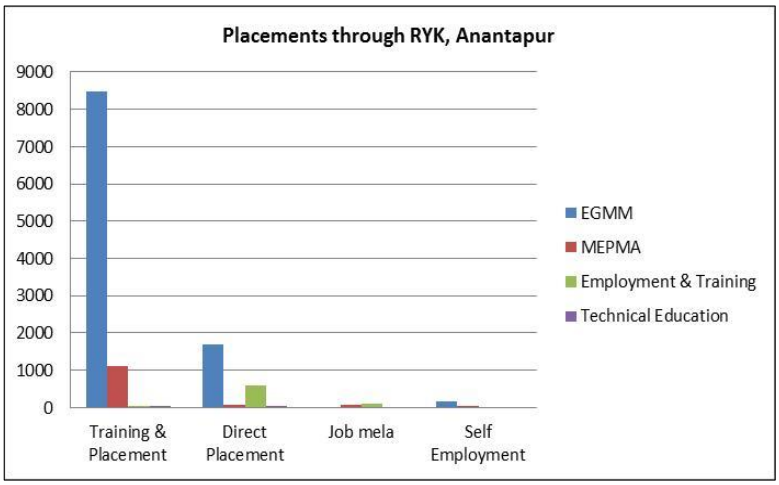
Table 29 Approved & Actual staff in VTIs, 2012

Government VTIs		
Positions	Approved	Actual
Managerial	16	11
Academic	40	34
Support	11	11
Private VTIs		
Positions	Approved	Actual
Managerial	30	29
Academic	62	58
Support	13	13

Government VTIs in Anantapur have a stronger placement record than many other districts. Salaries at the Government VTIs are better than private VTIs with highest salary being paid to the Electronics Mechanic (INR 8000) profession. Placements of trainees from the government VTIs largely take place through campus interviews. The employment exchanges do not appear to be playing a major role in placements of candidates.

Staffing also remains a challenge at the training institutes. Both government and private ITIs face shortfalls of academic staff. However, government ITIs also has vacancies among their managerial staff, making their work much harder.

4.2.5 Placement & Absorption Trend



Anantapur district has just one employment exchange. The number of candidates in the live register during 2009-10 was 75,172. But out of that total, only around 33 got placed through the employment exchange. Another potential avenue for placements is the Rajiv Yuva Kiranalu mission,

Figure 49 Placements through RYK; Source: RYK state level placements monitoring report, June 2012

which focuses on helping educated youth find jobs. However, the mission's Job Mela has had very little success and most placements continue to happen through direct industry linkages.

4.2.6 Sector wise mapping of industries in Anantapur

Anantapur is an important industrial center in the state of Andhra Pradesh. Looking at existing trends, sectors like minerals and construction appear to be the prime movers of development in Anantapur. There are significant employment opportunities for the workforce across the skilled, semi-skilled and minimally skilled categories.

Industry wise Sector Mapping					
NSDC (High growth sectors)	**Units**	**Employment**	**High**	**Medium**	**Low**
Automobile & Auto components	20	691			
Food Processing (Food beverages and Tobacco products)	227	2510			
Electronics Hardware	29	1385			
Textiles and Garments	49	4172			
IT					
Chemicals and Pharmaceuticals	16	638			
Tourism, Hospitality and Travel	1123				
Transportation/Logistics/Warehousing and Packaging	10	155			
Healthcare	111	273			
Education/ Skill Development	47	336			
Banking/ Insurance and Finance	293				
Manufacture of Wooden furniture	97	421			
Paper and Publication	5	321			
Petroleum	1	23			
Mining & Quarrying	62	620			
Iron and Steel industry	4	5250			
Minerals based industries	443	6934			
Service based industries (Repairs & maintenance: R&D)	27	1099			

Table 30 Sector wise mapping of Industries; Source: DIC

High	Units>200, emp>1000 - all applicable
Medium	Units>100, emp>500 - all applicable
Low	Units>10,emp>30 - all applicable

The above spread of industries clearly indicates that the secondary and tertiary sectors are growing in prominence. There is huge potential for growth agro industries, minerals and construction. A marginal trend of growing workforce demand can also be seen in emerging sectors like the manufacturing and real estate. Some of the leading players in this district are M/S Shanti Castings Ltd., M/s Ultra Tech, Penna Cements Ltd., Kalyani Gerdu Ltd. and many more

In order to understand the trend in the existing market and industrial set up, a stratified sample of industries from nine sectors was selected. The selection ensured diversity among the industries.

Table 31 Approved & Actual staff in VTIs (sample)

Sector	No. of Industries Sampled
Chemical & chemical products	4
Construction Material & Building Hardware	1
Dairy Milk Products	2
Machinery, Electricals & Manufacturing	1
Mines, Metals & Minerals	4
Poly Products	1
Service Sector	4
Textile & Handloom	4
Transportation, Logistics, ware housing & packaging	1

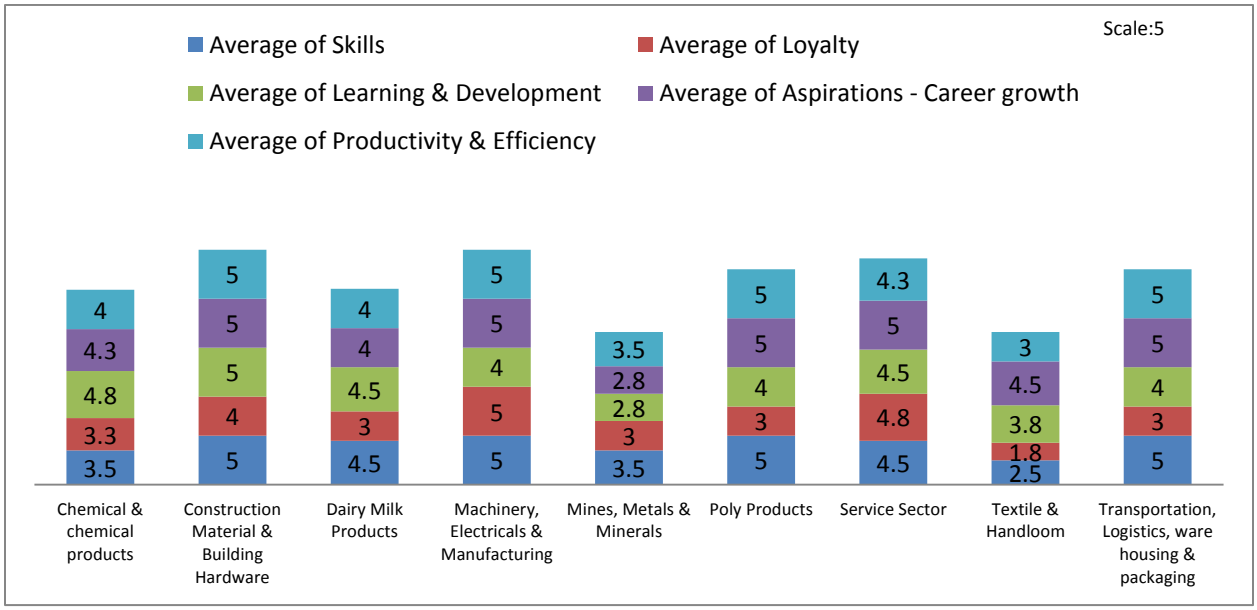


Figure 50 Employers demands in terms of expectations from workers

When employers were asked to rate their expectation from their workers on a scale of five, employers from the most of the sector reflected a high desire for worker characteristics. Only, employers in the mining sector and textile sectors have average expectation from their employees. Most of the employers gave ratings between 3.5 and 5.0, which indicates relatively high expectations.

4.2.7 Composition of workforce

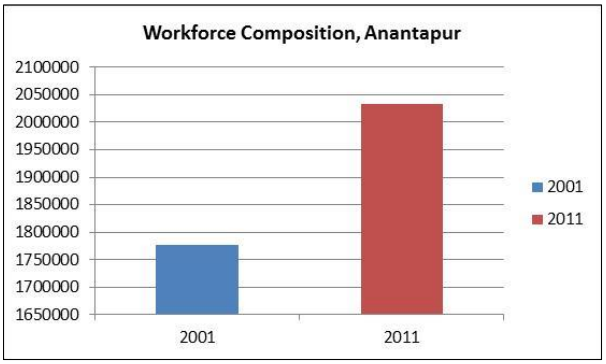


Figure 51 Projected Workforce; Source: Deputy Commissioner of Labor, 2012

Anantapur has the fifth highest position in Andhra Pradesh when it comes to the total working population. Looking at the present resources and skill sets of the workforce, the secondary and territory sectors are likely to play a key role in coming years.

The working population in Anantapur is expected to raise by 14 percent against the Census 2001 data. It is pertinent to note that the total workforce participation rate in the district is 48.8 percent. The total male working population is 57.9 percent against the female working population of 39.5 percent.

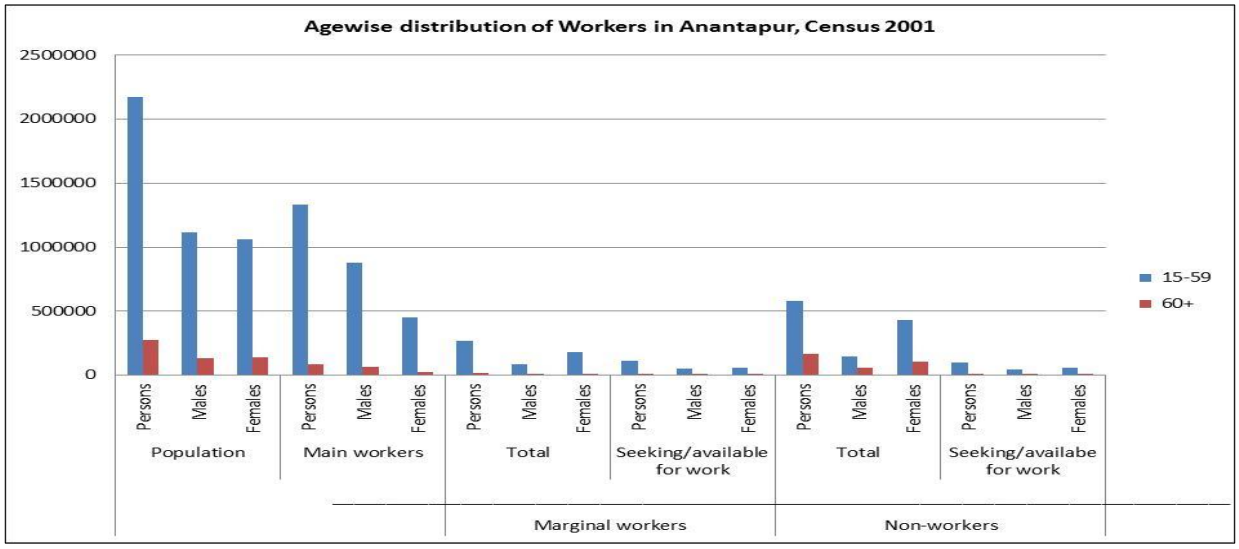


Figure 52 Age-wise distribution of workers, Source: Deputy commissioner of Labor 2012

Despite the lower percentage of women, it is pertinent to note that the proportion of the female in total working population in Anantapur district is 5.4 percent, which is higher than the state-wide average.

Out of the total working population, main workers comprise 40.4 percent of the total population, followed by marginal workers at 8.4 percent and non-workers at 51.2 percent. Out of the population of main workers, 33.17 percent are cultivators, followed by 31.42 percent who are agricultural laborers, and 29.56 percent who are in other industries and 5.84 percent who work in household industries. The major proportion of main workers is engaged as cultivators and there has been declining trend observed in agricultural economic activity. It has been estimated that the major proportion of workers in the age group of 15-59 years fall into the category of

main workers. Interestingly, among the non-workers and marginal workers, females in the age group of 15 - 59 outnumber the males.

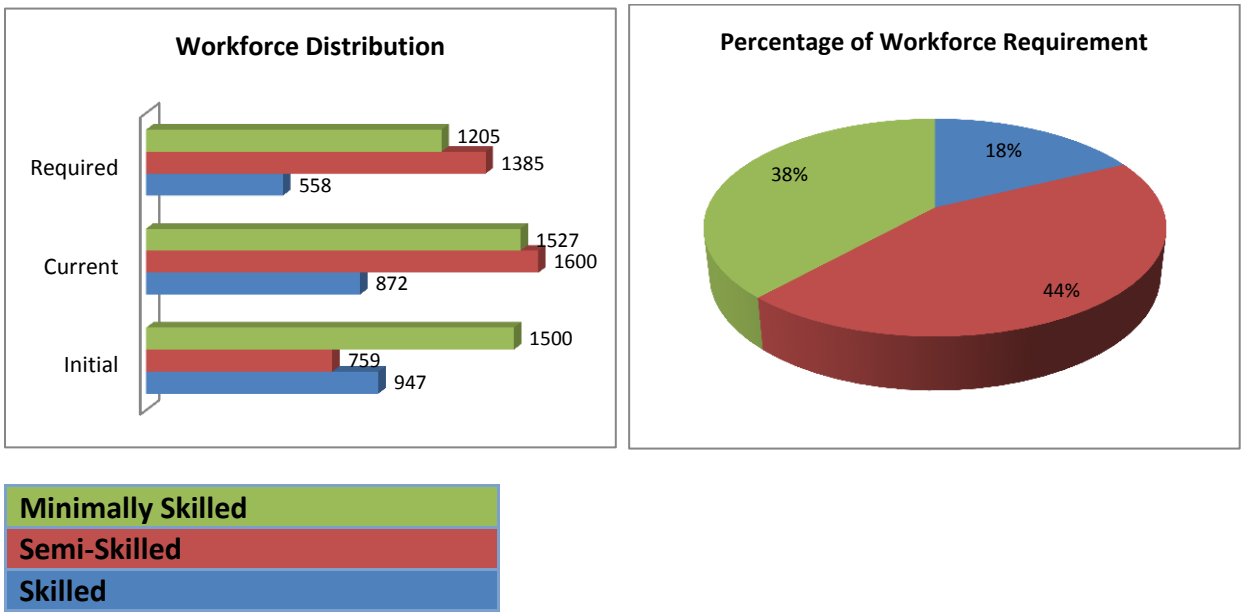


Figure 53 Workforce distributions in sampled industries in terms of skilling as per sample survey

We surveyed a total of 22 industries across nine major sectors to predict future skill requirements. The above figure shows the availability of skilled, semi-skilled and minimally skilled workers at the time of establishment of industries, at the present time, and the projected future requirements. Many of the industries surveyed reported retention of their workers since the time of establishments. The textiles and handloom sector has expanded its workforce of semi-skilled staff remarkably.

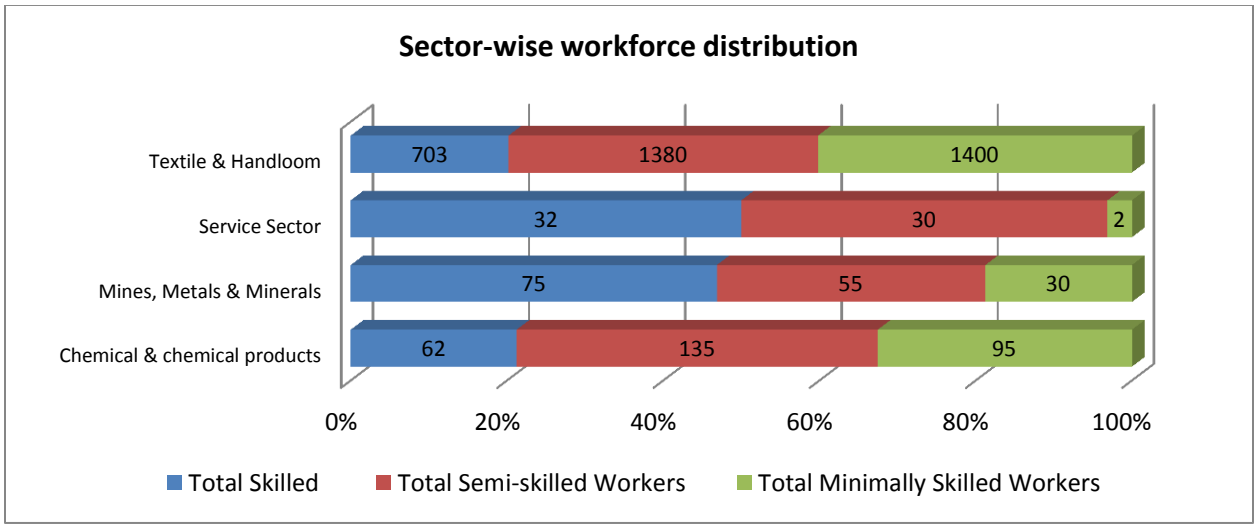


Figure 54 Sector wise current workforce distribution pattern across industries

It can be observed that the proportions of the skilled and semi-skilled workforce were much greater than the minimally skilled workforce. Over the years, this trend is expected to continue in the district.

Incremental manpower demand over the years till 2021-22

	2012-2017			2017-2022		
Industry	**Skilled**	**Semi Skilled**	**Minimally Skilled**	**Skilled**	**Semi Skilled**	**Minimally Skilled**
Agriculture & Allied Activities	1125	5625	21375	-3785	-18924	-71910
Mining & Quarrying	5361	2634	5481	5158	4053	5527
Construction	33126	40537	28145	32985	35341	52777
Tourism, Travel & Hospitality	63047	-10433	-13249	18302	8236	5491
Transportation, Logistics, Warehousing & Packaging	-2200	-1121	-374	-3315	-1689	-563
IT & ITES Sector	7112	745	136	7074	741	135
Banking & Financial Services Insurance	18446	1921	246	13715	6172	4114
Real estate	1744	2786	-1726	-41	-44	-65
Other Services	12877	-8708	-8106	-5499	-2513	-1565
Electricity, gas & water supply	40	23	17	40	24	16
Food processing	-478	-289	-189	-478	-287	-191
Chemicals & Pharmaceuticals*	863	483	379	863	518	345
Rubber and plastic products*	574	303	271	574	344	230
Auto & Auto components*	836	448	388	836	502	335
Metals & non metallic products*	3273	1723	1549	3273	1964	1309
Textile & leather	1519	719	800	1519	911	608
Wood & Paper products	163	93	69	163	98	65
Total	**147427**	**37488**	**35213**	**71385**	**35447**	**-3344**

Table 32 Projected percentage of incremental workforce (demand) requirement till 2022 across all the sectors- Anantapur;

*Manufacturing sectors

As per the table given above, it has been observed that the maximum incremental demand shall be in the construction, tourism, travel & hospitality, BFSI, mining and quarrying and IT/ITES

sector. In manufacturing sector, metals & nonmetallic products and textiles production will witness incremental manpower requirement.

4.2.8 Skill Gap Analysis

The skill gap analysis was performed by undertaking a survey. A structured questionnaire was designed to map current and the future skill requirements of the industries identified in Anantapur district. The analysis factored in industry linkages with vocational training institutes, the employment exchange, and other sources for workforce absorption and retention.

Overall, the supply of minimally skilled labor exceeds demand in all the years examined. The supply of skilled and semi-skilled manpower remains low as per the industry demand.

Incremental workforce Demand & Supply Gap						
	2012-2017			2017-2022		
Sectors	Skilled	Semi-Skilled	Unskilled	Skilled	Semi-Skilled	Unskilled
Demand	147427	37488	35213	71385	35447	-3344
Supply	12626	12307	205192	6569	20384	200677
Gap	134802	25181	-169978	64816	15063	-204021

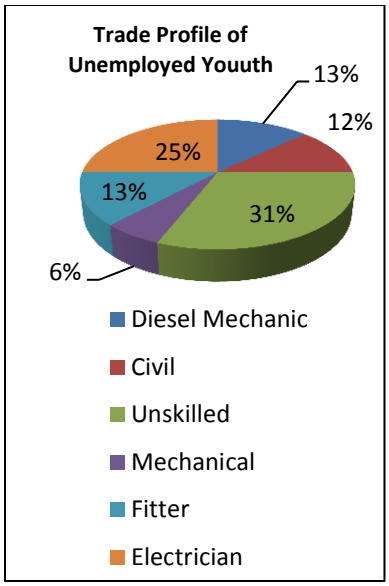
Table 33 Representation of projected incremental Skilled/ Semi-skilled & Minimally skilled workforce trend 2011-2022

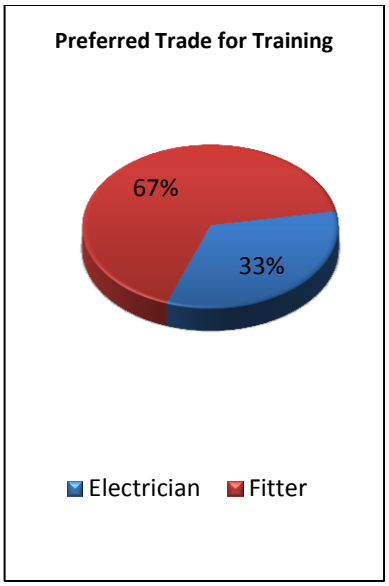
As per the in-depth interviews conducted with senior functionaries of various industries and government departments, demand for skilled manpower will be high over the next years. Currently, industries are not rewarding skilled manpower will better salaries. It was also mentioned that although there are training facilities in the district, more courses designed for trades serving small & medium industries such as marketing, sales, exports etc. should be offered.

4.2.9 Youth Aspirations

The youth survey study was primarily undertaken through the survey instrument. Structured questionnaires were designed to capture youth aspirations and perceptions. The respondents were classified as employed, self-employed, unemployed, and trainees. Interviews were scheduled with youth and focus group discussions in colleges were used to draw inferences about their perceptions.

As many as 63.3 percent of the respondents were college educated, the rest had completed high school education. Out of the respondents who were trainees, only 7.7 percent were undergoing training at government VTIs, while the rest were at private VTIs.





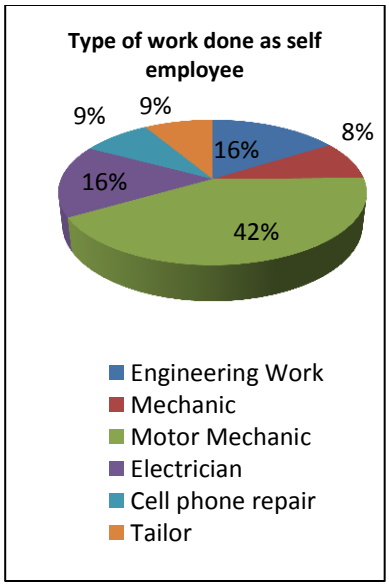


Figure 55 Profile of respondent s (Trainee, self employed and unemployed youth) by trade in sample of Anantapur

Based on perceived demand in the market, the fitter course emerged as the most popular among the youth, with 67 percent opting for it. The remaining 33 percent chose the course for electricians. Out of the self-employed youth, 42 percent were motor mechanics. Most of the unemployed youth had not been formally trained.

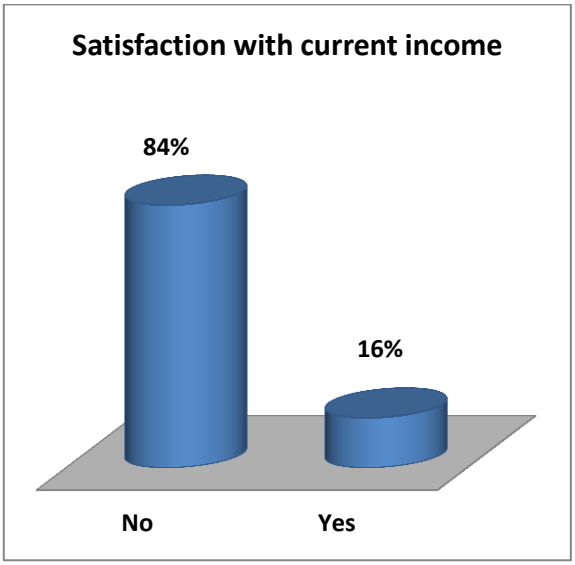


Figure 56 Salary wise youth's perception

A large section of surveyed youth were not satisfied with the current salaries and expected a salary increment of an average 60 percent from the current levels.

Parameters considered by District's youth while opting for vocational training

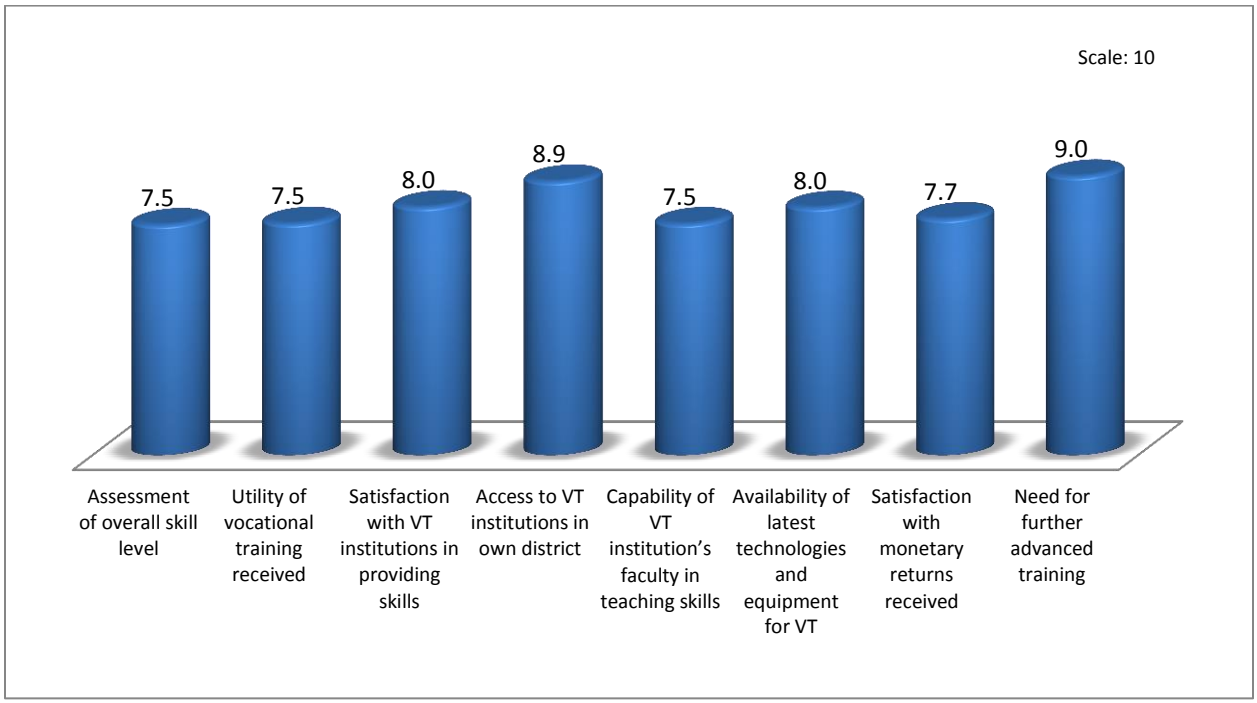


Figure 57 Perception, needs and aspirations of youth in Anantapur

Unlike in many other districts, Anantapur youth seem quite satisfied with their current skill levels. They also rate their local VTIs highly. Although 84 percent of the surveyed youth were not satisfied with their current salaries, on average expecting a salary hike of INR 7,364. Not surprisingly, the district's youth appear to be committed to upgrading their skills. The respondents rated the need for further training at 9 on a scale of 10. The sampled youth appeared to be reasonably knowledgeable about the VTIs present in Anantapur and the courses available to them.

4.1.10 Recommendations: Skill Development Eco System

Anantapur is the largest district in the state, which means that the supply of manpower is vast and the need for skilled workers is acute. The district requires entrepreneurship courses in the textiles and handloom sectors. Youth also need grooming in life skills, communication skills, marketing, and computer based courses. The retail sector is growing and will require skilled manpower in customer services, for floor and shop managers, and for supply chain managers.

Sectors	Growth Opportunities
Tourism, travel and hospitality	• The sector was the highest contributor to the economy (29 percent) in tertiary sector in 2009-10. • The sector has witnessed a CAGR of approx. 8 percent from 2004-5 till 2009-10. • Currently no courses are being provided in hospitality sector by private training partners. Thus, focus should be on building training capacity for the sector.
Banking & Financial services, Insurance	• The sector witnessed a high CAGR of approx. 14 percent from 2004-05 till 2009-10. • Looking at the industry requirement, more training capacity needs to be created in the district for the sector to cater to the demand.
Mining & quarrying	• Mining & quarrying witnessed CAGR of approx. 20 percent from 2004-05 till 2009-10. • Currently it's a neglected sector in training. No training courses are being provided in this sector. Special focus is required in this sector for building of curriculum, creating training capacity and on-the-job training of the existing employees.
Construction	• Construction sector contributed highest percentage in the GDDP growth in tertiary sector in 2009-10. • The sector witnessed CAGR of 12 percent from 2004-05 till 2009-10. • The existing training capacity in this sector needs to be upgraded to provide more industry relevant courses. Industrial tie-ups for the same will be beneficial.

Figure 58 Key demand sectors in the district

State: Anantapur has the fifth highest working population in the state. Still a large section of this is engaged in agriculture and allied sector.

Action Plan:

a. The district already has large number of vocational training institutes present. State needs to upgrade these with better infrastructural facilities.
b. State must also focus in equipping few of the existing VTIs with state of art technologies for engineering and textile sectors.
c. Focus should be on training delivery through PPP models in upcoming service sectors such as retail, healthcare and BFSI. State should invite established companies in these sectors for curriculum development to ensure relevance and quality.

Training Partners:

Action Plan:

a. Training partners should focus on developing short term courses in collaboration with the industry in the upcoming sectors such as retail, BFSI, healthcare etc.

b. Target segment for training providers will be population with minimal educational qualifications. Training providers should introduce level based courses, encouraging trainees to take up-skilling courses after basic courses.
c. Training providers should also introduce entrepreneurship development programmes for textiles and handlooms sector.

Industry:

Action Plan:

a. Engineering based industry should tie up with government to upgrade few existing ITIs. They should also take the onus of delivering trainings in these institutes.
b. Industry should tie up with training partners to deliver on-the-job training to existing workers.

NSDC:

Action Plan:

a. NSDC should focus on increasing linkages between training providers, state and industry.
b. Focus of building training capacity in key growth sectors in the district such as construction, hospitality, textiles and handlooms and BFSI.
c. Focus should be on improving the existing quality of the training infrastructure. Regular assessment of training providers should be undertaken.

4.3 East Godavari

This section highlights the economic base and occupational structure of East Godavari. It identifies the high-impact industries and skills needed to match expected growth.

The latter part of the chapter provides the projected workforce demand and supply in the coming years and the optimization plan for the district.

4.3 East Godavari

4.3.1 East Godavari District Demographic Profile

East Godavari is bounded to the north by Visakhapatnam district and the state of Odisha. To the east lies the Bay of Bengal and to the south and west lie the West Godavari and Khammam districts. The total area of the district is 10,807 sq. kms, which accounts for 6.08 percent of the total area in Andhra Pradesh. East Godavari district has a coast line of 161 kms with 90 fishing villages. The NH 5, which connects Chennai and Kolkata, passes through the district for 126 kms. The district holds the top position in the state when it comes to the production of paddy, banana, and coconuts; contributing 10 percent of the total food grain production in the state.

Table 34 East Godavari district at a glance

East Godavari District at a Glance				
Population	**East Godavari District**		**Andhra Pradesh**	**Remarks**
	Provisional Census 2011	**Census 2001**	**Provisional Census 2011**	
Total Population	5151549	4901420	84665533	
Total Population - Male	2569419	2459640	42509881	
Total Population - Female	2582130	2441780	42155652	
Population Growth	5.10	7.93	11.10	
Area Sq. Km	10807		275100	
Density of Population (Density/Area sq.Km)	477	454	308	
Proportion of Andhra Pradesh population	6.08%	6.43%		
Decadal growth of population (2001 - 2011)	5.10%	7.93%	11.10%	
Average Literacy	71.35	65.48	67.66	
Male Literacy	74.91	70.00	75.56	
Female Literacy	67.82	60.94	59.74	
Sex ratio (per 1000)	1005	993	992	
Worker population participation rate		39.6	45.7	Census 2001
Cultivators to total workers		11.3	22.52	Census 2001
Agriculture laborer in workforce		50.8	39.64	Census 2001
Household workers		4	4.71	Census 2001

As per provisional Census 2011 data, East Godavari has a population of 51.51 lakh with a sex ratio of 1,005 females per 1,000 males compared to 993 females in 2001. It is pertinent to note that among 23 districts of the state, East Godavari is the second most populated. However, there are also signs of population stabilization.

East Godavari's total workforce participation rate is 39.60 percent. The total male working population is 58.70 percent against the female working population of 20.40 percent.

Out of the total working population, main workers comprise 33.0 percent, followed by marginal workers at 6.6 percent and non-workers at 60.40 percent. Out of the population of main workers, agricultural laborers account for 46.23 percent, followed by other industries at 36.99 percent, cultivators at 12.92 percent, and household industries at 3.86 percent. It is clear from these figures that most of the populations of main workers are either involved in agriculture or in the services industries.

4.3.2 Economic Profile

The Gross District Domestic Product (GDDP) of East Godavari has grown at a growth rate (CAGR) of 4.57 percent from 2004-05 till 2009-10. In 2009-10, tertiary sector contributed highest to the growth of GDDP at approx. 47 percent primarily due to the contribution of trade, hotels and restaurants sector.

The chart below indicates primary, secondary and tertiary sector contribution to the GDDP from 2004-05 till 2009-10.

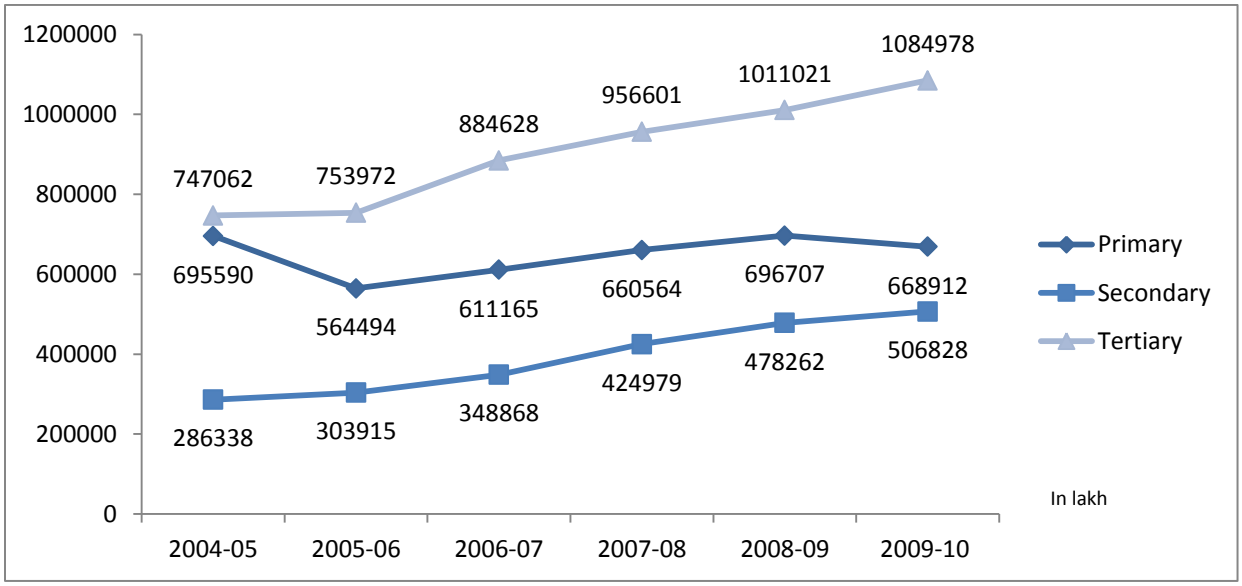


Figure 59 Sectoral contribution to the GDDP, East Godavari

Primary Sector

The primary sector (agriculture, forestry &logging, livestock, fishing and mining & quarrying) contributed approx. 29 percent to the GDDP in 2009-10. Livestock was the highest contributor to the primary sector, contributing 38 percent to the primary sector in 2009-10, followed by agriculture (34 percent), mining & quarrying (12 percent), fishing (12 percent) and forestry and logging (4 percent).

The sector has witnessed negative CAGR over the years. The CAGR for primary sector is -0.65 percent from 2004-2005 till 2009-10.

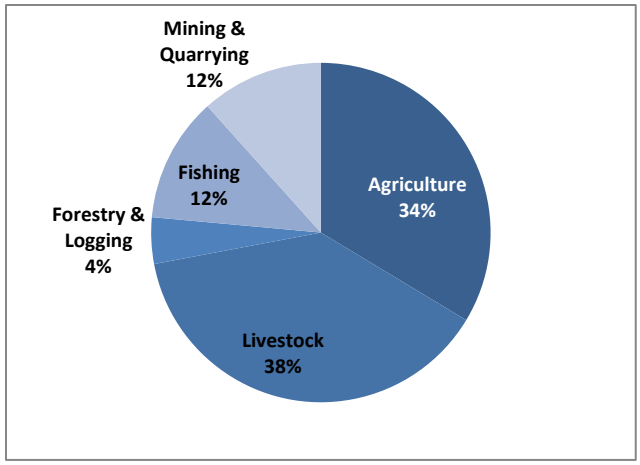


Figure 60 Primary sector contribution to GDDP, 2009-10

Secondary Sector

The contribution of the secondary sector to district GDP in 2009-10 was approximately 22 percent. The sector has shown a CAGR of 10 percent from 2004-05 till 2009-10, primarily due the contribution of construction sector.

The construction sector has shown an impressive CAGR from 2004-05 till 2009-10. However the growth of manufacturing sector has been the highest with registered manufacturing units growing by 15 percent from 2004-05 till 2009-10.

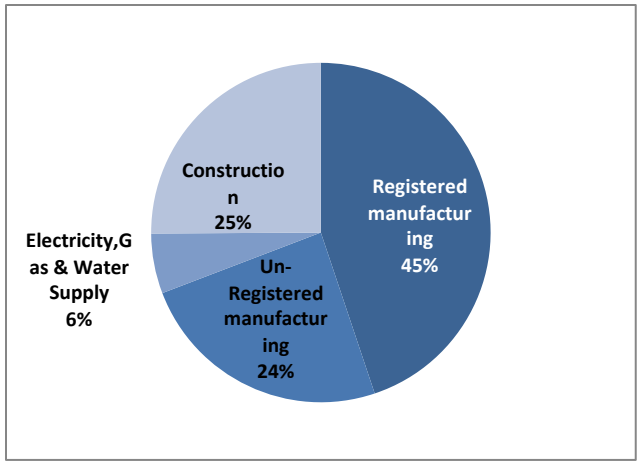


Figure 61 Secondary sector contribution to GDDP, 2009-10

Tertiary Sector

The contribution of the tertiary sector has been significant to the district's economy over the years. In the year 2009-10, the contribution of the tertiary sector was approx. 47 percent to the district's GDDP. The sector has witnessed CAGR of approx. 6.5 percent from 2004-05 till 2009-10, primarily due the trade, hotels and restaurants sector.

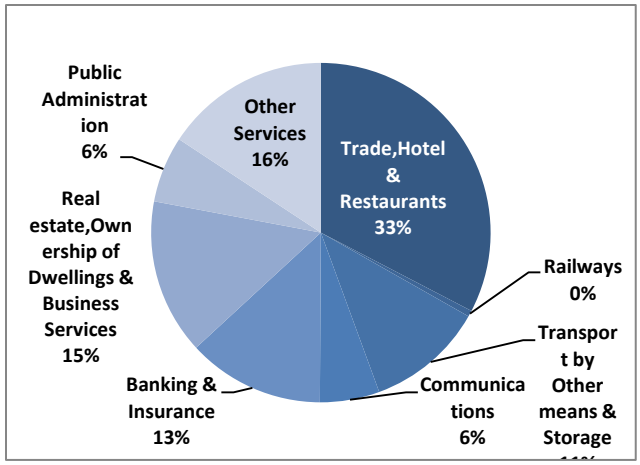


Figure 62 Tertiary sector contribution to GDDP, 2009-10

Industry Mapping

The economy of East Godavari is predominantly agricultural. Industrial development has generally come from agro-based and chemicals-based industries. Industry in this district contributes a significant contribution 6.50% to the state GDP at constant prices from 2004-05 to 2009-10. East Godavari district is well connected with Hyderabad and Visakhapatnam by road and rail. Its main economic activity is agriculture, on which 64.8 percent of the population depends. East Godavari contributes about 10 percent to the total food gain production in the state. Indeed, the district tops the state in production of paddy, banana, and coconut. Other major crops in the district are castor, pulses, jowar, maize, and ground nuts. There is one industrial estate in the district located at Mahbubnagar and four industrial development areas at Kothur, Jadcherla, Palem, and Gadwal. Almost all plots, sheds and shops developed are allotted to the entrepreneurs except at Gadwal. There is a huge potential for industries based on natural gas and petroleum products. Also, East Godavari's long coastline is an opportunity for port-based industries.

Large & Medium Industries

There are 107 large and medium scale industries with an investment of INR 88 billion and providing employment to 19,181. Prominent industries are rice milling, oil refining, solvent extraction, sea food processing, chemicals and fertilizers, paper, automobile components, sugar mills, beverages, bio-mass power plants, and gas-based power plants. East Godavari also has enormous potential for industries like cashew fenny, distilleries using waste fruits, seed processing, packaging, dairy products, pickles, cereals and pulses, the processing and iodization of salt, bio-diesel etc.

Small Scale Industries

East Godavari's small-scale industries are based in sectors like the agro-based industries, chemicals, ceramics, light engineering, non-ferrous metals, leather etc. In the private sector, there are 97 textile manufacturing units, two sugar factories, 40 paper and paper products manufacturing units, 329 wood and wood products factories, and one factory producing the Horlicks beverage mix.

4.3.3 Educational Infrastructure and Utilization

Table 35 Schools with enrollment details Source: Statistical Abstract, Andhra Pradesh - 2011

Schools	Total Number	No. of Enrollments
Primary Schools	3645	314449
Upper Primary Schools	851	144559
Secondary Schools	944	315162
Higher Secondary Schools	7	3583

The literacy rate of East Godavari district is 71.35 percent is ranked with the sixth highest position in comparison to other districts in the state. The literacy rate in 2011 was 71.35 percent compared to 65.48 percent in 2001. Gender wise, around 74.91 percent of males and 67.82 percent of females are literates. As per the census 2001, the total number of graduates and above in East Godavari district is 1, 54,017.

Table 36 College infrastructure Source: Statistical Abstract, Andhra Pradesh - 2011

Educational Institutions	Total Number
ITIs	2
Polytechnics	16
Engineering Colleges	35
Medical/nurses Colleges	9

It is interesting to note that out of the total population of graduates and above, 72 percent are males and just 28 percent are females. However, the percentage of the district's graduates to Andhra Pradesh's total graduates is 5.44 percent.

East Godavari also faces the challenge of keeping children enrolled in schools. The gross enrolment ratio for classes' I-V is 88.40 percent, but that falls to 78.29 percent for classes VI – VIII and just 37.85 percent for classes VIII – X. In contrast, the ratios for the state are 100.46 percent, 84.76 percent, and 69.51 percent respectively. The dropout rates established an increasing trend over classes' I-X of 40.92 percent. East Godavari will need to put more emphasis on quality of education, while increasing the number of schools, providing incentives to the best teachers, and developing better facilities for students, particularly girls.

There are a total of 35 engineering colleges in East Godavari, out of which only one is a government college and the rest are private. These engineering colleges offer a variety of courses and have a combined intake capacity of approximately 9,590 students per year. Major courses offered include electronics & telecom engineering, computer science & engineering, electrical engineering, mechanical engineering, and instrumentation. There are also 16 polytechnic colleges with total intake capacity of 3,565 students per annum.

4.3.4 VTI's demand across various trades in East Godavari district

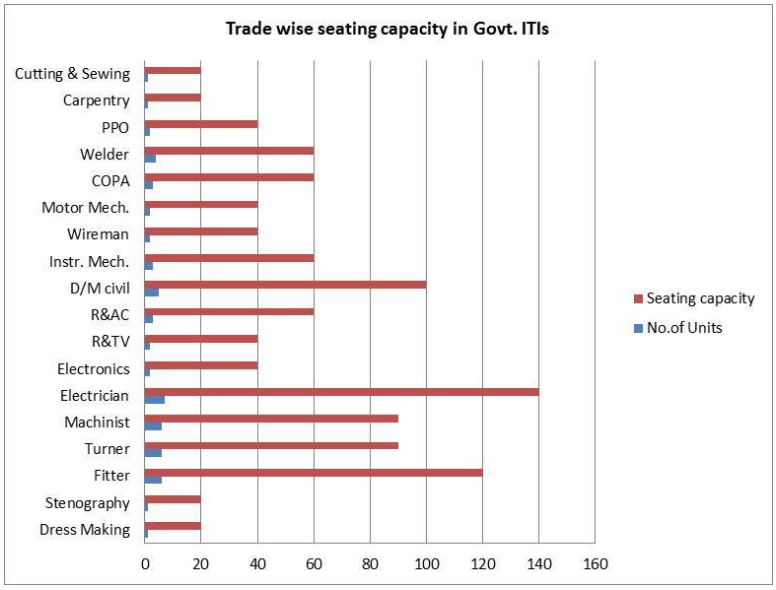


Figure 63 Trade wise seating capacity in ITIs

The ITIs in the districts imparts training in various trades including those for electricians, fitters, diesel mechanics, plumbers, instrument mechanics, welders, COPA, civil draftsman, dressmakers, carpenters, masons, tractor mechanics, radio and television mechanics, and turners. New courses are introduced based on emerging industry demand. At present, courses like those for fitters and electricians are in demand.

All the trades are permanently affiliated to National Council of Vocational Training (NCVT) of Director General of Employment and Training (DGET). Apart

from these training institutes, the district has close to 45 functional centers running under the Rajiv Education Employment Mission in Andhra Pradesh. There is considerable scope for private organizations to engage more deeply in skills training in the district and catering the needs for skilling youths of the district keeping in mind the ratio of female literates to that of males in the higher education and the progressive nature of the district in terms of HDI.

A survey was conducted in the district to better understand the state of skills training. Two government and eight private VTIs were covered. Both types of VTIs offered the same, largely engineering-oriented courses. As in other districts, there were few courses oriented towards women candidates. The details of the courses offered in East Godavari's VTIs are represented in the table.

Table 37 Courses offered in Government and Private VTIs (sample), East Godavari

Government VTI Trades	Private VTI Trades
Civil	Civil
Draftsman	Dress Making
Dress Making	Electronics
Electrician	EM
Fitter	Fitter
Mechanic Diesel	Mechanic Diesel
Repairing A/C	Repairing A/C
Turner	Welder

The civil and draftsman trades were the most popular in Government VTIs, while the electrical trade was the most preferred one at private VTIs. Most courses at government VTIs appear to be filled up with just a few vacancies. Exceptions are the turner and electrical trades where a significant number of empty seats can be found. In private VTIs, significant vacancies can be found in courses for dressmaking, AC repair, and electronics mechanic. It was observed that the courses offered were not up-to-date as per industry requirements, with many batches having vacant seats.

An overview of placement records by trade indicates a relatively poor performance at both government and private VTIs. Still, in some trades, candidates can expect to get well-paying jobs. The average salary of a trainee from the draftsman trade in government VTIs was INR 5,000 per month. This was the highest average salary at government VTIs.

In the case of private VTIs the highest paying job was in the civil trade, which drew an average salary of INR6,000 per month. While placements largely occur through campus interviews, many students also get placed by proactively approaching industry. It appears the employment exchanges are not playing any role in placements.

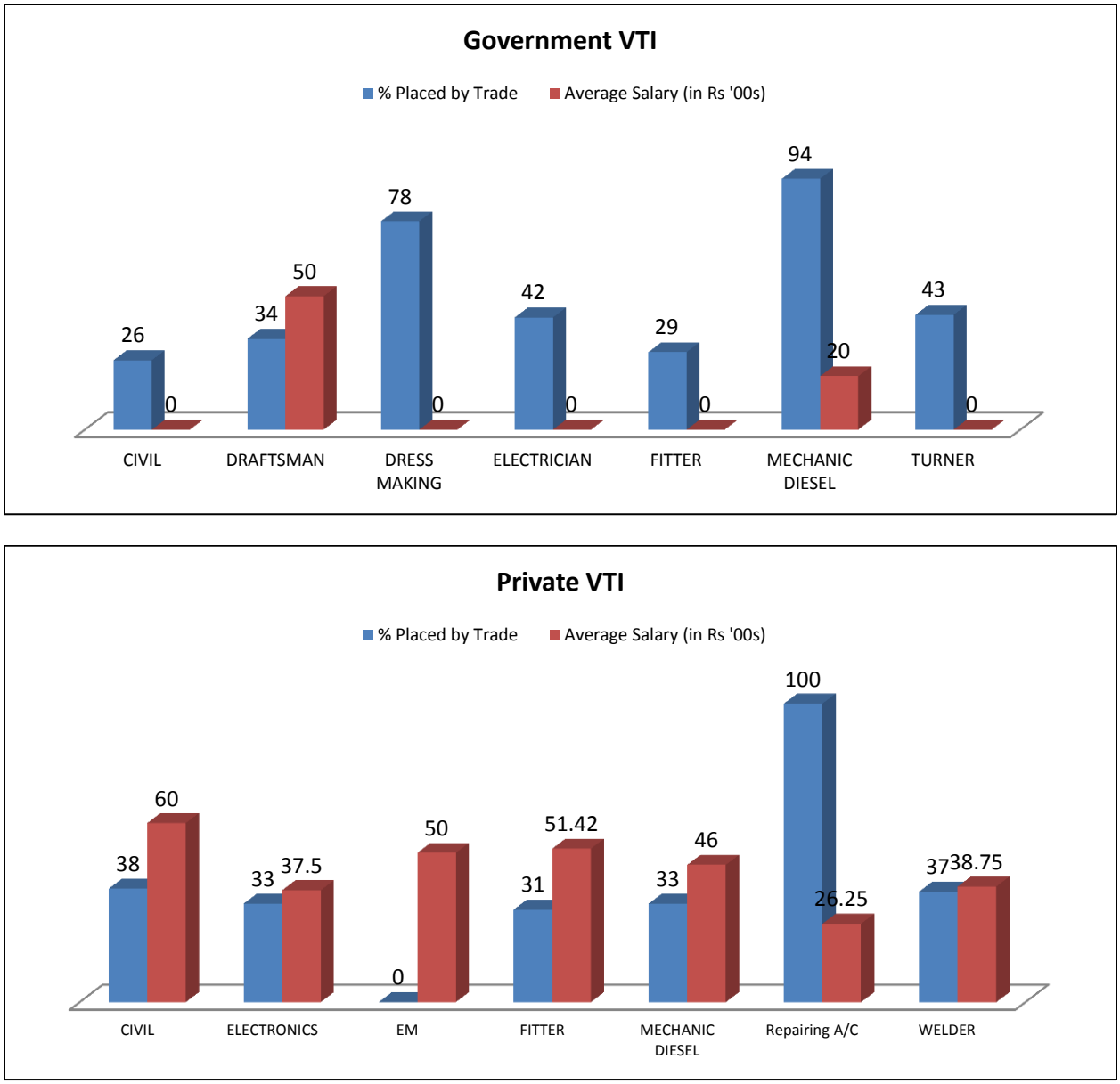


Figure 64 VTIs with placement percentage and average salary across trades

While placements of trainees from the government and private VTIs is largely through campus interviews, a good number of students also got placed by proactively approaching industry. It seems that employment exchanges are not playing any role in placements. The trends across most of the trades show an increase demand from the data on number of trainees over time in Government VTIs over the years except the A/C repairing trade. Private VTIs have also increased the intake of trainees across all the trades except dressmaking and EM.

Table 38 Actual & Approved staff for VTIs

Government VTI	Positions	Approved	Actual
	Managerial	18	17
	Academic	65	56
	Support	43	24
Private VTI	**Positions**	**Approved**	**Actual**
	Managerial	33	33
	Academic	183	183
	Support	23	23

Staffing is another challenge for some VTIs. While government VTIs appear to be understaffed in terms of the academic and support manpower, private VTIs appeared to have fulfilled their manpower requirements.

4.3.5 Placement & Absorption Trend

Candidates seeking job opportunities can approach the local employment exchange or go through the Rajiv Yuva Kiranalu mission, which helps qualified youth find work. As the diagram shows, most candidates are either absorbed by the industries were through training providers. The Job Mela organized at the district level as a part of the Rajiv Yuva Kiranalu has made very few placements.

East Godavari district has two employment exchanges and 87,313 candidate names were in the live register during 2009-10. However, out of that number, only 10 of the candidates were actually placed.

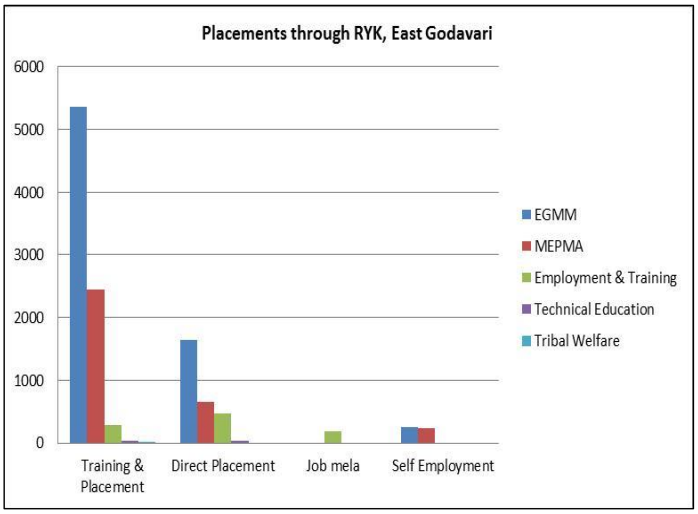


Figure 65 Placements through RYK; Source: RYK state level placements monitoring report, June 201

A total of 7,853 candidates have been placed post training out of which 98.5 percent has been due to projects like EGMM and MEPMA.

4.3.6 Sector wise mapping of industries in East Godavari

Industry in East Godavari is fast becoming a major source of growth. Looking at the trends, construction, hospitality and BFSI would be the prime movers of development in East Godavari district in the near future. These sectors would also provide significant employment opportunities for the workforce across the skilled, semi-skilled and minimally skilled categories.

Table 39 Sector wise mapping of Industries; Source: DIC

Industry wise Sector Mapping					
NSDC (High growth sectors)	**Units**	**Employment**	**High**	**Medium**	**Low**
Agriculture & Allied	**1**	**19**			
Automobile/Auto Components	**45**	**2083**			
Food Processing (Food beverages & Tobacco products	**1092**	**30878**			
Electronics Hardware	**70**	**1280**			
Textiles & Garments	**60**	**1660**			
Engineering based industry	**18**	**412**			
Chemicals & pharmaceuticals	**34**	**6754**			
ITES – BPO					
Tourism, hospitality and travel	**1525**				
Building & Construction					
Transportation/logistics/warehousing and packaging	**11**	**307**			
Healthcare	**139**	**307**			
Education/ Skill Development	**18**	**40**			
Banking/ Insurance and finance	**437**				
Manufacture of Wooden furniture	**257**	**2244**			
Paper & publication	**66**	**4787**			
Mineral based industries	**323**	**5855**			

Table 40 Sectors covered with number of industries surveyed in the study

Sectors	No. of Industries Sampled
Agriculture & Allied	2
Chemical & chemical products	3
Food Processing & Products	2
Machinery, Electricals & Manufacturing	2
Mines, Metals & Minerals	1
Paper Based	4
Unorganized Sector	1

In order to better understand existing market and industrial conditions, a stratified sample of 15 industries were selected. The sample of employers consisted of functionaries from diverse industries located in the district.The survey clearly indicated that loyalty was the trait employers most valued. Skills was rated the lowest as there was a feeling that skilling could be achieved over a period working with the industries. Industries like food processing and machinery were the most demanding sectors in terms of all traits. Mines, metals and minerals, followed by unorganized sector industries were the least demanding and their expectation from the skilled workforce were much fewer.

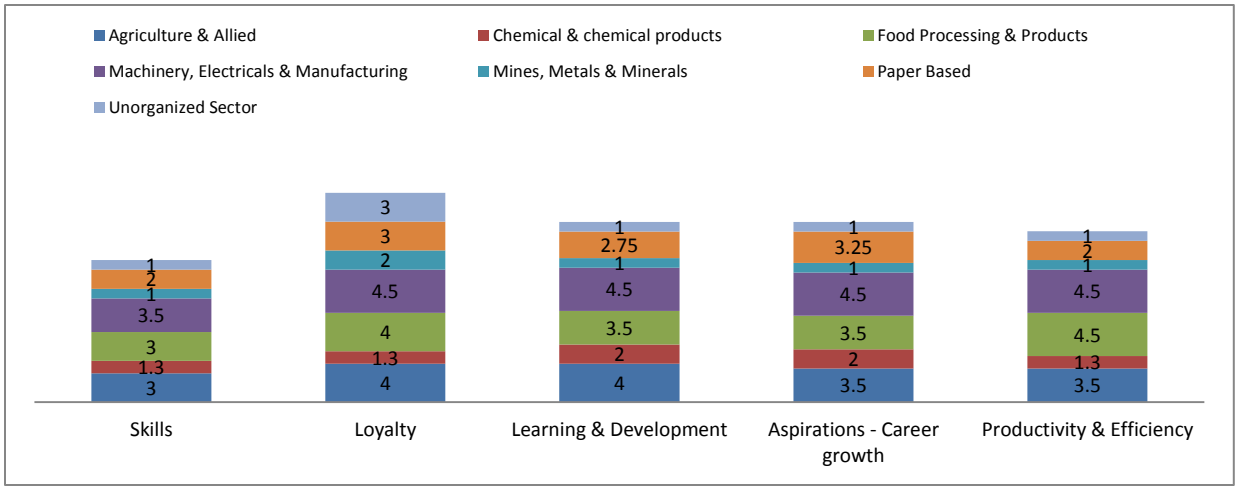


Figure 66 Expectation of employers as per sample survey

East Godavari is predominantly an agricultural district. There is a huge scope for establishing agro food based industries and other sectors like textiles, paper printing, chemicals, tourism, and wood and minerals-based industries. There has been marginal increase in workforce demand from emerging sectors like services, most of it in areas like repairs and maintenance or research and development. Some of the leading players in this district include Rajkumar Impex and Krishi Fertilizer sand Chemicals.

4.3.7 Workforce Demand and Supply

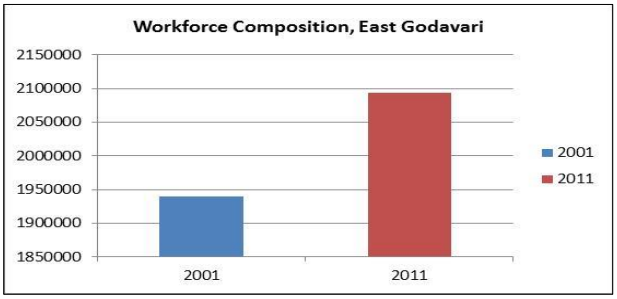


Figure 68 Projected Workforce; Source: Deputy Commissioner of Labour, 2012

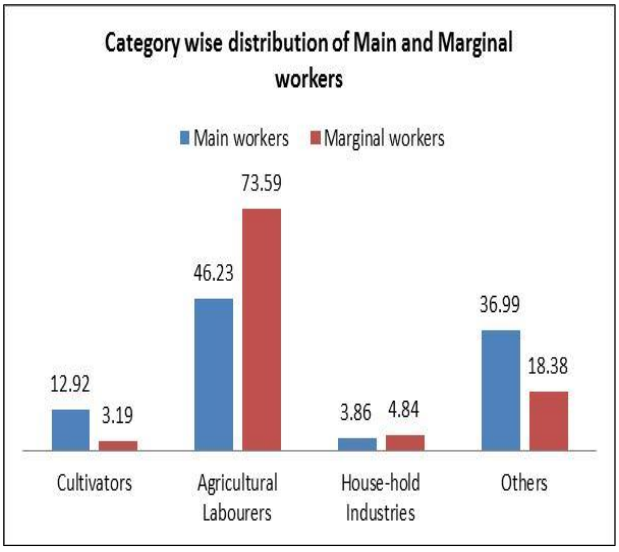


Figure 67 Workforce composition; Source: Deputy Commissioner of Labour, 2012

The district has the second-highest the overall workforce supply in Andhra Pradesh. The district is seeing strong demand for primary sector workers rather than secondary and tertiary sector workers.

The working population of East Godavari is expected to rise by 7.9 percent against 2009 data. The total workforce participation rate in East Godavari is 39.6 percent.

Out of the total working population, main workers comprise 33 percent of the total population followed by the marginal workers at 6.6 percent, and non-workers at 60.4 percent. Out of the population of main workers, 46.23 percent are agricultural laborers followed by 36.99 percent who work in other industries, 12.92 percent who are cultivators, and 3.86 percent employed in household industries. The major proportion of East Godavari's main

workers are engaged in agricultural and in services-based industries.

It is also worth noting that the majority of workers in the age group of 15 - 59 years fall into the category of main workers. Interestingly, among the non-workers and marginal workers, females in the age group of 15 - 59 outnumber males.

4.3.8 Projected Workforce Demand

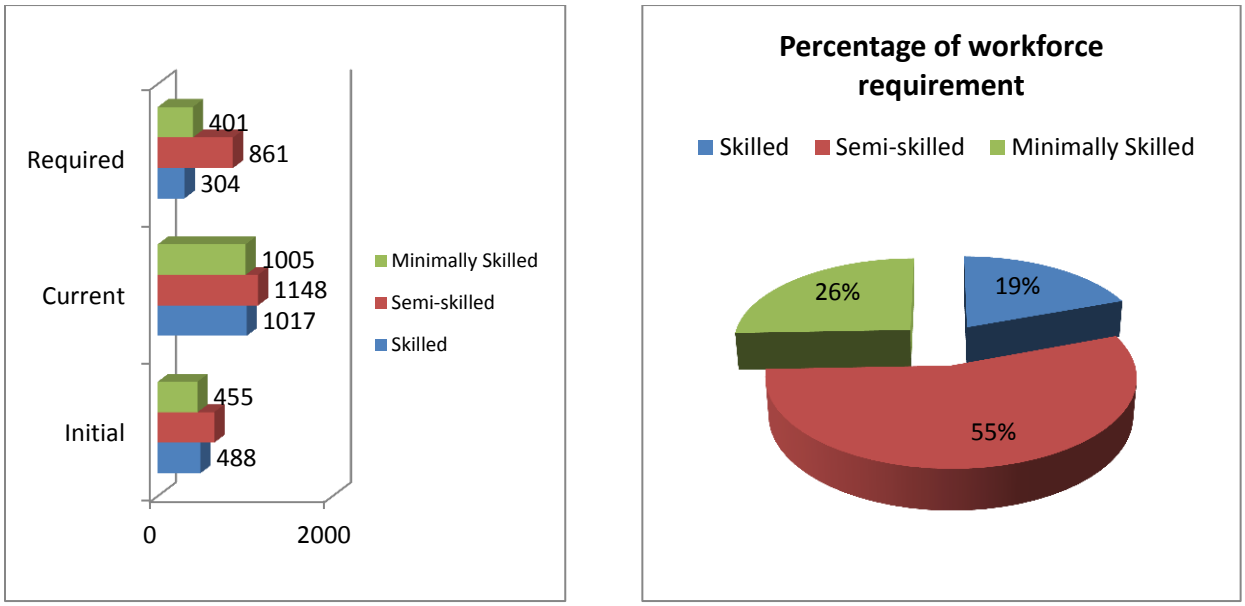


Figure 69 Workforce distributions in sampled industries and percentage of required workforce in terms of skilling as per primary survey

A total of 15 industries were sampled for the survey to represent seven major sectors in the district. The chart above shows the availability of skilled, semi-skilled, and minimally skilled workers according to their numbers in the sampled industries, from the time the industries were established to the present and future requirements. It was observed that the current strengths for the skilled, semi-skilled and minimally skilled workers were not equal. The count for semi-skilled worker is the highest, followed by skilled and then minimally skilled. At present, industries in East Godavari need more minimally skilled workers

The chemicals and paper-based industries reported that they could absorb more skilled workers. Most industries have either expanded or maintained their semi-skilled workforce. The exception is the mines and minerals industry. The food processing and paper-based industries report the potential to hire more semi-skilled workers.

In the minimally skilled workers category, four sectors report retention and an increase of their worker strengths. Only the chemicals industry has reduced its minimally skilled workforce.

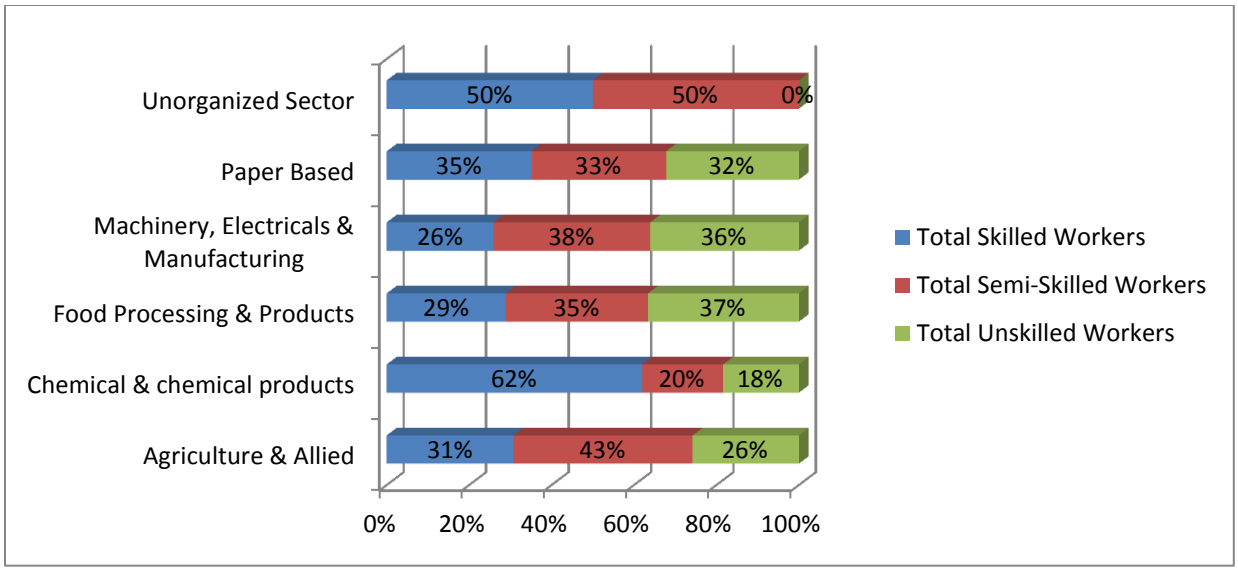


Figure 70 Sector wise current workforce distribution pattern across industries

Across the seven sectors represented in the sample, the proportion of semi- skilled workers is the highest, followed by the skilled and then minimally workers. Across all seven sectors represented in the sample, relatively large worker strengths, both semi-skilled and minimally skilled, were observed for the food processing sector.

The number of vacancies reported by the sampled employers for minimally skilled workers is the highest followed by semi-skilled and then skilled workers. The count of vacancies reported by various employers reflects a strong potential for worker absorption across all three categories. Most employers recruited workers through references from current workers. A few also used employment exchanges. However, the linkages between VTIs and employers were inadequate.

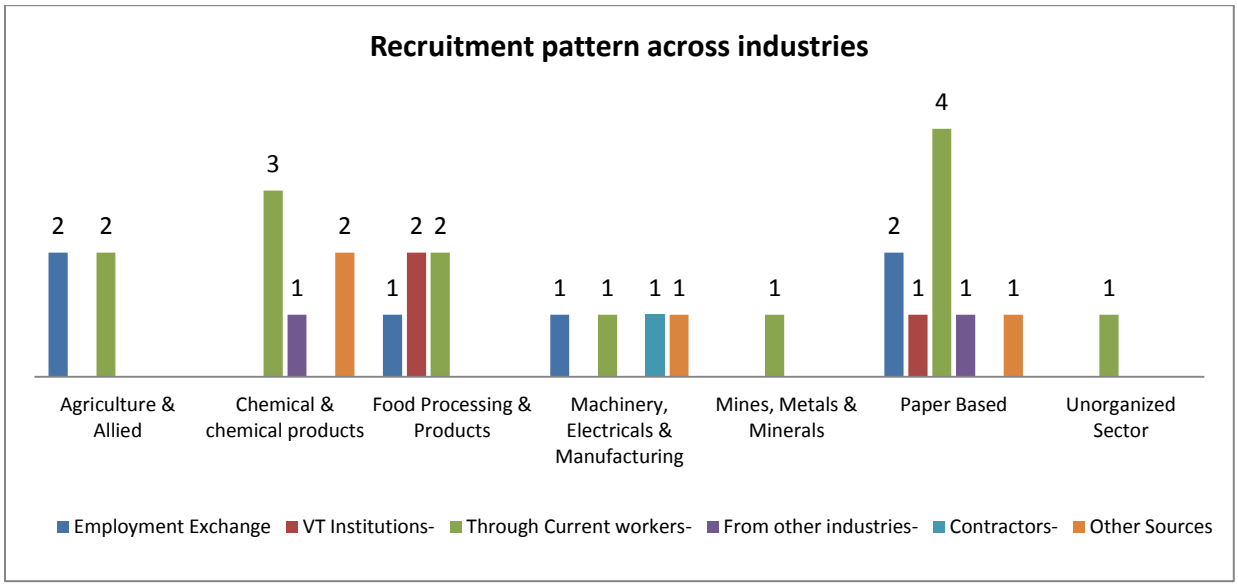


Figure 71 Sources of recruitment of current workers as per sample study

Table 41 Projected incremental workforce (demand) requirement till 2022 across all the sectors- East Godavari

	2012-2017			2017-2022		
Industry	**Skilled**	**Semi-Skilled**	**Minimally Skilled**	**Skilled**	**Semi-Skilled**	**Minimally Skilled**
Agriculture & Allied Activities	-17740	-88700.8	-337063	-22708.9	-113544	-431469
Mining & Quarrying	-329.19	-2503.05	-726.768	-2037.78	-1601.12	-2183.34
Construction	45086.8	54220.11	43007.69	47929.73	51353.29	76687.57
Tourism, Travel & Hospitality	124244	-20003.4	-25647.8	36950.62	16627.78	11085.18
Banking & Financial Services Insurance	32945	4226.396	1098.597	25895.79	11653.1	7768.736
Real estate	5041.69	6829.829	1031.144	3079.122	3299.059	4926.595
Food processing	5077.5	2275.009	2802.491	5077.5	3046.5	2031
Chemicals & Pharmaceuticals	5785	3167.504	2617.496	5785	3471	2314
Auto & Auto components	-528.75	-346.01	-182.74	-528.75	-317.25	-211.5
Manufacturing of Metals & non metallic products	-1093.8	-697.282	-396.468	-1093.75	-656.25	-437.5
Textile & leather	101.25	21.47593	79.77407	101.25	60.75	40.5
Other Services	29256.4	-7394.93	-8312.61	5404.15	2442.878	1597.126
Electricity, gas & water supply	83.75	36.76358	46.98642	83.75	50.25	33.5
Transportation, Logistics, Warehousing & Packaging	5851.06	2980.727	993.5756	4378.984	2230.803	743.601
IT & ITES Sector	18047.7	1889.402	344.4223	18945.61	1983.401	361.5574
Total	251828	-43998.3	-320307	127262.3	-19900.2	-326712

*Manufacturing Sectors

Although, the agriculture sector is currently one of the largest employer, but over the years a negative demand trend for manpower is seen. State will need to up skill /re-skill this workforce for beneficial employment in other secondary and tertiary sectors. The upcoming industrial sector such as construction, hospitality and BFSI sectors are estimated to have high incremental manpower requirement especially for skilled people. A downward trend in employment is observed in automobile and metals manufacturing sector due to low industrial demand.

4.3.9 Skill Gap Analysis

The skill gap analysis was performed by undertaking a primary research on the employers through the survey instrument. A structured questionnaire was designed to map the current and the future skill requirements of the industries identified in the district on the basis of manpower absorption and production in high growth industries in the district. The analysis factored in industry linkages with vocational training institutes, employment exchange and with other sources for workforce absorption and retention. It highlights the mismatch between industry skill

requirements and the skill pool emerging. The situation of skill gap for the district for 2010-11 to 2021-22 based on projections is represented in the table below.

Table 42 Representation of incremental Skilled, Semi-Skilled & Minimally skilled workforce gap till 2021-2022

Workforce Demand & Supply Gap						
	2012-2017			2017-2022		
Sectors	Skilled	Semi-Skilled	Unskilled	Skilled	Semi-Skilled	Unskilled
Demand	251828	-43998.3	-320307	127262.3	-19900.2	-326712
Supply	12321	10055	158426	5745	16905	149996
Gap	239507	-54054	-478733	121518	-36806	-476708

A focus is required on capacity building for training centers to cater to the increasing requirement of skilled manpower over the years. The state would need to focus on reskilling of those agriculture workers towards other sectors for beneficial employment.

4.3.10 Youth Aspirations

The youth survey study was primarily undertaken through the survey instrument. Structured questionnaires were designed to capture youth aspirations and perceptions under the four categories of employed, self-employed, unemployed, and trainees. Interviews were held with 64 youths and focus group discussions were conducted in colleges.

In-depth interactions were held with respondents across the various categories of youth to provide deeper insight and understanding of their aspirations and perceptions. Out of those surveyed, 67.2 percent were college educated and the remaining 32.8 percent had only completed high school. All the respondents were from registered VTIs.

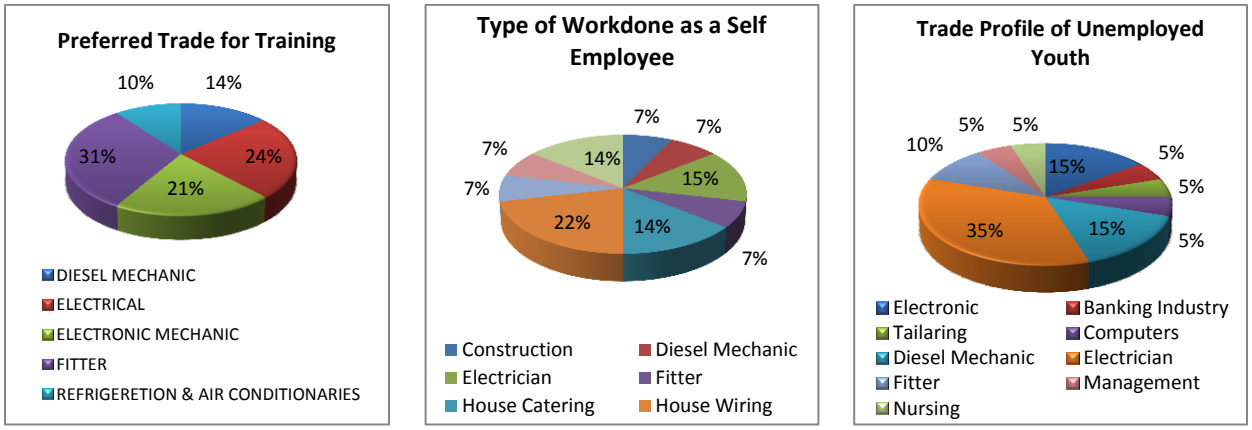


Figure 72 Profile of respondents (trainee, self-employed & unemployed youth) by trade in sample of East Godavari

The respondents were also asked choose their most preferred trade. The fitter trade emerged as the most popular, with 31 percent picking it after citing market demand. The next most popular course was the one for electricians, with 24 percent choosing it.

Out of the respondents who were self-employed, 22 percent selected house wiring as their occupation. Among those who were unemployed, 35 percent were trained electricians. This

was followed by the diesel mechanic and electronics trades, each represented by 15 percent of the unemployed.

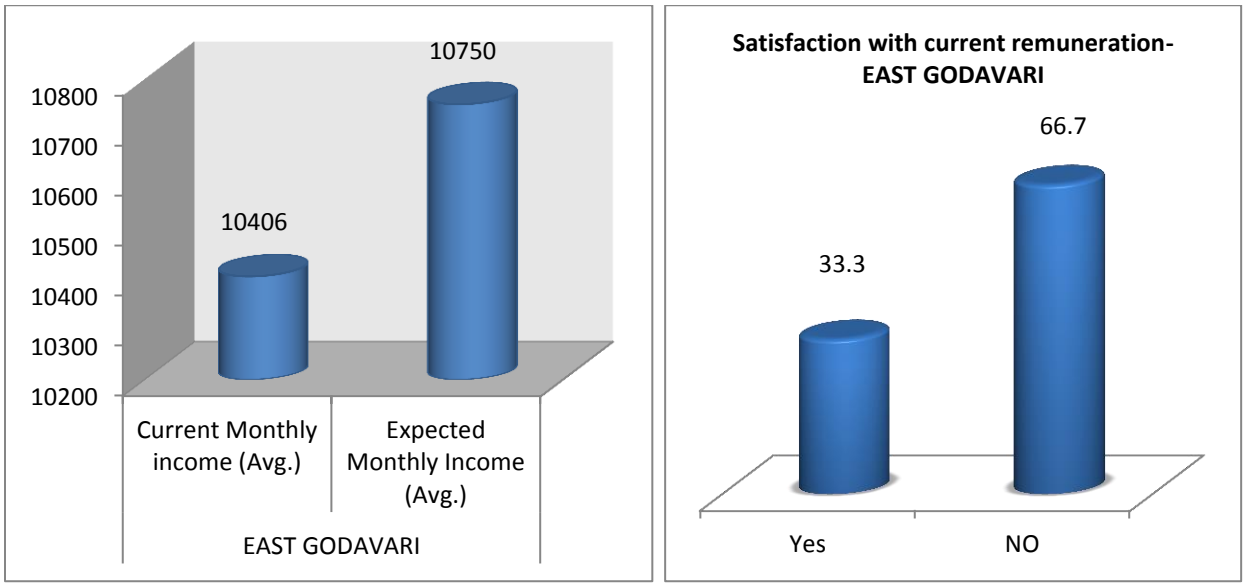


Figure 73 Salary wise youth perception & expectation

Among employed youths, there was little work satisfaction, with 66.7 percent saying they were unsatisfied. The respondents also expected an average hike of INR 344 across different trades. Half of those interviewed received an annual increment.

Parameters considered by District's youth while opting for vocational training

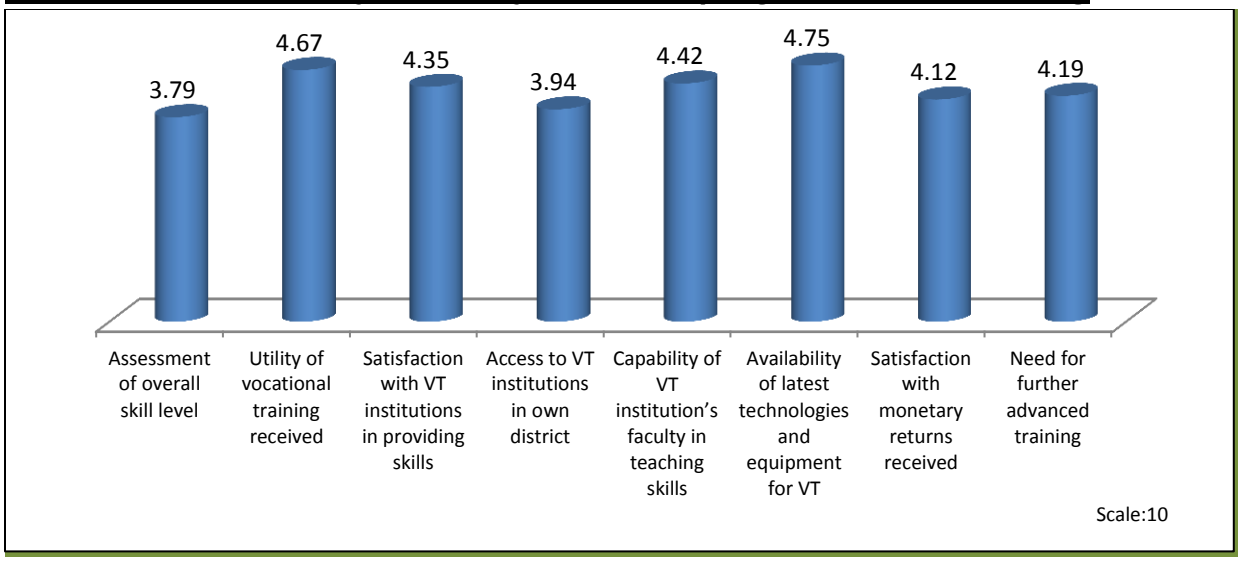


Figure 74 East Godavari Youth's perception, need and aspirations –Sample Group

The respondents were also asked to rate their experiences with VTIs on a scale of 10. They expressed significant dissatisfaction when asked to assess their overall skill levels, giving it a rating of just 3.79. However, they rated the availability of the latest technologies at VTIs at 4.75.

4.3.11 Recommendations: Skill Development Eco System

The industries of East Godavari contribute significantly at 6.50 percent to the state GDP at constant prices from 2004-2005. To keep the industries of the district on its consistent growth path, it is of utmost importance to increase the skilling capacity and quality of the VTIs. Upcoming sectors such as energy and power generation, food processing (such as refined oil), coir products, paper and pulp production will need readily skilled employees in latest technologies. Aspirants also will need to be trained in service industry such as restaurant service, facility management, supply chain management, banking sector and computer based courses.

The district has the second highest overall workforce supply in Andhra Pradesh. The key stakeholders' contribution in enabling to achieve this target should be as follows:

State:

East Godavari has the sixth highest literacy rate in Andhra Pradesh and possesses a well-established infrastructure for imparting technical and non-technical education.

Action Plan:

a) State should capitalize on the existing infrastructure to cater to the industry requirement of skilled manpower. State should convert two-three existing universities as vocational university or community resource centres to provide students with opportunity to pursue advanced skill training.
b) State should focus on marketing campaigns to help student mobilization by building on their aspirations.
c) State to map the aspirations and requirements suggested in the ranking done by youth and draw action plans to capacitate VTIs.
d) State will need to up skill /re-skill workforce leaving agriculture sector for beneficial employment in other secondary and tertiary sectors.

Training Partners:

Action Plan:

a) The current trainings provided in the district don't match the youth and industry expectations.
b) The district youth currently don't see value in vocational training. Thus, training providers need to partner with the industry to better placements.
c) Training providers must explore options for delivery of training through government infrastructure.
d) Further, due to the changing nature of work and employment, individuals now look for more flexible and multi-skilling learning opportunities for mobility across employment sectors and geographic locations.

Industries:

Action Plan:

a) The district will witness growth in various new sectors in the coming years. Upcoming industries should partner with the training providers to fulfill their manpower demands.
b) Industry will need to match the youth aspirations in terms of wages and career progression.
c) Industry should look into partnering with the training providers for teacher training. Industry should encourage their existing employees to volunteer as experts to provide inputs and take special sessions at the training facilities.

NSDC:

Action Plan:

a) NSDC should promote training providers in cluster based trainings. NSDC should also act as a catalyzer and assist training providers in various industrial and government collaborations.
b) Sector Skill Councils should collaborate with the industry for providing certification to their existing manpower for their acquired skills. Thus, SSC should promote skills assessments of the current workers and encourage them to take further up-skilling courses.

4.4 YSR (Cuddapah)

This chapter highlights the economic base and occupational structure of the district YSR Cuddapah. It identifies the high-impact industries and skills needed to match the expected growth.

The latter part of the chapter provides the projected workforce demand and supply in the coming years and the optimization plan for YSR.

4.4 YSR (Cuddapah)

4.4.1 YSR (Cuddapah) District Demographic Profile

Historically, Cuddapah has been important to Andhra Pradesh because of its rich mineral resources. It has the world's largest and the finest deposits of Barytes and enjoys monopoly in the superior variety of Asbestos.

The district has a total area of 15,359 sq. km, which accounts for 3.41 percent of the total area of Andhra Pradesh.

Table 43 YSR district at a glance

YSR District at a Glance				
Population	**YSR District**		**Andhra Pradesh**	**Remarks**
	Provisional Census 2011	**Census 2001**	**Provisional Census 2011**	
Total Population	2884524	2601797	84665533	
Total Population - Male	1456136	1318093	42509881	
Total Population – Female	1430388	1283704	42155652	
Population Growth	10.87	14.78	11.10	
Area Sq. Km	15359		275100	
Density of Population (Density/Area sq.Km)	169	188	308	
Proportion of Andhra Pradesh population	3.41%	3.41%		
Decadal growth of population (2001 - 2011)	10.87%	14.78%	11.10%	
Literacy rate	67.88	62.83	67.66	
Male Literacy	78.41	75.83	75.56	
Female Literacy	57.26	49.54	59.74	
Sex ratio (per 1000)	974	984	992	
Worker population participation rate		44.8	45.7	Census 2001
Cultivators to total workers		39	22.52	Census 2001
Agriculture laborer in workforce		24.3	39.64	Census 2001
Household workers		5.2	4.71	Census 2001
other industry and services		31.5	33.13	Census 2001

According to the provisional Census 2011 data, YSR has a population of 2.884 million with a sex ratio of 974 females per 1000 males. The sex ratio from the 2001 census was 84 females per 100 males. The district registered with the declining sex ratio (close to 18percent). YSR's total urban population was 34.10 percent in 2011 compared to 22.59 in 2001. However, the district reports a per capita income of INR 31,476 against the state's per capita income of INR 37,061 at constant prices 2004-05. Looking at the existing trend, the district is stepping towards urbanization by expanding growth opportunities in this district.

YSR's literacy rate is 67.88 percent, up from the 2001 Census figure of 62.83 percent and at par with state average of 67.66 percent. Male literacy stands at 78.41 percent, while female literacy is at 57.26 percent, a significant improvement from 49.54 percent in 2001.

According to Census 2001, the working population of YSR constitutes 44.8 percent of the population, leaving it at the fourth lowest position in the state, the total population of working males is 56.8 percent and that of females is 32.6 percent – 4.2 percentage points higher than the state figure.

Out of the total working population, the main worker population comprises of 35.8 percent of the total population followed by marginal workers at 9percent and non-workers at 55.2 percent. The district reported higher percentages of marginal and non-workers, beating the state average by 2.7 percent and 1 percent respectively. Out of the total working population, 24.3 percent and 39 percent are agricultural workers and cultivators, respectively. Among main workers in the district, 39 percent are agricultural laborers followed by 35.9 percent in other industries 27.05 percent who are cultivators, and 5.25 percent who work in household industries. A large proportion of the main workers are engaged in agricultural activity or in industries like tourism, hospitality and construction. But it is also is interesting to note that the district recorded the fifth highest position in the state when it came to workers engaged in household industry.

4.4.2 Economic Profile

The district's Gross district domestic product (GDDP) has grown at a growth rate (CAGR) of 7.82 percent from 2004-05 till 2009-10. In 2009-10, tertiary sector contributed 50.43 percent to the GDDP primarily due to the contribution of trade, hotels and restaurants followed by secondary sector (23.89 percent) and primary sector (25.69 percent).

As indicated in the figure below, the CAGR of secondary sector has been the highest at 9.07 percent from 2004-05 followed by tertiary and primary sector.

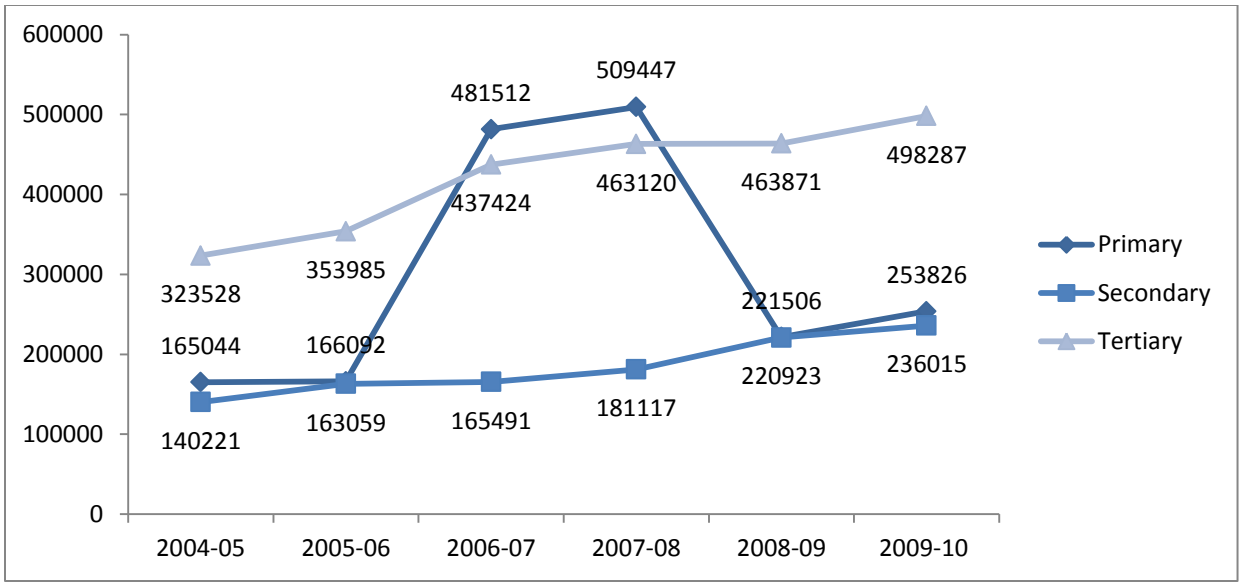


Figure 75 Sector level contribution to GDDP, YSR

Primary Sector

The primary sector (agriculture, forestry &logging, livestock, fishing and mining & quarrying) contributed 25.69 percent to the GDDP in 2009-10. Agriculture sector remained as the highest contributor to the primary sector, contributing 71.22 percent to the primary sector in 2009-10, followed by livestock (16 percent), forestry and logging (7 percent), and mining and quarrying (6 percent).Historically, Cuddapah has been important to Andhra Pradesh because of its rich mineral resources. It has the world's largest and the finest deposits of Barytes and enjoys monopoly in the superior variety of Asbestos.

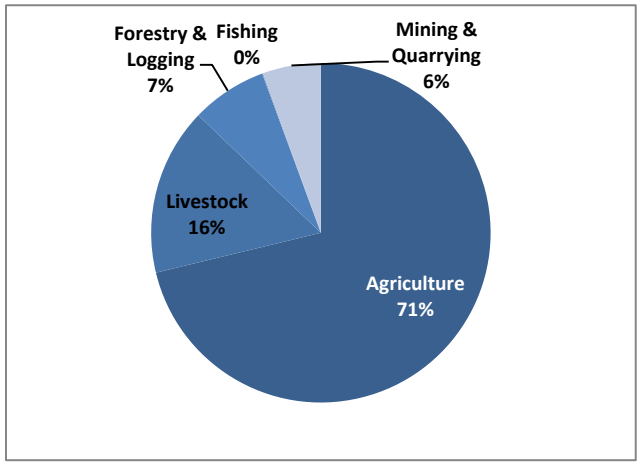


Figure 76 Primary sector contribution to GDDP, 2009-10

Secondary Sector

The contribution of the secondary sector to district GDP in 2009-10 was approximately 23.89 percent. The sector has shown a CAGR of 9.07 percent from 2004-05 till 2009-10, primarily due the contribution of construction sector followed by unregistered manufacturing sector. The registered manufacturing sector has witnessed an impressive CAGR of 26.36 percent. The

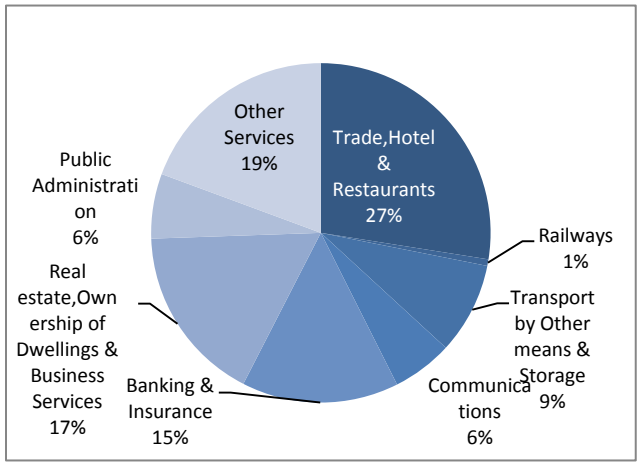


Figure 77 Secondary sector contribution to GDDP, 2009-10

construction sector has witnessed CAGR of 11.61 percent from 2004-05 till 2009-10.

Tertiary Sector

The contribution of the tertiary sector has been significant to the district's economy over the years. In the year 2009-10, the contribution of the tertiary sector was 50.43 percent to the district's GDDP. The sector has witnessed CAGR of 7.46 percent from 2004-05 till 2009-10, primarily due the trade, hotels and restaurants sector.

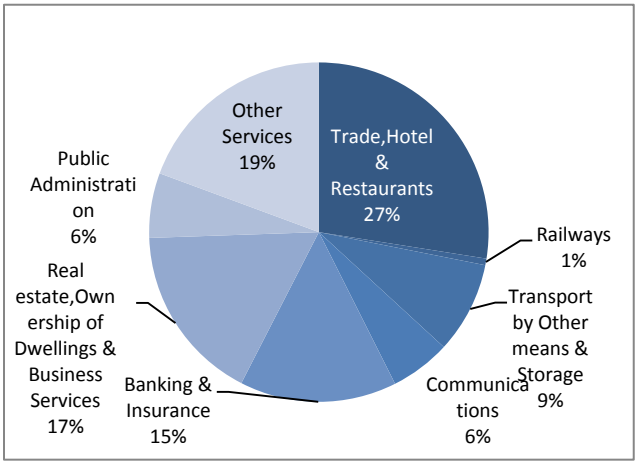


Figure 78 Tertiary sector contribution to GDDP, 2009-10

The sector which has shown a high CAGR from 2004-05 till 2009-10 is BFSI (12.50 percent), followed by trade, hotels & restaurants (7.14 percent) and communications (6.33 percent).

Industry Mapping

The economy of YSR is predominantly an agricultural one. Industrial development in the district has been generally from agro based and textiles based industries. Industry in YSR provides a marginal contribution of 2.84 percent of the state GDP at constant prices from 2004-05 to 2009-10.

Industry and agriculture are the two major factors contributing to the economy of YSR. There are 24 industrial areas in the district. The district is known for its mining industry. It also occupies the fourth position in the state in sericulture. Besides this, floriculture is also gaining in popularity in the district. YSR excels in industrial and commercial development; there is a plethora of industries that have thrived here form a long time. The district is well connected to Hyderabad and Bangalore through road and rail networks.

YSR has some of the greatest potential for the development of various horticultural crops. The soil and climate conditions of the district are most suitable for this activity. Despite low rainfall, YSR has proven to be a congenial place for citrus plantations and mango orchards. Mangoes, which are a popular horticulture crops has gained popularity among farmers.

Large & Medium Industries

As per DIC data 2012, the district has 26 large-and-medium scale industries with an investment of INR 6536.78 crore providing employment to 9479 people. The industries include basic metals, fibre glass, pharmaceutical formulations, particle board manufacturing, poultry, textiles etc. According to statistics provided by the district DIC, there were only three large and medium scale industries in the district in the year 2000. The number of L&M industries has grown to 11 in the five years. But most of the L&M units seem to have been established after 2009, recording a growth of 22 % in the six years, from 2005.

Small Scale Industries

As per the district Handbook of Statistics 2010, the district has 157 small scale units functioning and employing 2474 employees with an investment of INR 10424. 45 lakh. Major sectors in which the industries are present are mineral based, agro based, and other engineering units.

4.4.3 Education Infrastructure and Utilization

The district literacy rate has shown marginal improvement, going up to 67.88 percent in 2011 compared to 62.83 percent in 2001. The literacy rate for males and females are at 78.41 percent and 57.26 percent respectively against 75.85 percent and 49.54 percent in 2001. Census 2001 put the total number of graduates and those with higher qualifications at 91,650, out of whom 78 percent were males. YSR accounts for 3.24 percent of the total number graduates in Andhra Pradesh. As per provisional Census 2011, the district's gross enrolment ratio, or the percentage of enrolment in classes to the estimated child population in different age groups, is higher in classes I-V at 107.5 percent-, followed by 86.71 percent in classes VI–VIII and 72.34 percent in classes VIII–X. The corresponding figures for the state are 100.46 percent, 84.76 percent and 69.51 percent respectively.

Table 44 Schools with enrolment details Source: Statistical Abstract, Andhra Pradesh - 2011

Schools	Total Number	No. of Enrollments
Primary Schools	3322	290875
Upper Primary Schools	490	67525
Secondary Schools	725	190639
Higher Secondary Schools	6	2409

Educational Institutions	Total Number
ITIs	2
Polytechnics	14
Engineering Colleges	25
Medical/nurses Colleges	2
Pharmacy Colleges	7

Table 45 Education Statisticss; Source: Statistical Abstract, Andhra Pradesh – 2011

YSR has the fifth largest number of primary school among the districts of Andhra Pradesh. But the number of higher secondary schools are too less. The school dropout rate increases in higher classes, showing an increasing trend over I-X classes to reach 40.39 percent. Greater emphasis on quality of education, increasing the number of schools, providing incentives to the best teachers, and improving facilities for students, particularly girls are and one of utmost importance.

For technical education, there are total 25 engineering colleges in YSR, out of which only three are the government college and the rest are private engineering colleges. These engineering colleges offer a wide range of courses and have an intake capacity of approximately 6,112 students per year. Major courses offered include those in telecom, computer science, instrumentation and mechanical engineering, as well as electronics and electrical engineering.

There are also 14 polytechnic colleges with a total intake capacity of 2,870 students per year. YSR district has the third highest number of polytechnic colleges in the state.

4.4.4 VTI's demand across various trades in YSR district

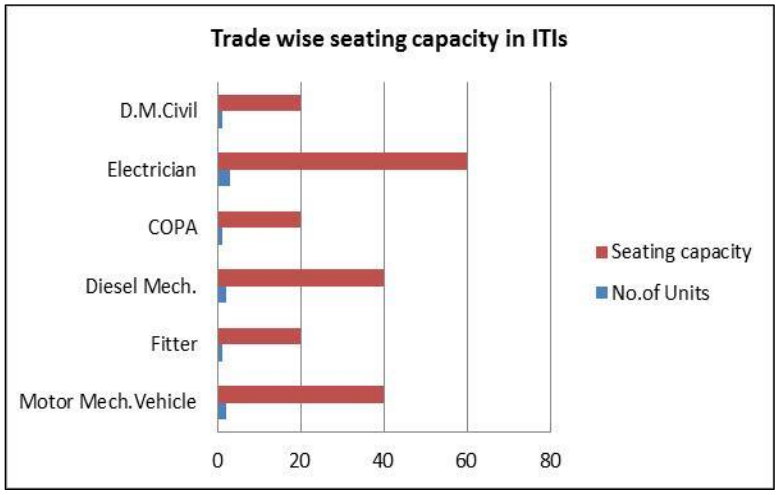


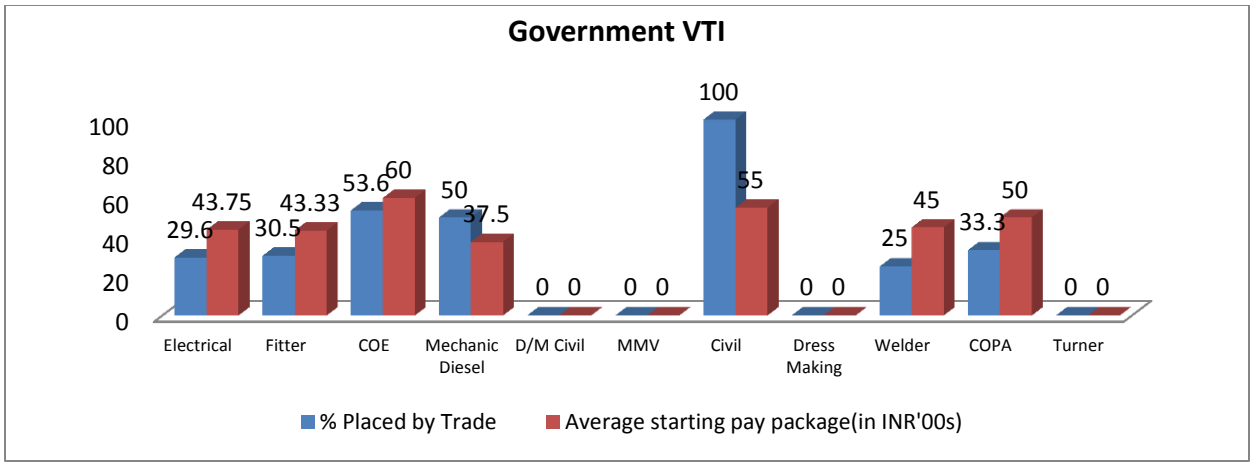
Figure 79 Trade wise seating capacity in ITIs, 2012

There are 16 vocational training institutes in the district with intake capacity of 2.254 students per year. Out of these vocational training institutes only two are the government ITIs and the rest are private ITCs. These institutes impart training in various technical and non-technical trades like Electrician, Fitter, Mechanic (Diesel), Plumber, Instrument Mechanic, Welder, carpenter, Dress Making, Electronics, Mason (Building Constructor), , Mechanic (Radio and Television) and Turner, Stenographer etc. The new trades are introduced in the ITIs and ITCs based on the emerging demand of trades in the industries. All the trades and units are permanently affiliated to National Council of Vocational Training of Director General of Employment and Training. Electricians are the trade most in demand in YSR district followed by followed by motor and diesel mechanics.

Table 46 Courses offered in government and private VTIs (sample), YSR

Government VTI Trades		Private VTI Trades	
Electrical	**Civil**	**Motor Mechanic**	**Carpenter**
Fitter	**Dress Making**	**Electrical**	**Mechanist**
COE	**Welder**	**Mechanic Diesel**	**D/M Civil**
Mechanic Diesel	**COPA**	**Fitter**	**MMV**
D/M Civil	**Turner**	**Welder**	**Turner**
MMV		**Plumber**	

Both the government VTIs and private VTIs covered by our study each offer training in 11 different trades. Course in Electrical appears is the most popular trade in the district. The popularity of the Electricals course can be gauged by the fact that private VTIs in the district are offering twice the number of seats the government VTIs are offering. In government VTIs, the gap between number of actual trainees and number of seats approved can be seen across all trades. This gap is significant for COE trade.



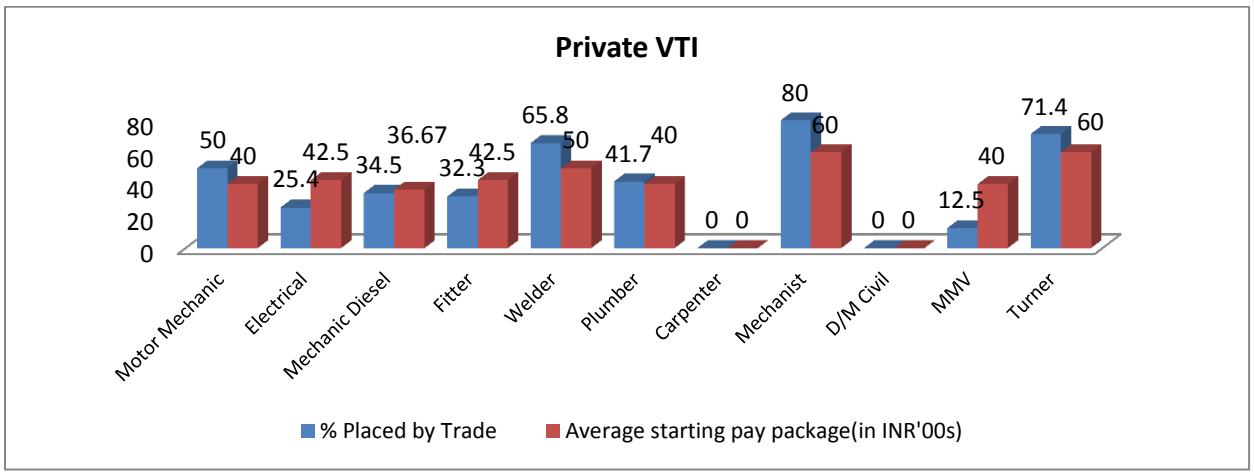
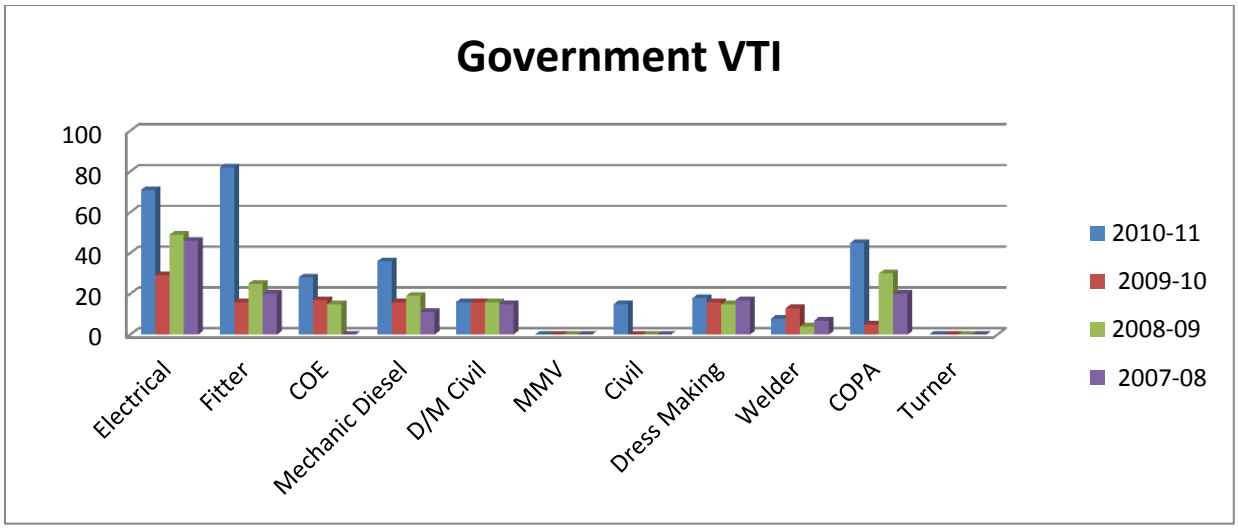


Figure 80 VTIs with placement percentage and average salary across trades

An overview of placement at Government VTIs indicates strong prospects in all the trades with the exception of D/M Civil and the Dress Making trade where placement wasn't seen. In government VTIs, the civil trade enjoyed 100 percent placement followed by COE with 53.6 percent. This was a result of the institute's proactively approach towards industry. Among the private VTIs, the Mechanist trade got the highest placement with a figure of 80 percent. It was followed by followed by Turner at 71.4 percent and Welder at 65.8 percent. Among the 11 trades in Government VTIs, the average starting salary indicates good prospect for the COE and civil trades with placement package at INR 6000 per month. In case of private VTIs the highest paid jobs were the Mechanist and Turner trades. While the placement of trainees from government and Private VTIs is usually done via campus interviews, some students from Government VTIs also got placed by proactively approaching industry. Among private VTIs no placement information is given except those that occurred through the campus selection process. It appears the district employment exchange is not playing a role in placements.



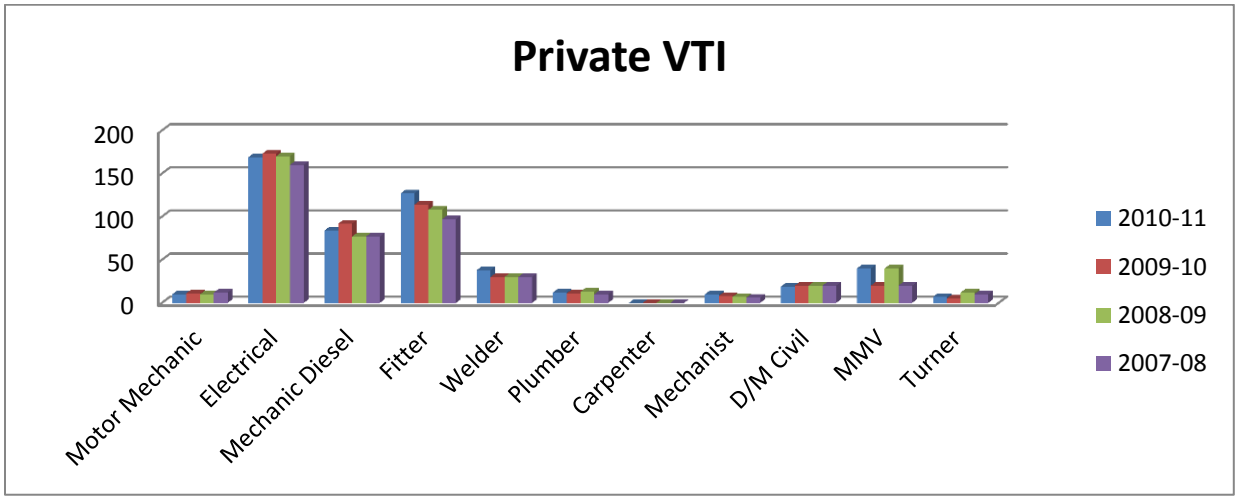


Figure 81 Total trainees over the years in different trades of Government & Private VTI

Table 47 Approved & Actual status, 2012

Government VTI		
Positions	Approved	Actual
Managerial	25	21
Academics	42	37
Support Staff	16	16
Private VTI		
Positions	Approved	Actual
Managerial	8	8
Academics	51	51
Support Staff	16	16

In Government VTIs, the Fitter trade followed by Electrical trade show an increase in demand going by the data on the number of trainees. The D/M Civil trade has also maintained moderate demand over the years. Private VTIs have seen constant demand for the Fitter trade. Private VTIs have increased intake for all trades over the years.

Government VTIs appear to be understaffed in terms of the academic and managerial manpower to run the VTIs. Private VTIs, there was no shortfall of manpower.

4.4.5 Placement & Absorption Trend

In Cuddapah district, there is just one employment exchange. In 2009-10, its live register had 49,165 people looking for jobs. Only 15 got placed through the employment exchange. It is pertinent to note that the performance of the employment exchange is very poor.

The placement of the candidates seeking job opportunities within and outside the district is done either through registering with the employment exchange, or through Rajiv Yuva Kiranalu mission, which focuses on offering placements to educated youth.

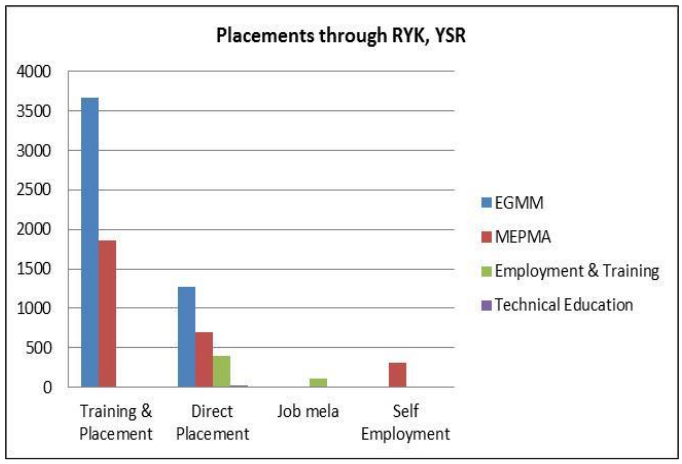


Figure 82 Placements through RYK; Source: RYK state level placements monitoring report, June 2012

As the diagram shows, the majority of the candidates among the rural and urban unemployed youth are absorbed by private institutes with direct industry linkages offering training and development. However, there has been marginal absorption trend observed through direct placements by industries offering job specific training linked to placement. The Job Mela organized at the district level as a part of the ongoing Rajiv Yuva Kiranalu, has recorded the least number of placements.

4.4.6 Sector wise mapping of industries in YSR (Cuddapah)

The YSR district is an important industrial and commercial center in the state. With the high investments in the district, the demand for skilled workforce is also increasing in various sectors. YSR has a huge potential for development of industries with easy access to water resources, adequate supply of power and better marketing facilities. Looking at the spread of units and employment trend across various sectors, it is pertinent to note that the sectors like textile and food based industries would be the prime movers of development in YSR district in the near future and would provide significant employment opportunities for the workforce, whether skilled, semi-skilled or minimally-skilled.

Industry wise Sector Mapping					
NSDC (High growth sectors)	**Units**	**Employment**	**High**	**Medium**	**Low**
Agriculture & Allied	31	735			
Automobile/Auto Components	41	210			
Food Processing (Food beverages & Tobacco products	408	2394			
Electronics Hardware	5	55			
Textiles & Garments	57	135			
IT Software					
Chemicals & pharmaceuticals	65	392			
ITES - BPO					
Tourism, hospitality and travel	1431				
Building & Construction					
Real estate					
Healthcare	31	139			
Education/ Skill Development	31	395			
Banking/ Insurance and finance	240				
Manufacture of Wooden furniture	55	180			
Petroleum	4	520			
Paper & publication	7	449			
Mineral based industries	182	5626			
Service based industries (Repairs & maintenance R&D)	21	4661			

Table 48 Sector wise mapping of Industries; Source: DIC

High	Units>200, emp>1000 - all applicable
Medium	Units>100, emp>500 - all applicable
Low	Units>10,emp>30 - all applicable

In order to understand the existing market and industrial trends in the district, we conducted a survey of employers from across 15 industries. The sample of employers consisted of functionaries from diverse industries located in the district.

Table 49 No. of sampled industries in YSR district

Sector	No. of Industries Sampled
Agriculture & Allied	2
Construction Material & Building Hardware	4
Glass manufacturing	1
Leather & leather goods	1
Machinery, Electricals & Manufacturing	1
Plastic & plastic goods Manufacturing	2
Textile & Handloom	4

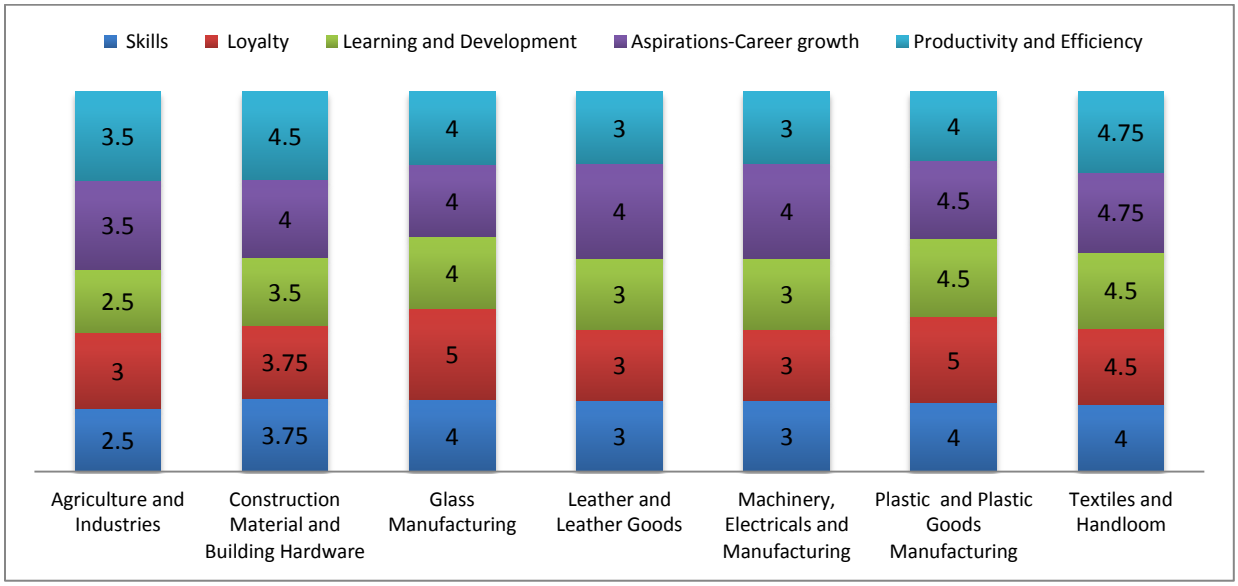


Figure 83 Employers demands in terms of expectations from workers

When the employers were asked to rate their expectation from their workers on a scale of one to five, employers from the textile and plastic sectors showed a relatively greater desire for worker characteristics across all the traits offered for ranking, with average ratings of between 4 and 4.75. For most of the employers, productivity and efficiency was an important skill in their employees.

4.4.7 Composition of workforce

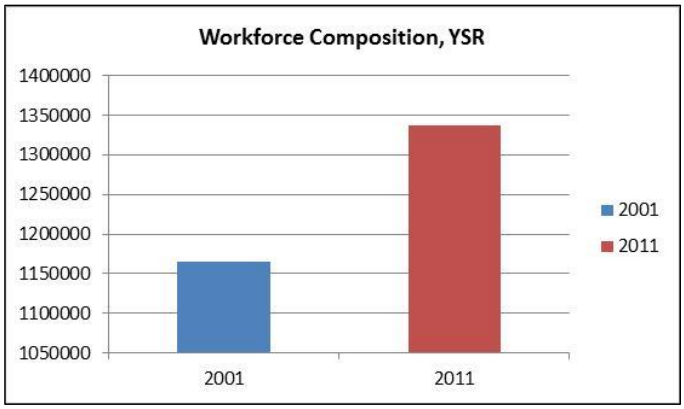


Figure 84 Projected Workforce; Source: Deputy Commissioner of Labour, 2012

Cuddapah recorded the fourth largest position in the state with the overall workforce supply. A noticeable factor in this district is that the majority of the workforce is engaged in some industrial activity. In the near future, allied service sector is expected to grow in the district.

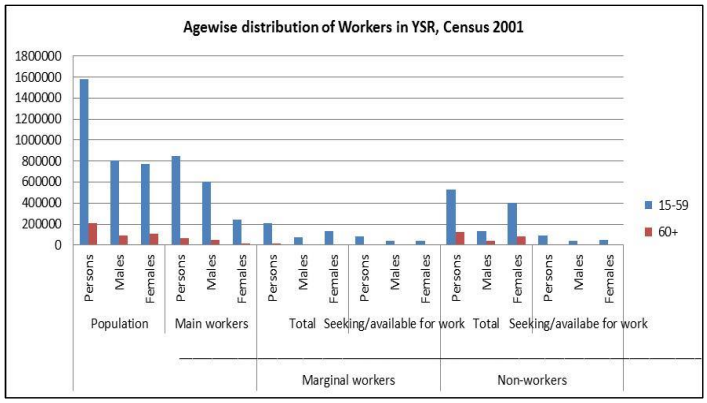


Figure 85 Age wise distribution of workers

According to the provisional Census 2011 data, the working population in YSR district is expected to rise by 14.7percentage points against the 2001 data. It is pertinent to note that YSR's total workforce participation rate is just 44.8 percent, the fourth lowest in the state. The total male working population is 56.8 percent against the female working population of 32.6 percent. Despite the low overall figure, the proportion of the female working population in YSR stands at 4.2 percent, which is higher than the state average.

Out of the total working population, the main worker population comprises 35.8 percent of the total population followed by the marginal workers at 9 percent and non-workers at 55.2 percent. The district recorded a higher proportion of marginal and non-workers as compared to state average, with figures of 2.7 percent and 1 percent respectively. Among main workers district 24.3 percent are engaged as agricultural laborers followed by other industries at 31.5percent, cultivators at 39 percent and household industries at 5.25percent YSR's industry is dominated by sectors like tourism, hospitality and the construction based work. It is interesting to note that the district recorded the fifth highest position in the state when it came to workers engaged in household industry.

In YSR, a major proportion of the main workers are expected to be in the age group of 15-59 years. Interestingly, among the non-workers and marginal workers, females in the age group of 15-59 outnumber the males.

4.4.8 Projected Workforce Demand

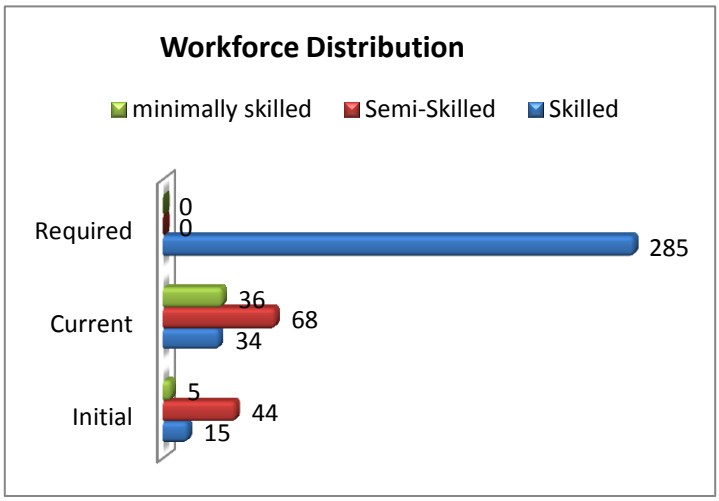


Figure 86 Workforce distributions in sampled industries in terms of skilling as per primary survey

A total of 15 industries were sampled for the survey to represent seven major sectors in the district. The figure above shows the availability of skilled, semi-skilled and minimally skilled workers according to their numbers at the time of the establishment of the industry, their present strength and their projected strength. 'Agriculture & allied industries' expanded their numbers of skilled, semiskilled and minimally skilled workers at the time of industry establishment. In the minimally skilled category, agriculture & allied industries and construction

material & building hardware report retention and an increase of their worker strengths from the time of establishment to the current date.

Across the seven sectors represented in the sample, the proportion of skilled workers is greater, followed by semi-skilled workers and finally, minimally skilled workers. Only one of the sectors represented in the sample, 'construction material & building hardware' had relatively large worker strength. None of the sampled employers reported any vacancies for any category of workers.

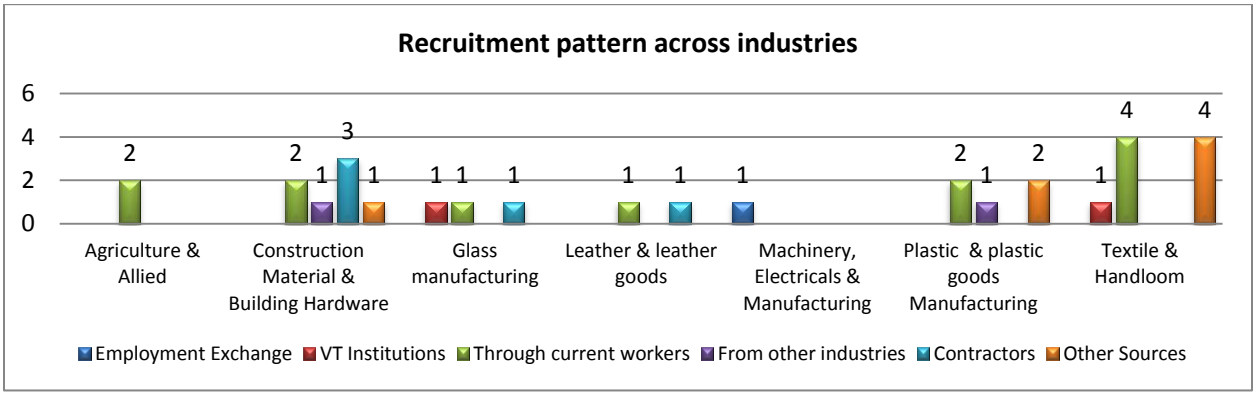


Figure 87 Sources of recruitment of current workers as per sample study

Most of the industries recruit based on references from their current workers. Other methods of recruitment reported include going through contractors and poaching workers from other employers. Through employment exchange followed by VT institutions reported worse sources for workers recruitment. This is an area of concern; more efforts need to be put in by the employment exchange and VT institutes to connect with industry.

Incremental manpower demand over the years till 2021-22

The table below shows the incremental manpower requirement across various sectors over the years till 2022. Agriculture sector continues to be the largest employer over the years. It is expected that the construction sector, hospitality and BFSI sector will require high incremental manpower till 2022. The manufacturing units are also growing and will require substantially skilled manpower.

Table 50 Projected labor percentage of workforce demand requirement till 2022 across sectors

Incremental	2012-2017			2012-2022		
Industry	Skilled	Semi Skilled	Minimally Skilled	Skilled	Semi Skilled	Minimally Skilled
Agriculture & Allied Activities	6312	31560	119929	5979	29893	113592
Mining & Quarrying	2219	-1833	1782	-13	-11	-14
Construction	30465	37145	26559	30771	32969	49234
Tourism, Travel & Hospitality	49597	-7049	-9462	16237	7307	4871
Transportation,	-2876	-1465	-488	-4105	-2091	-697

Logistics, Warehousing & Packaging						
IT & ITES Sector	8820	923	168	9121	955	174
Banking & Financial Services Insurance	17116	2200	574	13461	6057	4038
Real estate	996	1741	-1726	-416	-446	-666
Other Services	5930	-7034	-6250	-6693	-3020	-1990
Electricity, gas & water supply	348	199	149	348	209	139
Food processing	-423	-257	-166	-423	-254	-169
Chemicals & Pharmaceuticals*	-251	-157	-94	-251	-151	-101
Rubber and plastic products*	925	523	402	925	555	370
Auto & Auto components*	-81	-51	-31	-81	-49	-33
Metals & non metallic products*	671	248	423	671	403	269
Textile & leather	3558	2036	1521	3558	2135	1423
Wood & Paper products	1446	827	619	1446	868	579
Total	124773	59558	133909	70535	75329	171019

*Manufacturing Sectors

4.4.9 Skill Gap Analysis

The skill gap analysis was performed by undertaking a primary research on the employers through the survey instrument; structured questionnaire designed to map the current and the future skill requirements of the industries identified in the district on the basis of manpower absorption and production in high growth industries in the district. The analysis factored in industry linkages with vocational training institutes, employment exchange and with other sources for workforce absorption and retention and would highlight on the mismatch between industry skill requirements and the skill pool emerging. The situation of skill gap for the district for 2012-17 and 2017-2022 based on projections is represented in the table below.

Table 51 Incremental Skill Gap across workforce skilled, semi-skilled and minimally skilled

Incremental Workforce Demand & Supply Gap						
	2012-2017			2017-2022		
Sectors	**Skilled**	**Semi-Skilled**	**Unskilled**	**Skilled**	**Semi-Skilled**	**Unskilled**
Demand	124773	59558	133909	70535	75329	171019
Supply	8483	6867	111315	3804	11604	104190
Gap	116289	52691	22594	66731	63724	66829

As per the in-depth interviews with senior functionaries indicated the future demand for skilled manpower in various trades was expected to high. Some of the important findings were as follows:-

- Industry was positive about growth in the coming years. The scope for development was seen huge given the vast reserves of minerals.
- Industry felt that the VTP needs to work along with the industry as technology is being updated in all sectors. The partnership between VTPs and industry needs to be strengthened in order to keep the curriculum updated.
- Demand for skilled manpower will be high in next 3-5 years across services, manufacturing and agri based sectors.
- The scope for self-employment and entrepreneurship are high. However, the government may need to create schemes to raise awareness about entrepreneurship as well as create incentives.

4.4.10 Youth Aspirations

The youth survey study was primarily undertaken through a survey. The questionnaires were designed to capture youth aspirations and perceptions under various categories as employed, self-employed, and unemployed and trainees against the sample size. The objective of the youth survey was mainly to understand the perceptions of youth. In-depth interactions were held with respondents to provide deep insight and understanding.

The respondent categories were employed, self-employed, unemployed and trainees. Among the youth surveyed, 61percent were college educated and the remaining 39 percent had completed high school. Also, 35 percent of the respondents were undergoing training at Government VTIs and the other 65percent were at Private VTIs.

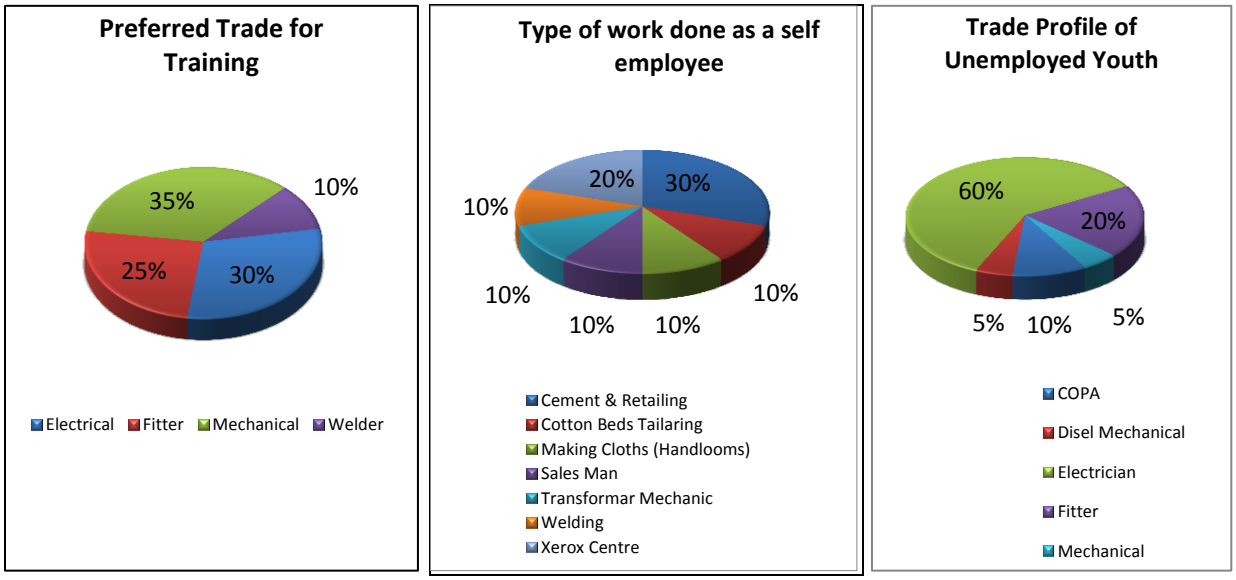


Figure 88 Profile of respondents (trainee, self-employed & unemployed youth) by trade in sample of YSR

Courses in the Mechanical trade appear to be the most popular, with 35 percent of the surveyed youth opting for it. Another 30 percent took courses in the Electrical trade .Courses for Fitters also had some potential to attract trainees. Among the self-employed, 30percent selected jobs in cement & retailing followed by 20 percent in Xerox centres. Out of those currently unemployed, 60 percent chose the Electrical trade. Fitters were the second most popular choice with 20 percent opting for the trade.

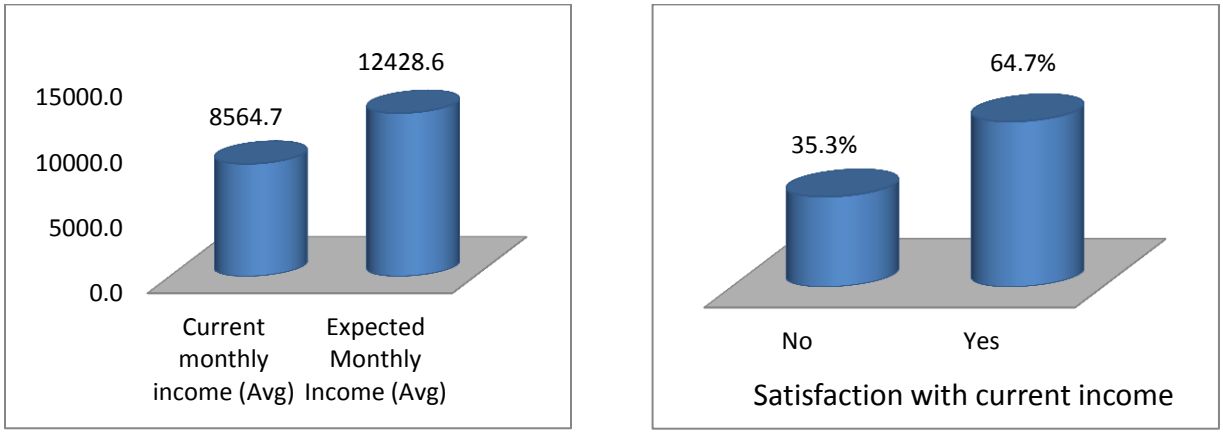


Figure 89 Salary wise expectations of youth

When the sampled youth were interviewed about their salary structure it came out that the youth are not satisfied with the salary structure. A minimum average hike of Rs.3864/-is expected across different trades. While a majority of respondent youth (64.7%) appear to be satisfied with the current remuneration received, the remaining respondents were not satisfied (35.3) with the present salaries.

Parameters considered by District's youth while opting for vocational training

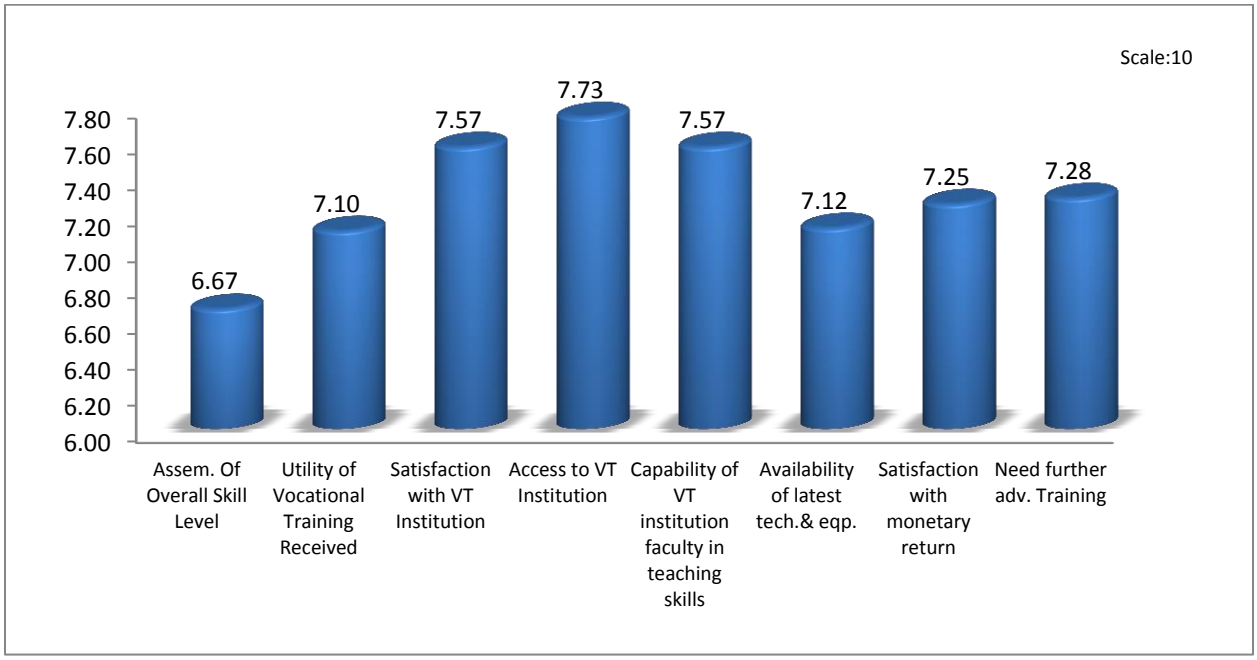


Figure 90 YSR's Youth's perception, need and aspirations –Sample Group

The survey indicated that for the youth of YSR district, access to VT institutions in their own area was of key importance. However, assessment of overall skill level gets the lowest rating of 6.67 on a scale of 10. Many among the surveyed youth expressed their interest and need in further advanced courses. Besides this, 64.7 percent of the respondents said they were not satisfied with their current salary levels. On an average, respondents expected a hike of INR 4000.

4.4.11 Recommendations: Skill Development Eco System

YSR is fast emerging as an important commercial center in the southern part of the state. Trades in mineral based industry, horticulture, and service are flourishing. Training in services such as electrical and engineering works, healthcare such as diagnostic and testing centres, management consulting services, and computer repairing/servicing are required in the district. Training in agro based industries such as seed & oil processing, food processing, and poultry should be a new focus. There is a need for market-based entrepreneurship courses in textiles and handlooms.

Table 52 Key demand sector in the district

Sectors	Growth Opportunities
Agriculture & allied services	• Agriculture & allied sector employs largest manpower in the district. The sector has witnessed CAGR of 8 percent from 2004-05 till 2009-10. • The sector contributes highest to the GDDP in primary sector. • Currently no training courses are being provided in this sector.
Construction	• Construction sector is the highest contributor (48 percent) to the GDDP within tertiary sector. • In terms of anticipated demand till 2021-22, the sector has the second highest incremental demand of approx. 2.07 lakh workforce.
Textiles, wood and paper products	• Need focused courses to address the requirement of these sectors. • There is a scope to provide entrepreneurship courses in these sectors.
Tourism, travel & hospitality	• Tourism and hospitality is the highest contributor (27 percent) to the GDDP in tertiary sector. • The sector witnessed CAGR of approx. 7 percent from 2004-05 till 2009-10 • Currently, not many courses are being provided in this sector. Thus, there is a need to create training capacity to address the industry demand in the sector.

The key stakeholders' contributions should be as follows:

State:

Cuddapah recorded the fourth largest position in the state with the overall workforce supply. A noticeable factor in this district is that the majority of the workforce is engaged in agriculture and industrial activity. In the near future, allied service sector is expected to grow in the district.

Action Plan:

a) State need to focus on up-skilling the workers already engaged in the agriculture and industrial activities. Incentives need to be provided for industries to support their workforce to undergo skill assessment and provide them with certification.
b) State should also focus on providing relevant career counselling facilities for youth and workers. Career counselling should be provided at the schools and college levels, more information should be provided on district website should help in making better career choices.

Training Partners:

Action Plan:

a) Supplementary training programs may be run for agro and allied sectors. These courses will help them bridge the current quality mismatch and train them in technologies.
b) Training partners should build more capacity in tourism & hospitality sector.
c) Training partners should focus on utilizing existing training capacity in construction sector to cater to growing industry demand.

Industry:

Action Plan

a) Vertical mobility of the current workers within an organization continues to remain limited in the district. This is needs to be urgently addressed specially in mining and other ancillary industries.
b) Industry should engage in on-the job training of their workers and certify them based on their prior experience and abilities. For the same they would need to collaborate with assessment agencies such as SSC.

NSDC

Action Plan:

a) NSDC needs to engage with industries to help them certify their existing workforce with the help of SSC.
b) NSDC should act as an enabler in establishing train the trainer institutes and modules in the district

4.5 Mahabubnagar

The subsequent section highlights the economic base and occupational structure of the district Mahabubnagar. It identifies the high impact industries and skills needed to match expected growth.

The latter section represents the projected workforce demand and supply in the coming years and the optimization plan for the district.

4.5 Mahabubnagar District

4.5.1 Mahbubnagar District Demographic Profile

Mahbubnagar is the largest district in the Telangana region of Andhra Pradesh. The district is known for its seasonal migrant laborers, called Palamuru laborers, who work in construction and agricultural activities elsewhere in the state and in the country.

Table 53 Mahbubnagar district at a glance

Mahbubnagar at a Glance				
Population	**Mahbubnagar District**		**Andhra Pradesh**	**Remarks**
	Provisional Census 2011	**Census 2001**	**Provisional Census 2011**	
Total Population	4042191	3513934	84665533	
Total Population - Male	2046247	1782340	42509881	
Total Population - Female	1995944	1731594	42155652	
Population Growth	15.03%	14.20%	11.10	
Area Sq. Km	18432		275100	
Density of Population (Density/Area sq.Km)	219	191	308	
Proportion of Andhra Pradesh population	4.77%	4.61%		
Decadal growth of population (2001 - 2011)	15.03%	14.20%	11.10%	
Literacy rate	56.06	44.41	67.66	
Male Literacy	66.27	56.00	75.56	
Female Literacy	45.65	31.89	59.74	
Sex ratio (per 1000)	975	972	992	
Worker population participation rate		52.14	45.7	Census 2001
Cultivators to total workers		30.4	22.52	Census 2001
Agriculture laborer in workforce		42.8	39.64	Census 2001
Household workers		3.90	4.71	Census 2001
Other industry and services		22.9	33.13	Census 2001

The district is divided into four revenue divisions (Narayanpet, Mahbubnagar, Gadwal and Nagarkurnool). These are made up of 64 mandals, 1,475 villages, seven towns and four municipalities. The district holds the very lowest position in the state when it comes to the human development index. At 0.397, Mahbubnagar's HDI is considerably lower than the 0.537 figure for all of Andhra Pradesh. The district also has the lowest proportion of urban population in the state, standing at 15 percent in 2011 compared to 10.57 percent in 2001. Furthermore, Mahbubnagar has a per capita income of INR 28,131, against the state average of INR 37,061 at constant prices 2004-05. That is the lowest per capita income in Andhra Pradesh. All these trends indicate there are limited job opportunities in the district.

As per provisional Census 2011 data, Mahbubnagar accounts for a population of 4.042 million with a sex ratio of 975 females per 1000 males. That's compared to the 2001 Census figure of 972. The total area of the district is 18,432 sq km and accounts for 4.77 percent of the total area in Andhra Pradesh, making it the second largest in the state.

Among the 23 districts in the state, Mahbubnagar has the second highest decadal population growth, reaching 15.03 percent for the decade 2001-2011. The literacy rate of Mahbubnagar in 2011 was 56.06 percent compared to 44.41 percent in 2001. Despite this improvement, the district has the lowest literacy rate in Andhra Pradesh. Broken up by gender, 66.27 percent of males and 45.65 percent of females are literates. One bright spot, however, is that literacy has increased dramatically. Male literacy has jumped from 56.63 percent in 2001 to 66.27 percent in 2011; while female literacy has also shot up to 45.65 percent from 31.89 percent.

It is pertinent to note that Mahbubnagar's total workforce participation rate of 52.14 percent is second highest in the state. Out of the total working population, the female workforce participation rate is much lower than that for males. Females primarily make up the population of marginal workers.

Out of the total population, main workers make up 42.2 percent of the total population, while 9.7 percent are marginal workers. Out of the main workers population, 35.68 percent are cultivators, followed by 35.56 percent who are agricultural laborers. Household industries make up another 3.86 percent and other industries account for 24.91 percent.

4.5.2 Economic Profile

The district's Gross district domestic product (GDDP) has grown at the growth rate (CAGR) of 8.94 percent from 2004-05 till 2009-10. In 2009-10, tertiary sector contributed 46.30 percent to the GDDP primarily due to the contribution of trade, hotels and restaurants sector followed by primary sector which contributed 25 percent to the district's GDDP.

As shown in the chart below, the contribution of the primary is relatively higher as compared to other districts in the State. The CAGR of primary sector has been in the highest among all the three sector, the sector witnessed a growth of 13.41 percent from 2004-05 till 2009-10.

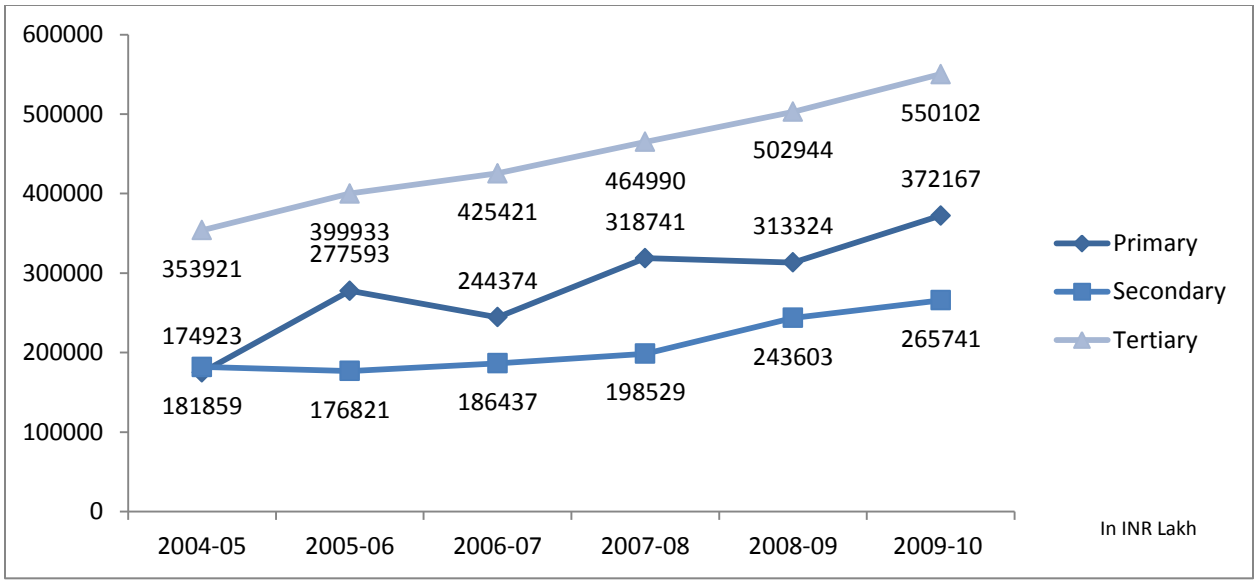


Figure 91 Sector level contribution to the GDDP, Mahbubnagar

Primary Sector

The primary sector (agriculture, forestry &logging, livestock, fishing and mining & quarrying) contributed 31.33 percent to the GDDP in 2009-10. Agriculture sector remained as the highest contributor to the primary sector, contributing 59 percent to the primary sector in 2009-10, followed by livestock (29 percent), forestry and logging (6 percent), fishing (3 percent) and mining and quarrying (3 percent).The CAGR for primary sector is 13.41 percent from 2004-2005 till 2009-10 with livestock registering highest growth of 31 percent from 2004-05 till 2009-10.

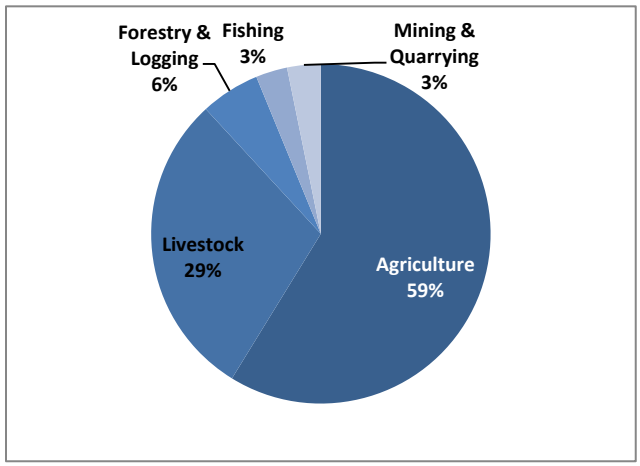


Figure 92 Primary sector contribution to GDDP, 2009-10

Secondary Sector

The contribution of the secondary sector to district GDP in 2009-10 was approximately 22.37 percent. The sector has shown a CAGR of 6.53 percent from 2004-05 till 2009-10, primarily due the contribution of construction sector.

The construction sector has shown an impressive CAGR of 11.61 percent from

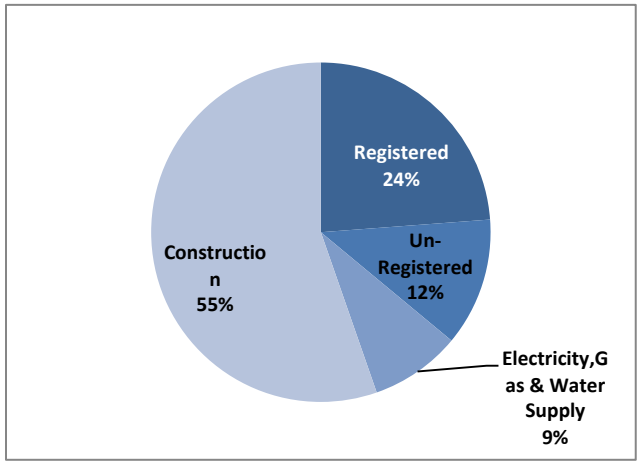


Figure 93 Secondary sector contribution to GDDP, 2009-10

2004-05 till 2009-10. However the growth of manufacturing sector has been negligent with registered manufacturing units growing only by 0.66 percent and unregistered manufacturing units by 4.24 percent from 2004-05 till 2009-10.

Tertiary Sector

The contribution of the tertiary sector has been significant to the district's economy over the years. In the year 2009-10, the contribution of the tertiary sector was 46.30 percent to the district's GDDP. The sector has witnessed the CAGR of 7.63 percent from 2004-05 till 2009-10, primarily due the trade, hotels and restaurants sector.

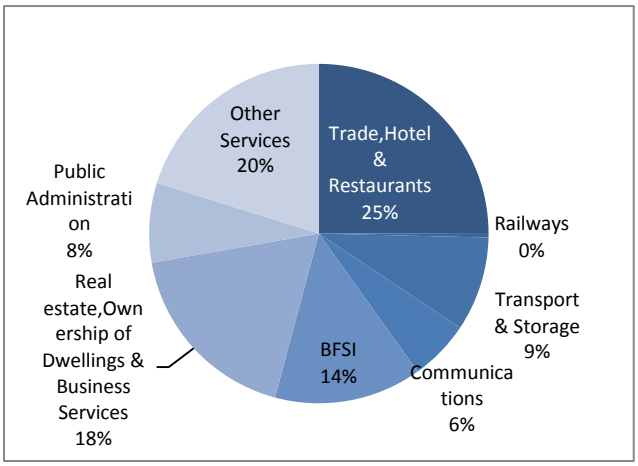


Figure 94 Tertiary sector contribution to GDDP, 2009-10

Three sectors which have shown a high CAGR from 2004-05 till 2009-10 are transport by other means & storage (10.95 percent), communications (15.16 percent) and BFSI (13.46 percent). Although, trade hotels and restaurants have contributed highest to the growth of the sector, but it has shown a CAGR of only 6.63 percent from 2004-05 till 2009-10. Real estate and other services grew by 5.32 percent from 2005-05 till 2009-10.

Industry Mapping

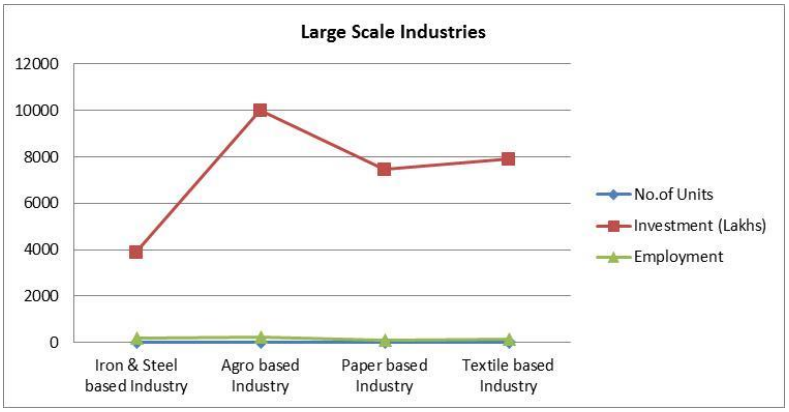


Figure 95 Large Scale Industries, Mahbubnagar;Source: District Industries Centre, Industry Profile report

While Mahbubnagar is industrially backward, it is not far from the international airport at Shamshabad, which could enhance the prospects for export oriented units. Industry in this district contributes to a total of 3.42 percent of state GDP at constant prices from 2004-05 to 2009-10.

Mahbubnagar's food based industries hold a prominent place in the state. It is also one of the few districts where both large and small scale industries co-exist and provide considerable contribution towards state GDP. Industrial development is also leading to growth in consumer durable goods. This in turn means greater scope for repair and maintenance related trades in rural areas. Mahbubnagar has one industrial estate and four industrial development areas at Kothur, Jadcherla, Palem, and Gadwal. There are six industrial areas in the district.

Large & Medium Industries

Mahbubnagar district has 74 large and medium scale industries covering almost all areas like food, textiles, minerals, chemicals etc. Most of these enterprises have also set up ancillary units. Hence the scope for ancillary units is by and large very much limited to the existing units. The district is well known for its artistic Zari silk sarees from Narayanpet, Kothakota, Gadwal, and Tippadampally.

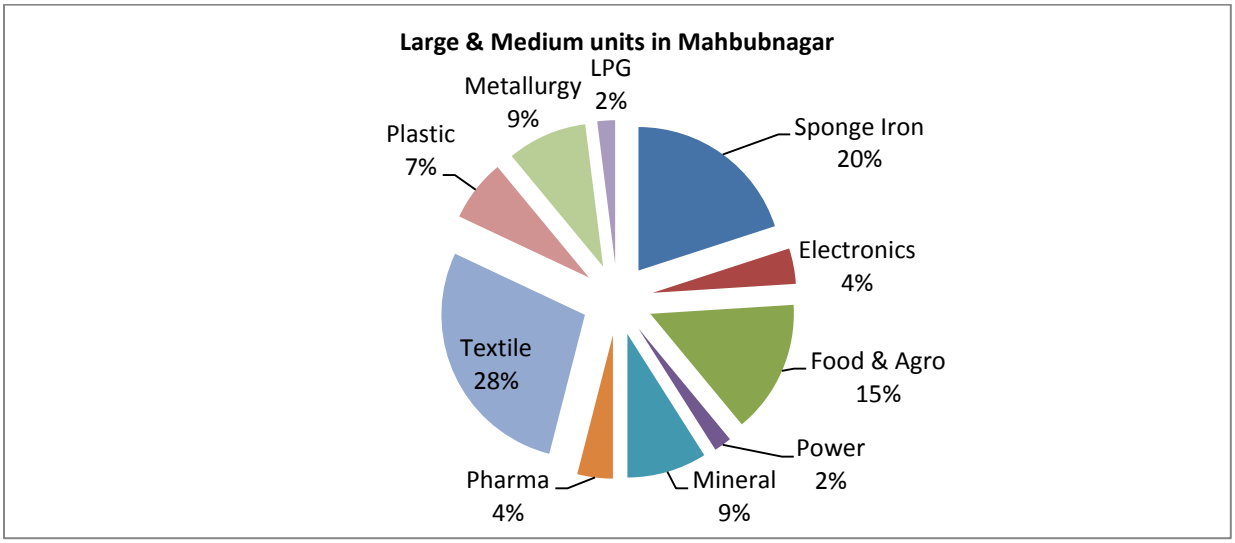


Figure 96 Large & Medium units in Mahbubnagar. Source: DIC Data

Small Scale Industries

There are 3,308 registered small scale industries in Mahbubnagar with an investment of INR 1541 million and providing employment to 20,975 people. The district has a rich industrial base providing strong potential for small scale industries. The district has a major traditional cluster of silk weavers at Gadwal and Narayanpet, and Kothapet who weave the famous Gadwal silk saris. The saris have a niche market, and have tremendous export value. The district has a large concentration of about 358 raw and parboiled rice mills, mainly in the mandals of Mahbubnagar, Jadcherla, Farooqnagar, Kalwakurthy, Achampet, Gadwal Pebbair, and Kothakota

Details of major clusters

NABARD is implementing a Cluster Development Programme in the metal toys/mementoes cluster of Jadcherla since 2003. The objective of the program is to strengthen the existing cluster and provide a competitive advantage through technology upgradation/transfer of technology, improving access to raw materials, skill upgradation, managerial inputs, and credit and marketing support. The artisans have so far been imparted advanced skill training. An NGO has been assisted with a grant of INR 74,300 for setting up a Common Service Centre at Jadcherla. NABARD also proposed to take up the promotion of the handloom sector in Mahabubnagar. Gadwal saris are world renowned for their exquisite zari work and colorful combinations. However, the number of weavers in Gadwal town has been decreasing constantly, from a few thousands to a few hundreds, as the weavers have been shifting to other

economic activities. The reason for decrease in the number of weavers is reported to be an increase in the prices of raw materials, like zari, cotton, and colors.

4.5.3 Education Infrastructure and Utilization

Mahbubnagar has the lowest literacy rate in the state, making education a top priority. At present, the district lacks the educational infrastructure needed to provide quality education to local youth. This has led to students migrating to other districts.

Table 54 Education Statistics Source: Statistical Abstract report, 2011

Schools	Total Number	No. of Enrollments
Primary Schools	3133	277206
Upper Primary Schools	889	147360
Secondary Schools	958	237389
Higher Secondary Schools	9	5498

Education sector plays an important role in the socio-economic development of the state at large. The literacy rate of Mahbubnagar in 2011 is 56.06 percent compared to 44.41 percent in 2001 and has shown some improvement. Mahbubnagar is also struggling to keep children in school. While the gross enrolment ratio for classes I-V is 119.56 percent, that number falls to 83.02 percent for classes VI–VIII, and then to 68.23 percent in classes VIII–X. In contrast, the ratios for the state are 100.46 percent, 84.76 percent, and 69.51 percent respectively. The dropout rates show an increasing trend over class I-X of 59.97 percent, compared to the state average of 46.21 percent. Immediate actions are needed in Mahbubnagar to improve the quality of education.

As per Census 2001 data, the total number of graduates and above in Mahbubnagar district was 67,575. They made up 2.39 percent of all the graduates in the state. It is interesting to note that total number of rural graduates is higher than urban graduates by a headcount of 6,035. The proportion of rural graduates and above beat the state average by a higher margin of 21.63 percentage points.

There are 10 private engineering colleges in Mahbubnagar, but none from the government. These engineering colleges offer various courses and have a combined intake capacity of approximately 1,970 students per year. Mahbubnagar holds the second lowest position from the bottom with a marginal number of engineering colleges in comparison to other districts in the state. Major courses offered include computer science and engineering courses in electronics, telecom, computers, electrical engineering, electronics, mechanical engineering, and instrumentation engineering. There are five polytechnic colleges with a total intake capacity of just 1,260 students per annum, making Mahbubnagar the district with the smallest number of polytechnic colleges.

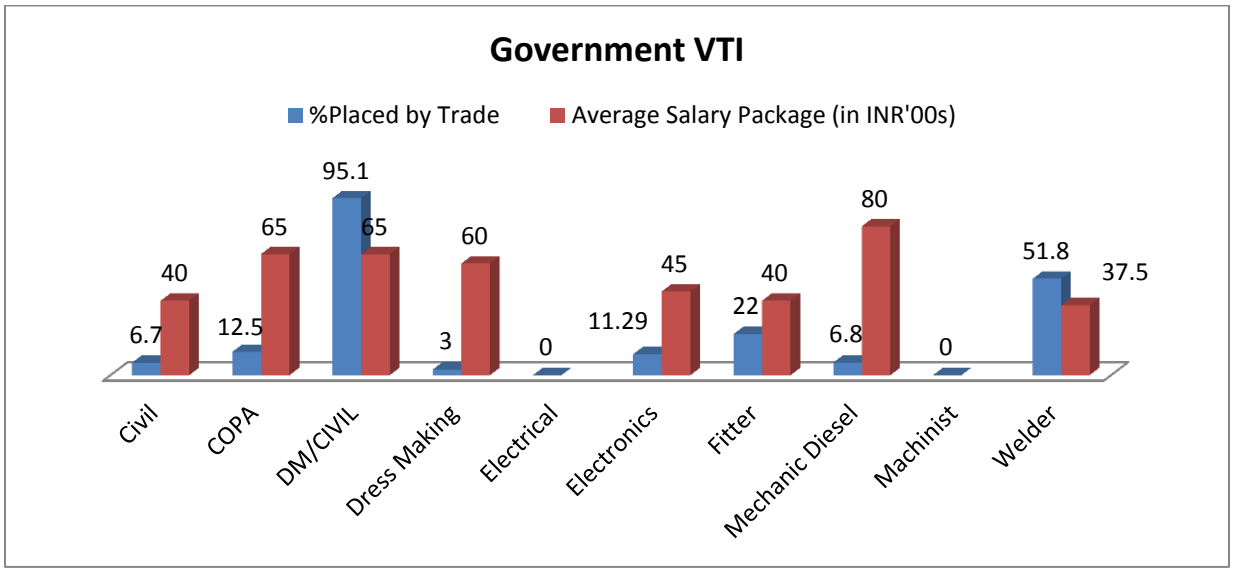
There are 19 vocational training institutes in the district. Their overall intake is around 1,530 students per annum. Out of these, five are government ITIs and the rest are private. These institutes impart training in variety of courses ranging from dress making, to electronics, stenography, and welding. New trades are introduced based on the emerging industry

demand. All the trades and units are permanently affiliated to the National Council of Vocational Training of the Director General of Employment and Training.

Table 55 Courses offered in government and private VTIs (sample), Mahbubnagar

Government VTI Trades		Private VTI Trades
Automobile	Fitter	Civil
Civil	Instrument Mechanic	Electrical
COPA	Mechanic Diesel	Electronics
DM/CIVIL	Machinist	Fitter
Dress Making	R&TV	Mechanic Diesel
Electrical	Turner	Welder
Electronic Mechanic (EM)	Welder	
Electronics		

The government VTIs sampled for the study offer 15 different trades for training while the private VTIs offer six trades. The capacity of ITIs is on average lesser than the district average. The dress making, electronics, and fitter trade appear to be the most popular in government VTIs, followed by the course for diesel mechanics. In private VTIs, the electronics trade followed by the fitter trade is the most popular. Also, private VTIs are offering around three times the number of seats in the electrical trade as compared to government VTIs. Despite this, government VTIs appear to have many vacant seats in most trades except the DM/Civil course. Private VTIs also have trouble filling all their seats except those for the electricians' course.



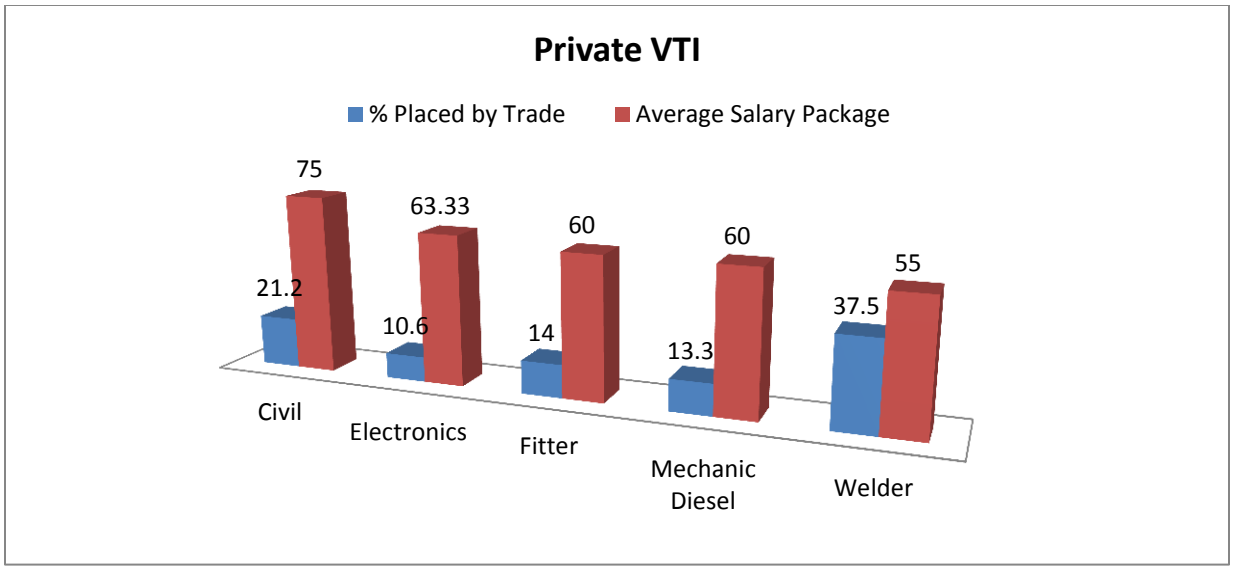


Figure 97 VTIs with placement percentage and average salary across trades, Mahbubnagar

An overview of placement records by trade in government VTIs indicates average prospects in all trades except three: Those for electricians, machinists and dress makers. Placements in private VTIs are also good across all trades except the one for electricians. Also, the average salaries per trainee indicate the earning prospects for candidates. Welders from government VTIs get the least salaries on average, while students from the civil trade at private VTIs can expect high salaries. Trainees from government VTIs largely get placed through campus interviews, while a few got jobs by proactively approaching industry. Among private VTIs, almost all placements seem to occur through campus interviews. The local employment exchanges do not seem to be playing much of a role.

Table 56 Approved staffing at VTIs

Positions	Approved	Actual
Managerial	33	24
Academic	36	24
Support	6	3
Private VTI		
Positions	Approved	Actual
Managerial	29	25
Academic	4	4
Support	8	7

Government VTIs appear to be understaffed in terms of the managerial, academic and support staff. In the case of Private VTIs, there is a very small shortfall of manpower in the managerial and support categories. The understaffing in government VTIs is enough to hamper their functioning.

4.5.4 Placement & Absorption Trend

In Mahbubnagar district, there are two employment exchanges, and the number of candidates in the live register during 2009-10 was 1,05,269. Out of that number, only some 118 candidates were placed.

Candidates can also get placed through the Rajiv Yuva Kiranalu mission, which helps educated youth find jobs. However, its Job Mela has recorded very few placements in recent times.

4.5.5 Sector wise mapping of industries in Mahbubnagar

District wise, the existing sectors were mapped against the 20 high growth sectors identified by NSDC as presented in the table below. This factored in the concentration of SSIs as the major parameter because large and medium scale industries are fewer in number. It also represents new sector other than the listed sectors prevailing in Mahbubnagar. Projections were made on the labor growth based on demand in that particular sector on the triggers like investment, employment and numbers.

Industry wise Sector Mapping					
NSDC (High growth sectors)	**Units**	**Employment**	**High**	**Medium**	**Low**
Agriculture and Allied	23	1378			
Automobile & Auto components					
Food Processing (Food beverages and Tabacco products)	487	5635			
Electronics Hardware	18	2658			
Textiles and Garments	22	6458			
IT					
Tourism, Hospitality and Travel					
Building and Construction					
Chemicals and Pharmaceuticals	32	1780			
Healthcare	86	301			
Education/ Skill Development	60	100			
Banking/ Insurance and Finance	224				
Manufacture of Wooden furniture	103	722			
Paper and Publication	12	353			
Rubber and Plastics	18	400			
Petroleum	3	153			
Minerals based industries	108	5076			
Service based industries (Repairs & maintenance: R&D)	17	1214			

High	Units>200, emp>1000 - all applicable
Medium	Units>100, emp>500 - all applicable
Low	Units>10,emp>30 - all applicable

Table 57 Sector wise mapping of Industries; Source: DIC

In order to understand the existing market and industrial trends in the district, we conducted a survey of employers from across 11 sectors. The sample of employers consisted of functionaries from diverse industries located in the district

Table 58 No. of sampled industries for industrial survey

Sector	No. of Industries Sampled
Agriculture & Allied	1
Chemical & chemical products	2
Electronics & IT Hardware	2
Food Processing & Products	1
Glass Products	1
Machinery, Electricals & Manufacturing	1
Mines, Metals & Minerals	9
Paper Based	1
Stone Querying, cutting & Polishing	1
Textile & Handloom	5
Wooden Products, Handicrafts	1

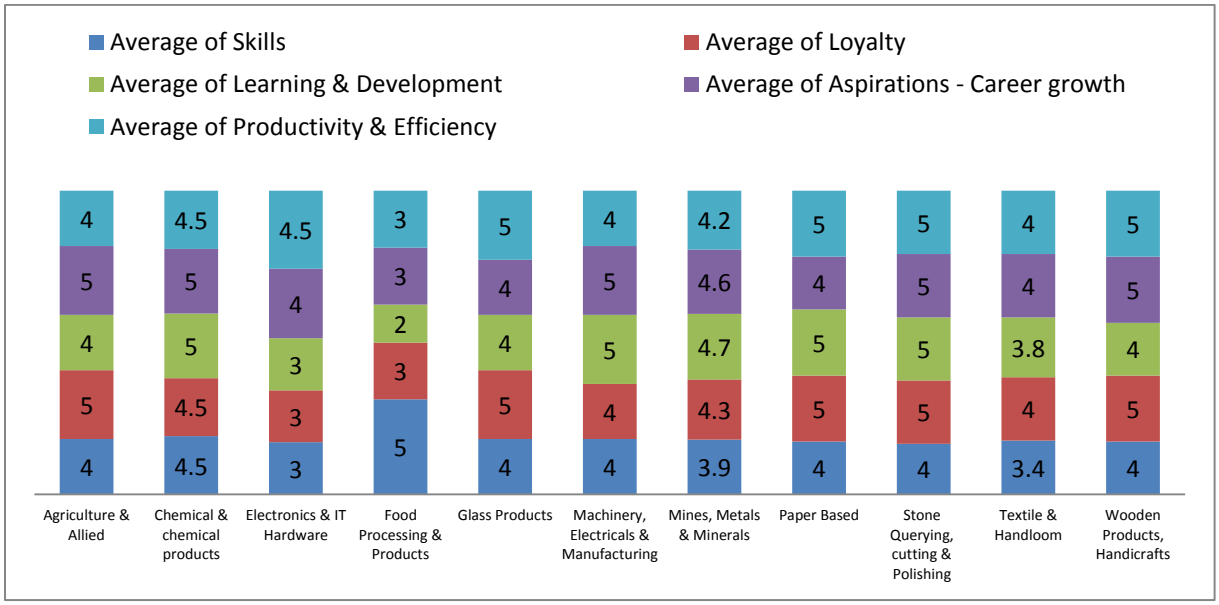


Figure 98 Expectation of employers as per sample survey

When the employers were asked to rate their expectation from their workers on a scale of 5, employers from stone quarrying, cutting & Polishing sector reflected a relatively higher desire for worker characteristics across all the traits offered for ranking, with higher average ratings between 4 and 5.

Most of the employers' ratings were above 4 which indicate higher level of expectation from employee across all the sectors.

Major demand of the workforce is expected from the food based industries followed by textiles, chemicals, pharmaceuticals, minerals, and steel based. Agriculture is the main occupation of the district. Industrial growth and the development of the district largely depend on the increase in

agricultural production. Some of the large players in the district include Vibha Agro Tech Ltd, Divya Shakti Paper Mills, Stem Core Alloys And Ispat Limited.

4.5.6 Composition of workforce

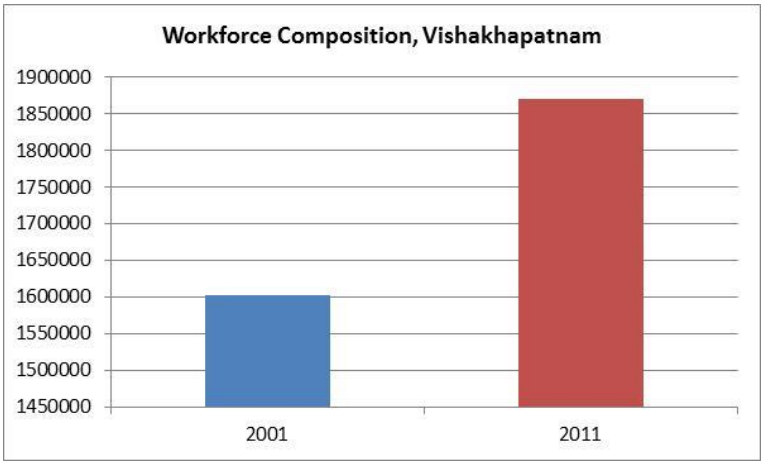


Figure 99 Projected workforce; Source: Deputy Commissioner of Labour, 2012

The district has the highest manpower supply over the years till 2022. The majority of the district's workers are engaged in agriculture. Looking at the present resources and skill set of the workforce, agro based industries are likely to play a key role in future.

According to the provisional Census 2011 data, the total workforce in Mahbubnagar district is expected to rise by 14 percent. It is pertinent to note that the total workforce participation rate of 52.14 percent is the second highest in the state.

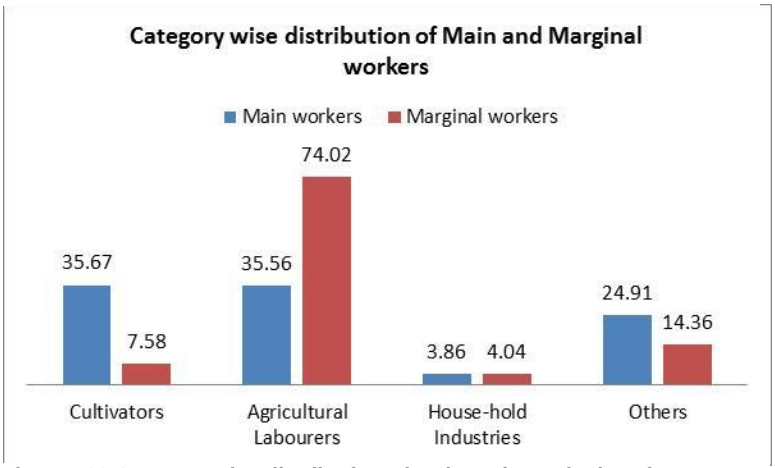


Figure 100 Category wise distribution of main and marginal workers; Source: Census 2001

The workforce participation rate has increased slightly for both males and females. There has been a decline in the proportion of main workers with a corresponding increase in the proportion of marginal workers, most of whom are agriculture laborers. It is estimated that roughly two-fifths of the rural workforce is employed in rural non-farming activity. Most marginal workers are in rural areas, indicating the high degree of unemployment outside urban areas.

The workforce participation rate varies according to the stages of economic development across size, age and sex. In Mahbubnagar, it has been estimated that the major proportion of the workers in the age group of 15 - 59 years belong to the main workers category. Interestingly, among the non-workers and marginal workers, females in the age group of 15-59 outnumber the males.

4.5.7 Projected Workforce Demand

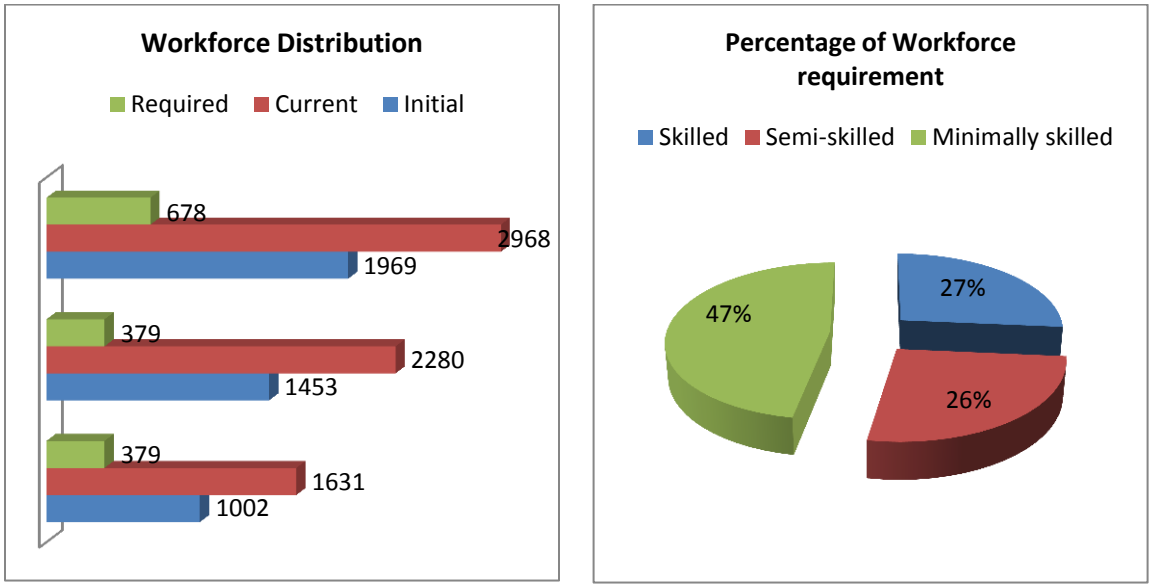


Figure 101 Workforce distributions among skilled, semi-skilled & minimally skilled

A total of 25 industries were sampled for the survey to represent 11 major sectors in the district. Availability of skilled, semi-skilled, and minimally skilled workers at the time of the establishment of the industry, along with their present and required strength is shown in the above table. All of the 25 sampled industries across the eleven sectors report an increase in their skilled worker strengths from the time of establishment up to the current date. All industries reported that they could absorb more skilled workers, with sectors like mines, metals & minerals reporting the greatest ability and food processing & products, the lowest. All the sampled industries have expanded the number of workers since the time they were established. They also say they can hire more semi-skilled workers. Also, in the minimally-skilled category, all workers report an increase in their total strength.

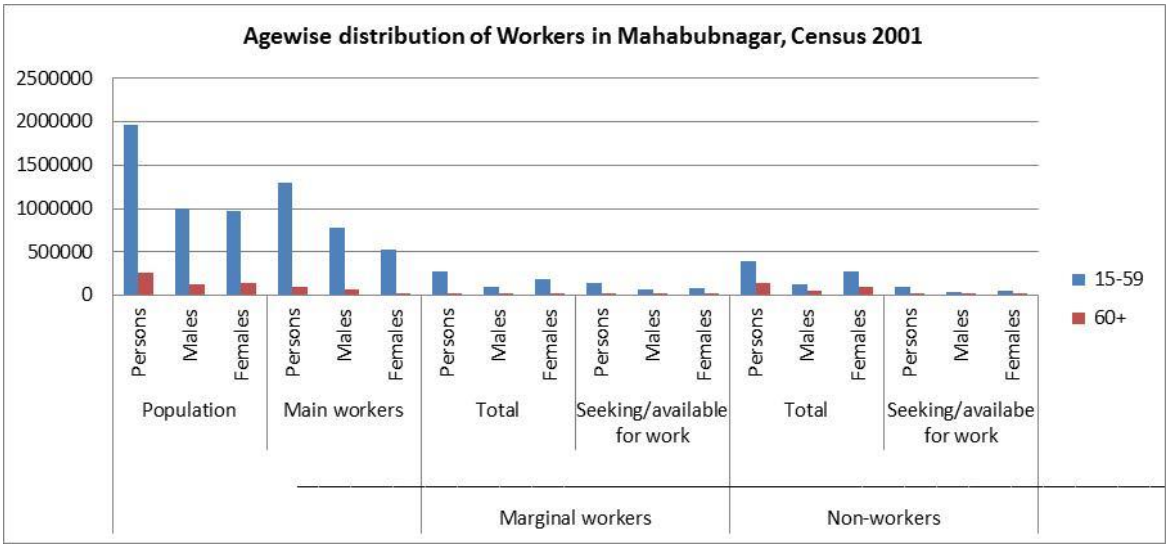


Figure 102 Workforce distributions among skilled, semi-skilled & minimally skilled

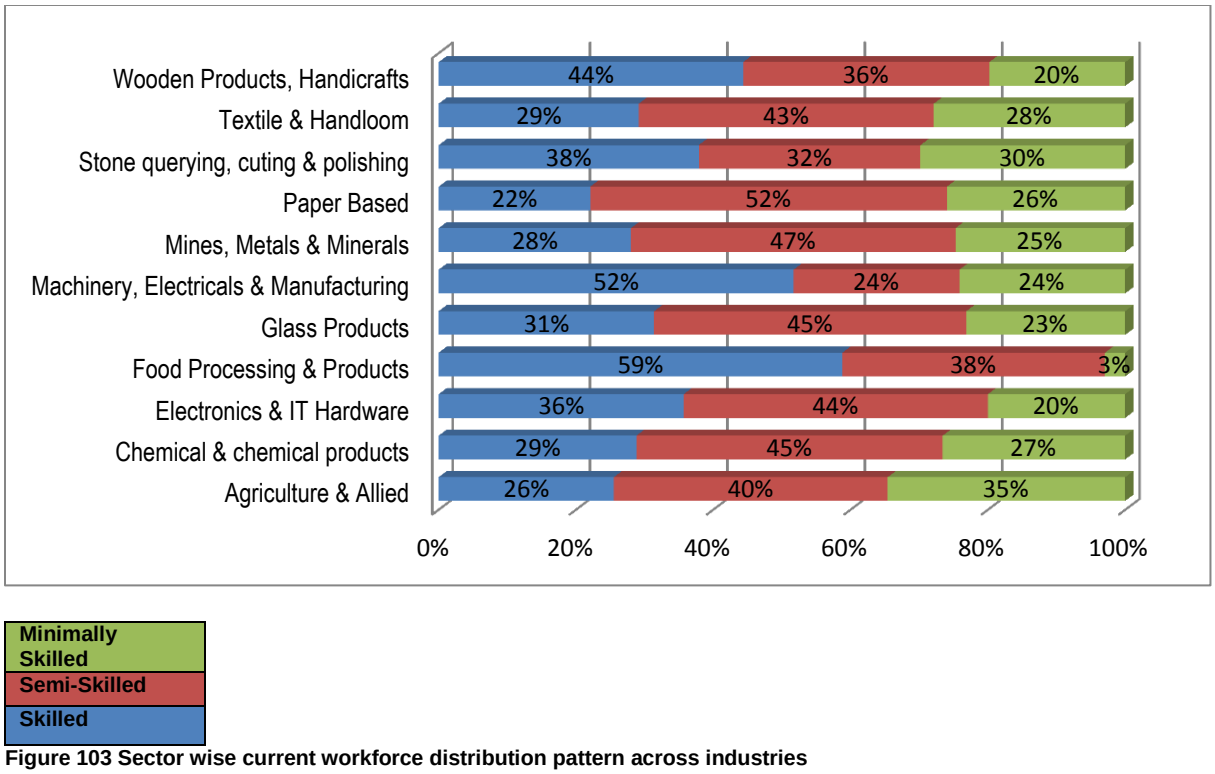


Figure 103 Sector wise current workforce distribution pattern across industries

Across the eleven sectors represented in the sample, the proportion of minimally skilled workers is the highest, followed by semi-skilled and then skilled workers. Across all eleven sectors represented in the sample, a relatively large worker strength was observed among the semi-skilled and minimally skilled for the mines, metals & minerals sector.

The sampled employers indicated the highest number of vacancies for minimally skilled workers. There are roughly equal vacancies for skilled and semi-skilled workers. The count for skilled workers is far less than that for minimally skilled and semi-skilled workers. It was observed, through the data on workers at the time industry establishment, that there was a major disparity in the skilled and semi-skilled workforce. It would appear that industries depend on minimally skilled laborers for their day to day operation.

Incremental manpower demand over the years till 2021-22

The table below shows the incremental manpower across various sectors by 2022. The agriculture and allied industries will have the largest manpower requirement over the years. The construction, transportation & logistics, IT/ITES and BFSI will also require skilled manpower to maintain their growth.

	2012-2017			2017-2022		
Industry	**Skilled**	**Semi-Skilled**	**Minimally Skilled**	**Skilled**	**Semi-Skilled**	**Minimally Skilled**
Agriculture & Allied Activities	28597	142987	543350	31818	159088	604534
Mining & Quarrying	-4134	-3297	-4437	-4909	-3857	-5259
Construction	38920	47843	32005	38069	40788	60910

Tourism, Travel & Hospitality	25740	-12898	-12569	-6242	-2809	-1873
Transportation, Logistics, Warehousing & Packaging	3653	1861	620	3290	1676	559
IT & ITES Sector	8390	878	160	8735	914	167
Banking & Financial Services Insurance	14402	1287	15	10334	4650	3100
Real estate	918	1747	-2297	-759	-814	-1215
Other Services	8760	-7507	-6849	-5805	-2620	-1726
Electricity, gas & water supply	4	-12	16	4	2	2
Food processing	121	1	120	121	73	48
Chemicals & Pharmaceuticals*	679	334	345	679	407	272
Rubber and plastic products*	96	54	43	96	58	39
Auto & Auto components*	2057	1295	762	0	0	0
Metals & non metallic products*	3843	2144	1698	3843	2306	1537
Textile & leather	8813	4839	3973	8813	5288	3525
Wood & Paper products	-990	-577	-413	-990	-594	-396
Total	139869	180978	556543	87095	204556	664223

Table 59 Projection of incremental manpower requirements till 2022 across various Industries
*Manufacturing Sectors

4.5.8 Skill Gap Analysis

The skill gap analysis was performed by undertaking a primary research on the employers through the survey instrument. A structured questionnaire designed to map the current and the future skill requirements of the industries identified in the district on the basis of manpower absorption and production in high growth industries. The analysis factored in industry linkages with vocational training institutes, employment exchange and other sources for workforce absorption and retention. It highlights the mismatch between industry skill requirements and the skill pool emerging. The skill gap for the district for 2012-17 & 2017-22 based on projections is represented in the table below.

Workforce Demand & Supply Gap						
	2012-2017			2017-2022		
Sectors	**Skilled**	**Semi-Skilled**	**Unskilled**	**Skilled**	**Semi-Skilled**	**Unskilled**
Demand	139869	180978	556543	87095	204556	664223
Supply	12602	13497	245693	6016	22620	234246
Gap	127268	167481	310850	81079	181937	429977

Table 60 Representation of projected Skilled/ Semi-skilled & Minimally skilled workforce trend 2011-2022

In depth interviews were conducted with senior functionaries of industry who highlighted the need for more investment in the district. Some of the important findings were as follows:-

- Industries were more concerned about factor endowments like water, power, and investments. Since the district has high supply of manpower, so industries believed that skilled manpower will attract more investments to the district, so training capacity needs to be increased.
- Current training provided by the government and private institutes did meet industry requirements. However, capacity needs to be increased. Focus should also be laid on practical training.
- Scope for self-employment and entrepreneurship is high. However, awareness needs to be created for self-employment and entrepreneurship. More low interest loans should be provided by the government to promote entrepreneurship.
- Demand for skilled workforce would be increasing over next three to five years keeping in mind the increasing investment pattern of the state. Major employment is likely in the construction sector.

4.5.9 Youth Aspirations

We conducted a survey of the district's youth across the four categories of employed, self-employed, unemployed, and trainees. A structured questionnaire was designed to capture the aspirations and perceptions of the young. We then conducted interviews with respondents and held group discussions at colleges for the survey.

Out of the students participating in the survey, 85.2 percent were college educated. The remaining 14.8 percent were high school educated.

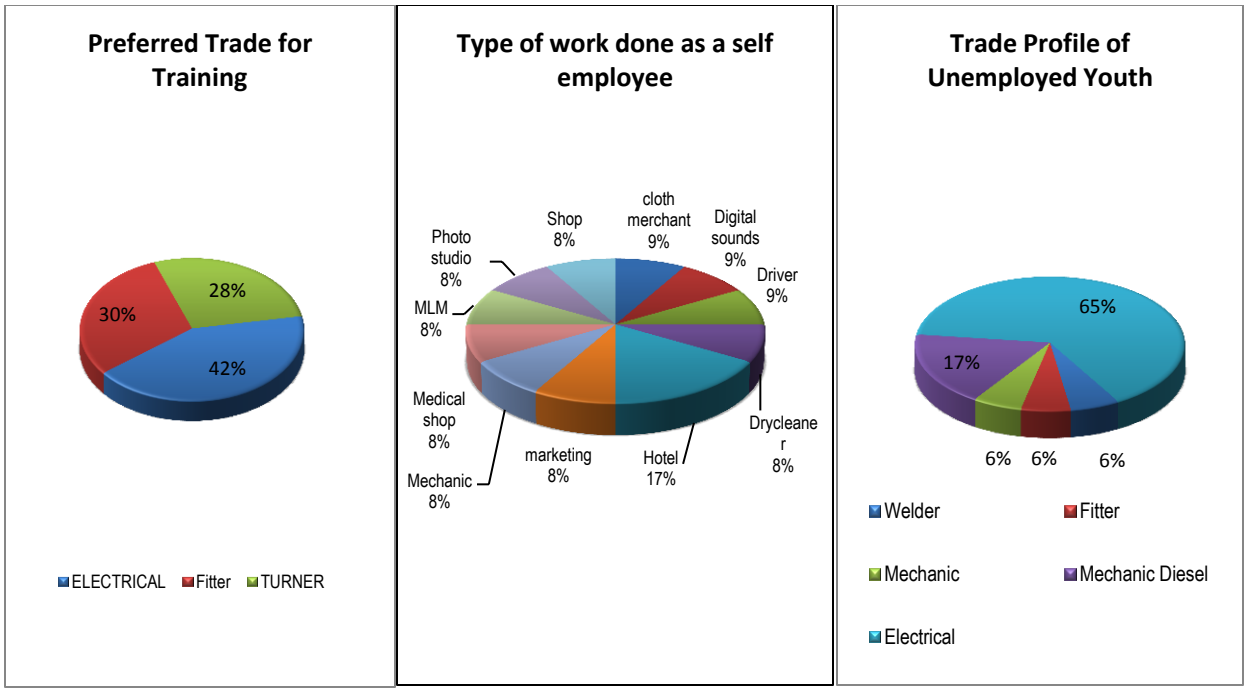


Figure 104 Profile of respondents (trainee, self-employed and unemployed youth) by trade in sample of Mahbubnagar

Out of the trades available, 42 percent chose the course for electricians followed by 30 percent for the one for fitters. Out of those who were self-employed, maximum people selected hospitality-related jobs.

Parameters considered by District's youth while opting for vocational training

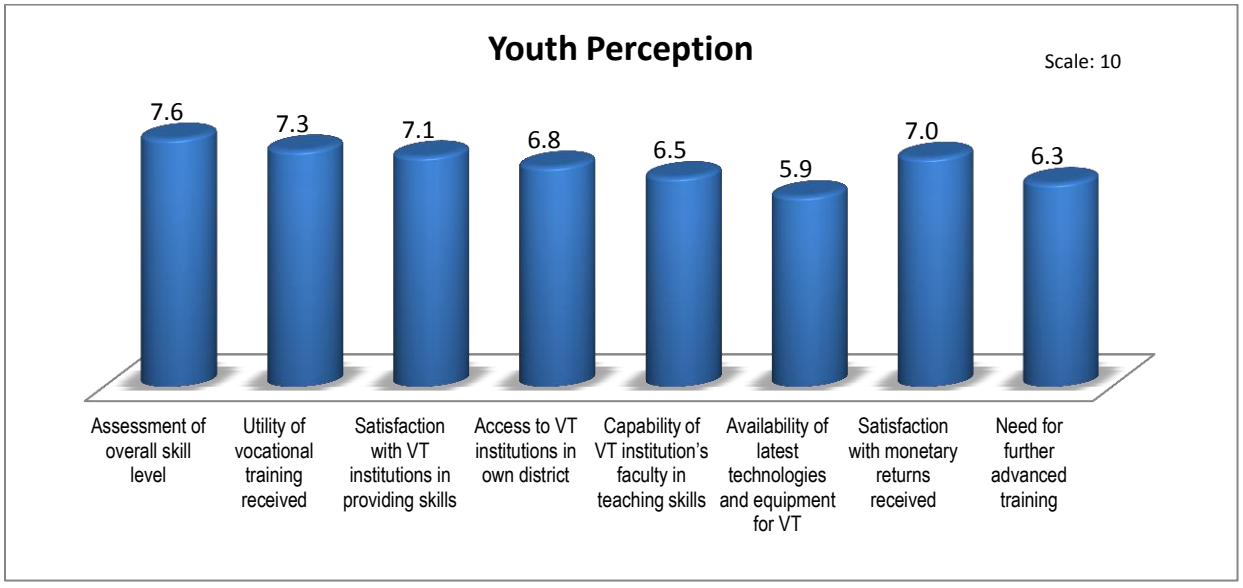


Figure 105 Perception, needs and aspirations of the youth in Mahbubnagar

Assessment of overall skill level received (7.6) emerges as the leading factors identified by the respondents. However, youth rated the current teaching technologies at the VTIs lowest at 5.9 on a scale of 10.

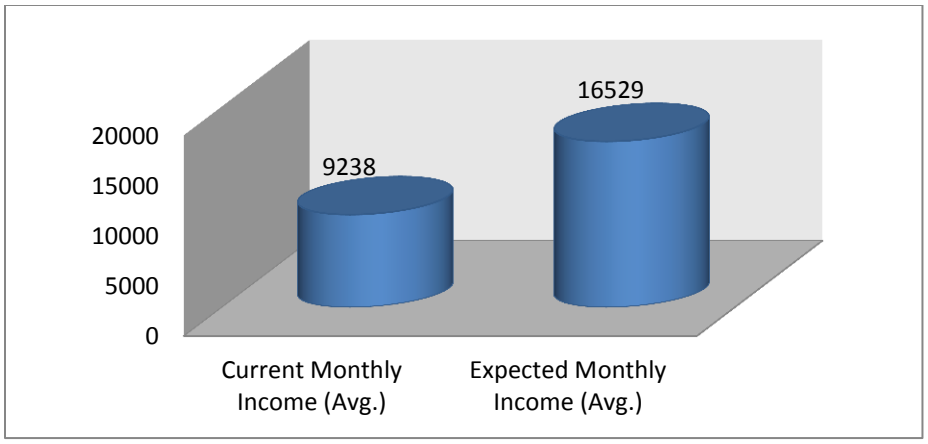


Figure 106 Salary expectation of sampled youth

Salary satisfaction was low across the board. Out of the 60 respondents, 90 percent were not satisfied with their current pay. One average they expected an average rise of INR 7,291 on their current salaries. However, only 50 percent of the youth received any annual increment.

4.5.10 Recommendations: Skill Development Eco System

In its present state, Mahbubnagar district is industrially backward. Though the district is surrounded by two major flowing rivers, national and state highways, and railway lines, besides having abundant minerals, investments are still low. The district will have highest supply of manpower over the coming years. In order to prepare this workforce, additionally capacity must be created. Manpower needs to be trained largely agriculture and livestock sector. Demand for trained manpower in supply chain management is also increasing. With industries growing, trained manpower will largely be required in construction, hospitality, logistics and computer related trades.

Sectors	Growth Opportunities
Textile	• The district is famous for its Kathakota textiles work. It was two clusters of the same. • Andhra Pradesh Infrastructure Industrial Corporation Ltd has proposed a 100 acre Leather garment cluster in the district.
Agriculture & allied industries	• In terms of anticipated employment, agriculture and allied industries will have an incremental requirement of 15 lakh people till 2021-22.
BFSI	• BFSI has contributed 14 percent to the GDDP in 2009-10 under tertiary sector. The sector has witnessed CAGR of approx. 13 percent from 2004-05 till 2009-10. • Currently, not many training partners are training in this sector so the capacity is low.

Table 61 Key demand sectors in the district

The key stakeholders' contribution to achieve the target would be as follows:

State: Mahbubnagar has the lowest literacy rate in the state, making education a top priority. At present, the district lacks the educational infrastructure needed to provide quality education to local youth. This has led to students migrating to other districts.

Action Plan:

a) State needs to upgrade the existing infrastructure and also build more capacity by entering into PPP with national/regional training providers.
b) While encouraging private participation in the vocational training, state also to collaborate for required assessments and certification of students through NCVT or SSC.
c) A robust feedback mechanism needs to be developed to obtain necessary inputs for students and industry to ensure market relevance.

Training Partners: Training providers need focus on building training capacity as well as bridging the existing quality gaps in skilling.

Action Plan:

a) Evaluate & update the course content as per industry requirements with focus on placement opportunities.
b) Strengthen student mobilization through greater community engagement, particularly in rural areas for sectors such as food processing and textiles.
c) Conduct standardized aptitude tests for all students interested in vocational training to facilitate better course matching.

Industries: The district has the highest manpower supply over the years till 2022. Industry needs to formally engage the workforce and provide them relevant career paths.

Action Plan:

a) Need to ensure the training provided is relevant to the industry requirements through greater collaboration with the training providers.
b) Provide inputs to training providers on curriculum, pedagogy and equipment.
c) Help State in creation of competency standards and build a robust performance evaluation mechanism.

NSDC: NSDC needs to focus in building capacity through funding national/regional training providers. NSDC also needs to support funding student fees through schemes such as skill voucher. The focus sectors should be textiles, IT/ITES and manufacturing.

4.6 Chittoor

This chapter highlights the economic base and occupational structure of the district. It identifies the high-impact industries and skill requirements to match the expected growth.

The latter part of the chapter gives the projected workforce demand and supply in the coming years and the optimization plan for the district.

4.6 Chittoor

4.6.1 Chittoor District Demographic Profile

Chittoor district lies on the banks of the Ponnai river. Though far from the capital city of Hyderabad, it is strategically located at the junction of National Highway 18 and National Highway 4 that links Bangalore and Chennai. Located at the southernmost tip of Andhra Pradesh, the district is surrounded by Anantapur and Cuddapah districts to the north, Nellore and Chengai Anna districts of Tamil Nadu to the east, Vellore and Dharmapuri districts of Tamil Nadu to the south and by Kolar district of Karnataka to the west. The district is performing better than others in the state, with a higher human development index (HDI) of 0.558 against the state average of 0.537. The district's urbanization rate is also speeding up; the total urban population was at 29.47 percent in 2011 against 21.65 percent in 2001. However, the district also reports a lower per capita income of INR 28,983 compared to the state's per capita income of INR 37,061 at constant prices 2004-05.

Chittoor District at a Glance				
Population	**Chittoor District**		**Andhra Pradesh**	**Remarks**
	Provisional Census 2011	**Census 2001**	**Provisional Census 2011**	
Total Population	4170468	3745875	84665533	
Total Population – Male	2083505	1889690	42509881	
Total Population – Female	2086963	1856185	42155652	
Population Growth	11.33	14.86	11.10	
Area Sq. Km	15151		275100	
Density of Population (Density/Area sq.Km)	275	247	277	
Proportion of Andhra Pradesh population	4.93%	4.92%		
Decadal growth of population (2001 - 2011)	11.33	14.68	11.10	
Average Literacy	72.36	66.77	67.66	
Male Literacy	81.15	77.62	75.56	
Female Literacy	63.65	55.78	59.74	
Sex ratio (per 1000)	1002	982	992	
Worker population participation rate	-	46.8	45.7	Census 2001
Cultivators to total workers	-	30.14	22.52	Census 2001
Agriculture laborer in workforce	-	35.91	39.64	Census 2001
Household workers	-	3.95	4.71	Census 2001
Other industry and services	-	30.0	33.13	Census 2001

Table 62 Chittoor district at a glance

According to the provisional Census 2011 data, Chittoor accounts

for 4.17 million people, or 4.93 percent, of Andhra Pradesh's 84.7 million people, with a sex ratio of 1,002 females for every 1,000 males. Significantly, Chittoor has the third highest male population among the state's 23 districts. The district has seen a 3.53 percentage points decrease in the decadal growth of population (from 2001 to 2011), indicating that its population is stabilizing.

Chittoor's literacy is also improving. The district's literacy rate in 2011 was 72.36 percent, 4.7 percentage points higher than the state average—and up from 66.77 percent in 2001. Male literacy stands at 81.15 percent, while female literacy is at 63.65 percent—higher than the state average of 59.74 percent.

Chittoor has a huge potential in agriculture, given its fertile land. The district already supplies several export-quality agricultural products, with mangoes being a major export. A major chunk of the workers in the district are engaged in agricultural and allied activities. According to Census 2001, the working population of Chittoor constitutes 46.8 percent of the total population; the non-working population, 53.2 percent. Marginal workers make up 7.8 percent of the total population. Of the total working population, 35.91 percent and 30.14 percent are agricultural workers and cultivators, respectively. Agriculture, thus, is the lifeline of the district.

4.6.2 Economic Profile

The district's Gross district domestic product (GDDP) has grown at the growth rate (CAGR) of 6.46 percent from 2004-05 till 2009-10. In 2009-10, tertiary sector contributed 53.84 percent to the GDDP primarily due to the contribution of trade, hotels and restaurants sector followed by primary sector which contributed 24.47 percent to the district's GDDP.

As shown in the chart below, the primary sector has shown a very slight increase, although secondary sector witnessed growth (CAGR) of 8.90 percent followed by tertiary sector (6.98 percent).

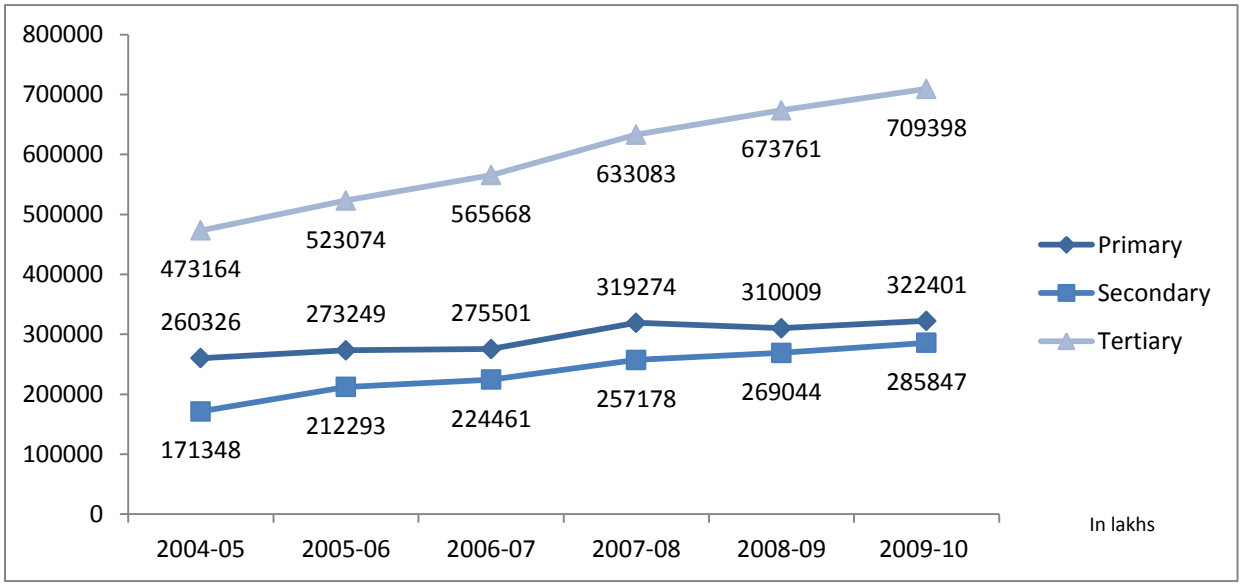


Figure 107 Sector level contribution to the GDDP, Chittoor

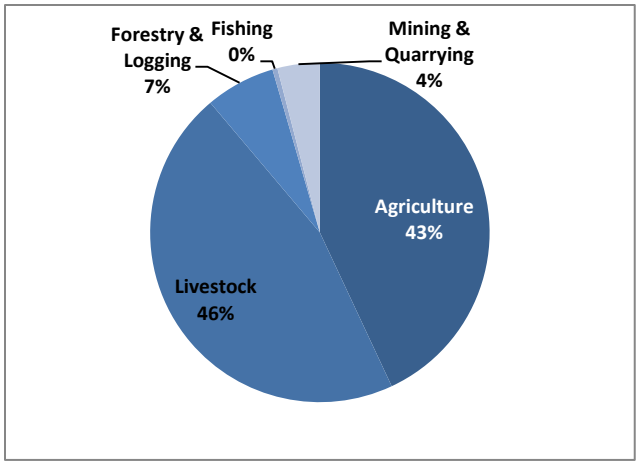


Figure 108 Primary sector contribution to GDDP, 2009-10

Primary Sector

The primary sector (agriculture, forestry &logging, livestock, fishing and mining & quarrying) contributed 24.47 percent to the GDDP in 2009-10. Agriculture sector remained as the highest contributor to the primary sector, contributing approximately 43 percent to the primary sector in 2009-10, followed by livestock (46 percent), forestry and logging (7 percent) and mining and quarrying (4 percent).

The CAGR for primary sector is 3.63 percent from 2004-2005 till 2009-10 with mining and quarrying registering highest growth (31. 22 percent) from 2004-05 till 2009-10.

Secondary Sector

The contribution of the secondary sector to district GDP in 2009-10 was approximately 21.69 percent. The sector has shown a CAGR of 8.90 percent from 2004-05 till 2009-10, primarily due the contribution of construction sector.

The manufacturing sector being dominant in the district has witnessed a CAGR of approx. 14 percent from 2004-05 till 2009-10. The construction sector has also shown an impressive CAGR of approximately 12 percent from 2004-05 till 2009-10.

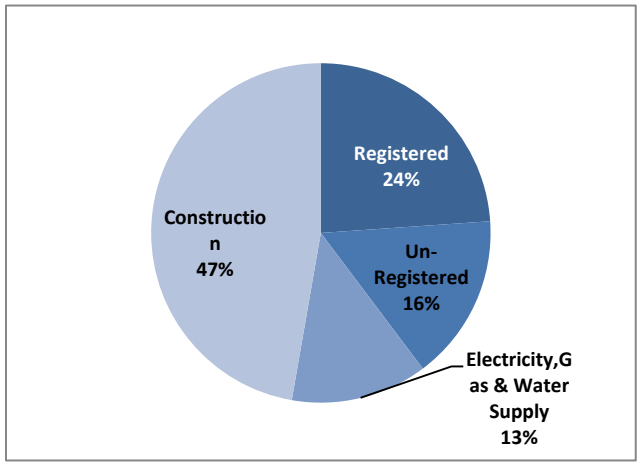


Figure 109 Secondary sector contribution to GDDP, 2009-10

Tertiary Sector

The contribution of the tertiary sector has been significant to the district's economy over the years. In the year 2009-10, the contribution of the tertiary sector was 53.84 percent to the district's GDDP. The sector has witnessed CAGR of 6.98 percent from 2004-05 till 2009-10, primarily due the trade, hotels and restaurants sector.

Two sectors which have shown a high CAGR from 2004-05 till 2009-10 are communications (13.22 percent) and BFSI

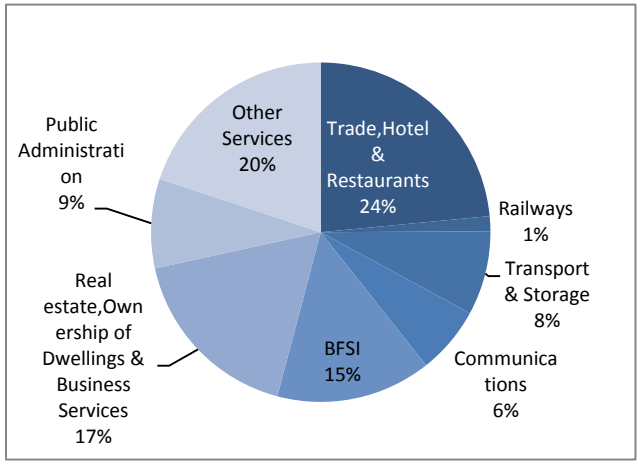


Figure 110 Tertiary sector contribution to GDDP, 2009-10

(13.84 percent). Although, trade hotels and restaurants have contributed highest to the growth of the sector, but it has shown a CAGR of only 6.52 percent from 2004-05 till 2009-10. Real estate and other services grew by 5.41 percent from 2005-05 till 2009-10.

Industry Mapping

Chittoor has a huge potential for development of industries because of its strategic location, proximity to capital cities, easy access to water resources and adequate power supply. The district predominantly houses agro-based industries. Industry in the district accounts for a 3.79 percent contribution to the state gross domestic product (GDP).Chittoor houses several large- and medium-scale industries. Some of them are fruit processing industries, sugar factories, confectionery units, granite cutting and polishing units, chemical industries, electrical and electronic industries, engineering and metallurgical industries and textile industries.

Large- and medium-scale industries

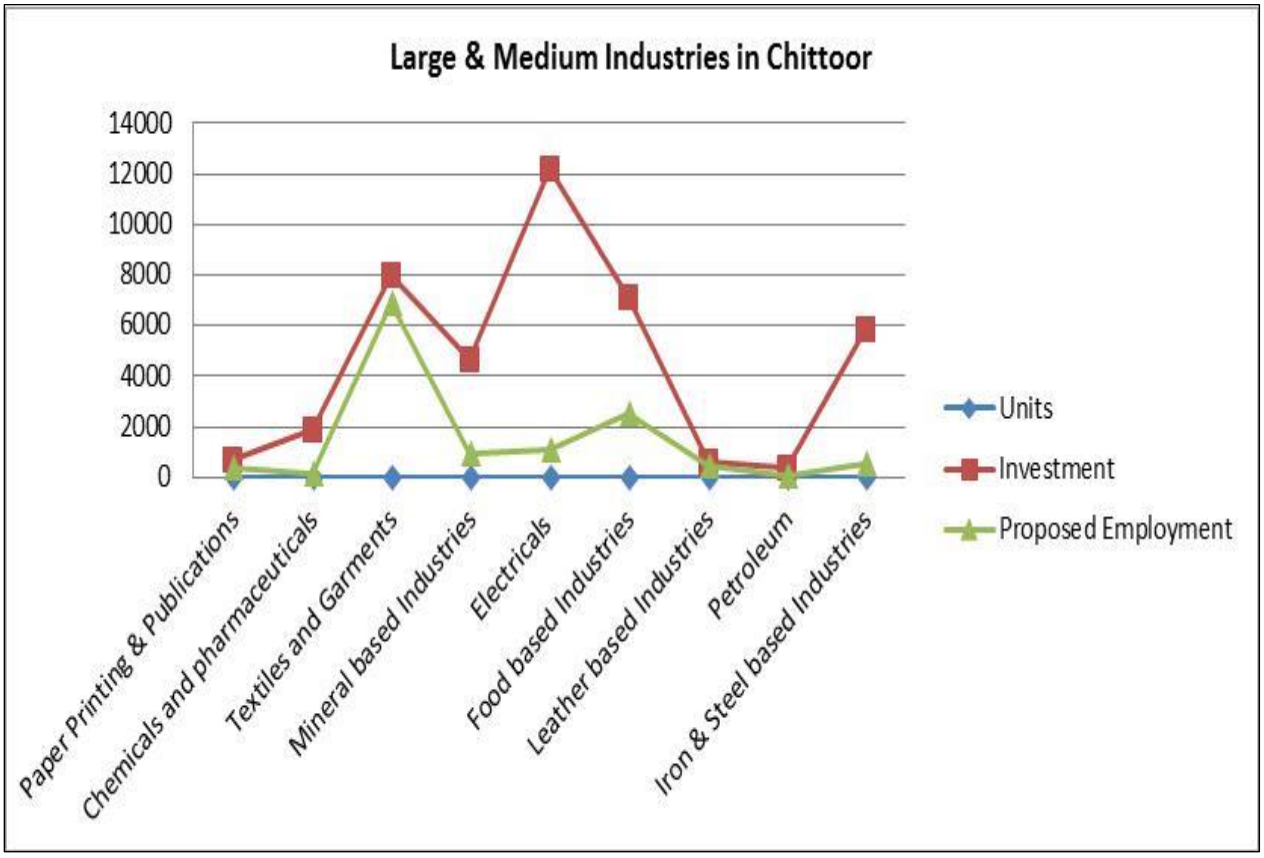


Figure 111 Large and medium-scale industries in Chittoor; Source: District Industries Centre

The district has more than a 100 large- and medium-scale industries including lead acid batteries, ghee milk powder, milk chilling, confectionaries, sugar, ceramics, cotton yarn and biomass, with an investment of INR 9,400 million. Some of the major companies in the district are Ammaraja Batteries Ltd, Aswani Bio-Pharma, Heritage Foods (India) Ltd, Lanco Kalahasti Castings, Sagar Sugar & Allied Products Ltd, Shree Vani Sugars, Stiles India Ltd and Om Shakthi Renergies Ltd. The district has more than 16,500 small scale and tiny industries, with an investment of INR 3049.8 million and providing employment to more than 75,000 people.

4.6.3 Educational Infrastructure and Utilization

Chittoor has the fifth highest literacy rate in the state. The district has an excellent education system with well-established infrastructure—Chittoor is among the districts with the largest number of schools. The next step would be to create more employment opportunities.

Schools	Total Number	No. of Enrollments
Primary School	4,586	2,58,873
Upper Primary Schools	821	99,019
Secondary Schools	943	2,57,597
Higher Secondary Schools	11	6,959

Table 63 Schools with enrolments details Source: Statistical Abstract, Andhra Pradesh - 2011

Chittoor is renowned in the Rayalaseema region for its educational institutions—the district has numerous colleges imparting professional courses. While there has been a steady increase in overall literacy in the district, the increase in the proportion of literate women has been significant. The literacy rates for males and females are at 81.15 percent and 63.65 percent, respectively against 77.62 percent and 55.78 percent in Census 2001.

Census 2001 puts the total number of graduates and those with higher qualification in Chittoor at 1, 36,183. Of this, 65 percent are males and 27 percent females. The district accounts for 4.81 percent of the graduates in Andhra Pradesh.

Education Institutions	Total Number
ITIs	13
Polytechnics	19
Engineering Colleges	37
Medical/ nurses Colleges	3
Pharmacy Colleges	10

Table 64 Education Statistics; Source: Statistical Abstract, Andhra Pradesh - 2011

The district's gross enrolment ratio, or the percentage of enrolment in classes to the estimated child population in different age groups, is higher in classes I–V (90.68 percent), followed by classes VI–VIII (83.20 percent) and classes VIII–X (70.14 percent). The corresponding figures for the state are 100.46 percent, 84.76 percent and 69.51 percent, respectively.

The school dropout rate increases in higher classes. They established an increasing trend over classes I-X of 28.40 percent. But Chittoor's dropout rate is 17.81 percentage points, which is lower than the state average.

Chittoor is the fifth largest technical education hub in the state, with 37 engineering colleges offering a wide range of courses and having an intake capacity of 10,751 students a year. The major courses offered include electronics and telecom engineering, computer science and civil engineering. There are 19 polytechnic colleges—the fifth highest number among all the districts—offering a total number of 4,165 seats per annum. So in terms of educational facilities and access to better courses, the district has made a name for itself.

4.6.4 VTI's demand across various trades in Chittoor district

The government industrial training institute (ITI) at Chittoor offers training in 13 courses. The ITI is well equipped with modern infrastructure. The number of seats has been enhanced from 430 to 605 in all trades, after the ITI was made a Center of Excellence. The institute offers more seats for modular skills. All the trades and units are affiliated to the National Council for Vocational Training.

Table 65 A comparison of courses offered by government and private VTIs in Chittoor

Government VTI Trades		Private VTI
COE (ELECTRICIAN SECTOR)	FITTER	ELECTRONICS
COPA	MACHINIEST	FITTER
DM CIVIL	MECHANIC DIESEL	MECHANIC
DRESS MAKING	MOTOR MECHANIC VEHICAL	TURNER
ELECTRONICS	PAINTER	WELDER
TURNER	WELDER	

.

The government vocational training institutes (VTIs) covered by our study offer training in 12 different trades, while the private VTIs offer courses in five trades. The fitter and electronics are the most popular trades in government VTIs, while in private VTIs it is electronics. The popularity of electronics can be gauged from the fact that private VTIs are offering more than three times the seats offered by government VTIs. It appears that in the government VTIs, the number of actual seats compared to the number of approved number of seats varies across all most all the trades. On the other hand, gap between the actual and approved strengths of trainees is significant for the draughtsman civil, dress making, electronics trades in Government VTIs.

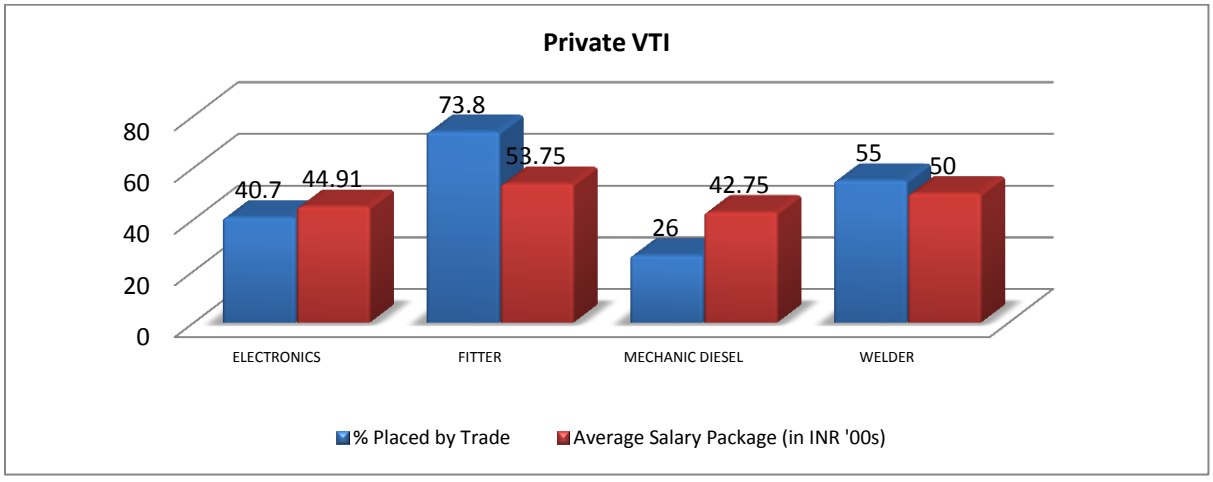


Figure 112 VTIs with placement percentage and average salary across trades

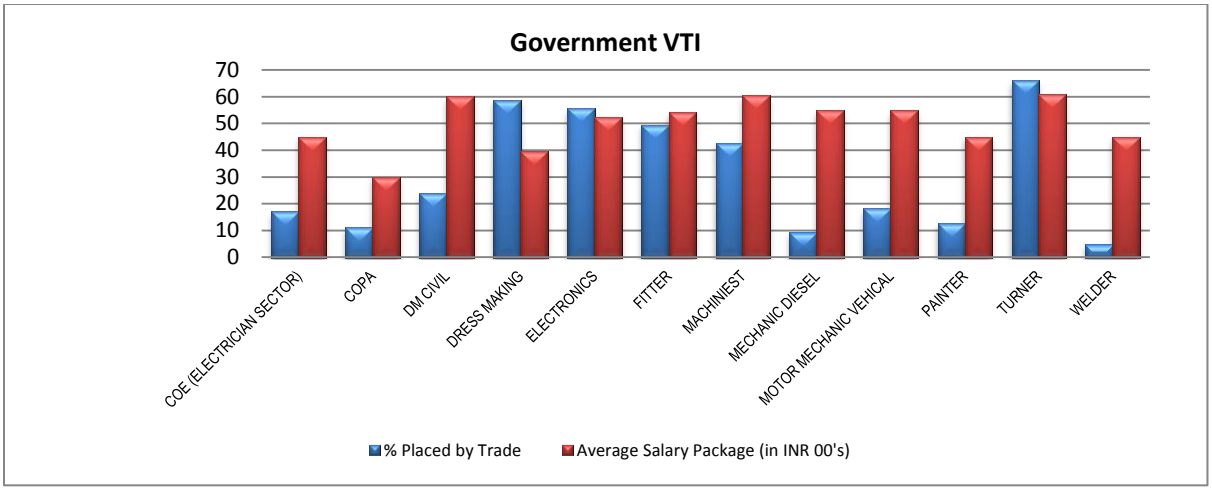


Figure 113 VTIs with placement percentage and average salary across trades

An overview of placement at government VTIs indicates that the number of placements made is almost half of the number of total trained in case of some trades. Private VTIs see better placement in comparison. Government VTI records show that the average salary for trainees who take the draughtsman civil, machinist and turner courses are higher. Trainees from these trades fetch the highest salary (INR 6,000 a month). At private VTIs, those who take the fitter course get the highest paying jobs (INR 5,375 a month). While most of the placements at both government and private VTIs are through campus interviews, a good number of students also manage to get jobs through their own efforts. Employment exchanges have hardly any role in placements at government VTIs.

There has been an increasing demand for electrician, draughtsman civil, dress making, fitter, machinist, turner and welder courses at government VTIs. Private VTIs have also increased their intake of trainees in electronics, fitter and mechanic diesel.

Government VTI	**Positions**	**Approved**	**Actual**
	Managerial	30	22
	Academic	119	89
	Support	49	34
Private VTI	**Positions**	**Approved**	**Actual**
	Managerial	12	12
	Academic	61	59
	Support	18	18

Table 66 Approved & Actual staff in VTIs

Government VTIs appear to be understaffed in terms of faculty and managerial manpower. Private VTIs face a shortage in faculty members but the overall manpower shortfall is not so large as to hamper their smooth functioning.

4.6.5 Placement and absorption trends

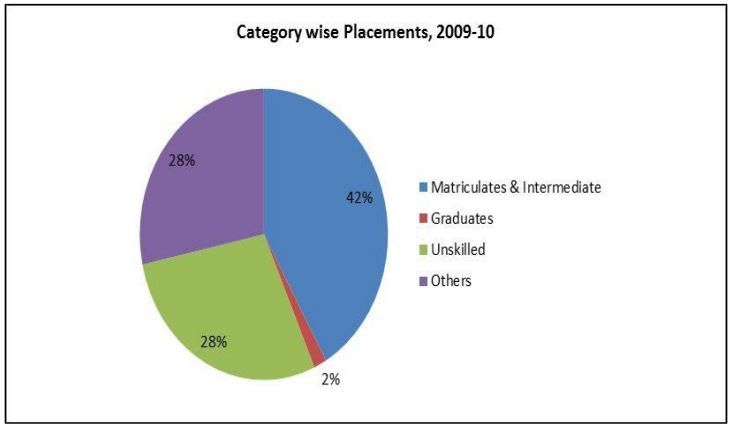


Figure 114 Placements through RYK, Medak; Source: RYK state level placements monitoring report, June 2012

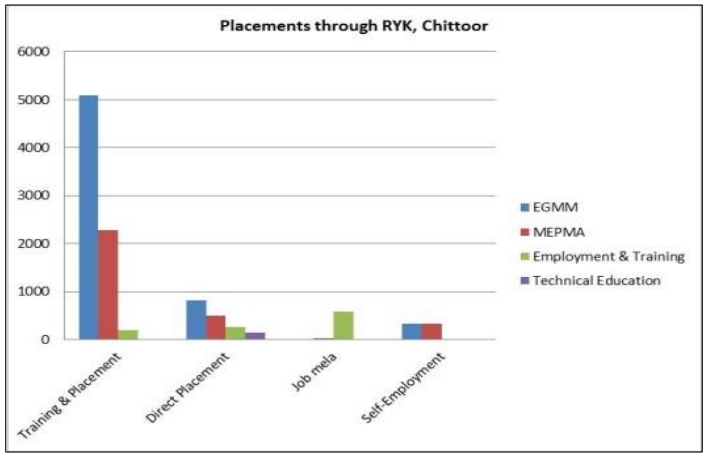


Figure 115 Category-wise placements through employment exchanges Source: Directorate of Economics and Statistics, 2010

While VTIs have established direct links with industry for placement of students, placement of candidates seeking jobs within and outside the district is also done through employment exchanges or the Job Mela organized at the district level as a part of the Rajiv Yuva Kiranalu, a government scheme aimed at providing employment opportunities for the educated youth in the state. Chittoor has three employment exchanges. The number of candidates registered in the exchanges was 94,466 in 2009–10. But very few placements—just about 26—have taken place through the employment exchanges.

The adjacent figure shows the percentages of educated job seekers—categorized according to their levels of education—placed through the employment exchanges. The majority of those placed are of the matriculate and undergraduate level (42 percent). Minimally skilled workers make up 28 percent, others make up another 28 percent. Only 2 percent of those placed are graduates.

The government's Rajiv Yuva Kiranalu scheme is aimed at skilling the unemployed youth, helping them get jobs, and thus promote inclusive growth. As depicted in the diagram, the major proportion of placements is done of through EEGM training and placement offered to the rural youth followed by MPEMA providing employment to the unemployed youth in urban areas.

4.6.6 Sector-wise mapping of industries in Chittoor

Chittoor has taken the lead in setting up food-based industries. It is one of the few districts in which both large- and small-scale industries co-exist. It is one of the largest milk producers in the state and contributes significantly to the state GDP. Some of the prominent sectors from which major workforce demand is expected are the food processing industries, iron and steel industries, and mineral-based.

Industry wise Sector Mapping					
NSDC (High growth sectors)	**Units**	**Employment**	**High**	**Medium**	**Low**
Automobile/Auto Components	44	333			
Food Processing (Food beverages & Tobacco products	386	14721			
Electronics Hardware	25	2751			
Textiles & Garments	56	4026			
Chemicals & pharmaceuticals	22	430			
Healthcare	92	608			
Education/ Skill Development	32	1200			
Banking/ Insurance and finance	316	1204			
Manufacture of Wooden furniture	99	237			
Paper & publication	19	560			
Iron & Steel based industries	11	8328			
Mining & Quarrying	1	30			
Mineral based industries	265	2694			
Service based industries (Repairs & maintenance: R&D)	47	1477			

High	Units>200, emp>1000 - all applicable
Medium	Units>100, emp>500 - all applicable
Low	Units>10,emp>30 - all applicable

Table 67 69Sector wise mapping of industries: Source DIC Report

In order to understand the existing market and industrial trends in the district, we conducted a survey of employers from across 26 industries.

Sectors	No. of Industries Sampled
Agriculture & Allied	3
Auto & Auto Components	1
Chemical & chemical products	4
Construction Material & Building Hardware	1
Food Processing & Products	5
Healthcare	1
Machinery, Electricals & Manufacturing	3
Mines, Metals & Minerals	4
Textile & Handloom	5

Table 68 Sectors covered with number of industries surveyed in the industry

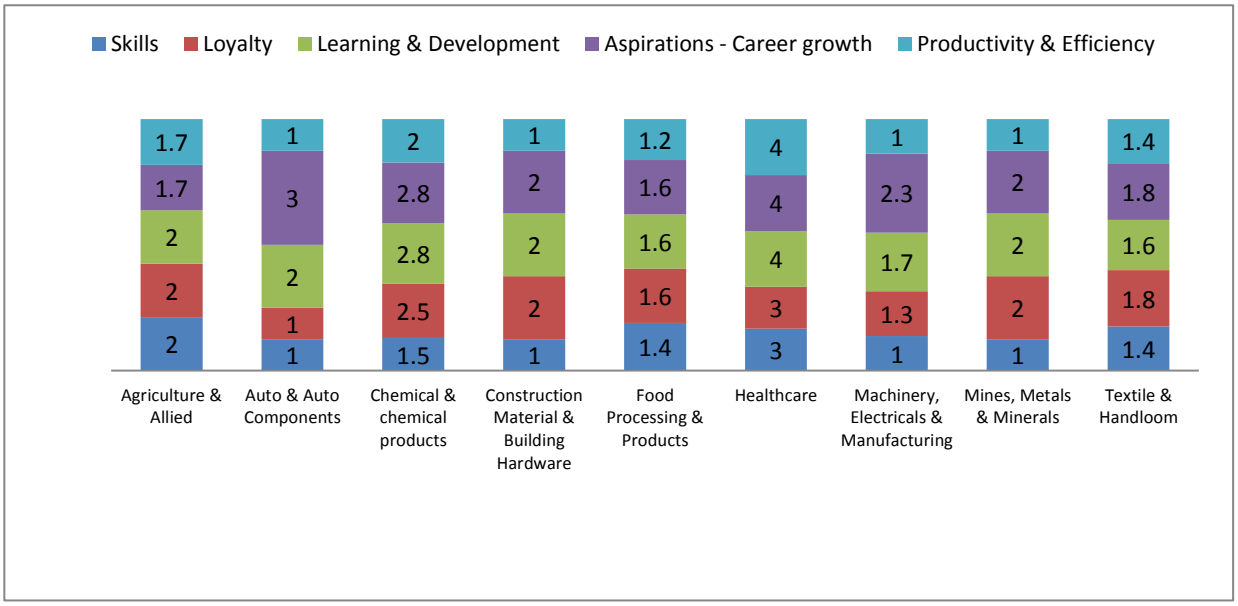


Figure 116 Employers expectations in terms of worker skills

When the employers were asked to rate their expectation from their workers on a scale of 5, employers from the healthcare sector reflected a relatively higher desire for worker characteristics across all the traits offered for ranking, with average ratings between 3.0 and 4. Most of the employers rated their expectations between 1.0 and 3.0, which indicates low level of satisfaction of employers with their employees across all the sectors.

While the primary sector dominates the economy of the district, there is a huge potential for growth of agro-based industries, textiles, and iron and steel industries. Some of the leading players in the district are Ammaraja Batteries ltd, Aswani Bio Pharma, Heritage Foods (India) Ltd, Lanco Kalahasti casting, Om Shakti Reengineers Ltd.The district has seen a substantial workforce demand from wood-based industries and mineral-based industries.

4.6.7 Composition of workforce

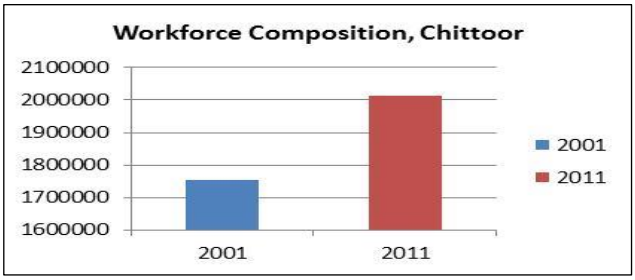


Figure 117 Projected Workforce; Source: Deputy Commissioner of Labour, 2012

The majority of workers in Chittoor are engaged as cultivators. Looking at the resources available and the skill sets of the workforce, agro-based industries are likely to play a key role in the district's economy. However, there has been an increasing engagement of workers in the secondary and tertiary sectors with the industrial growth of the district.

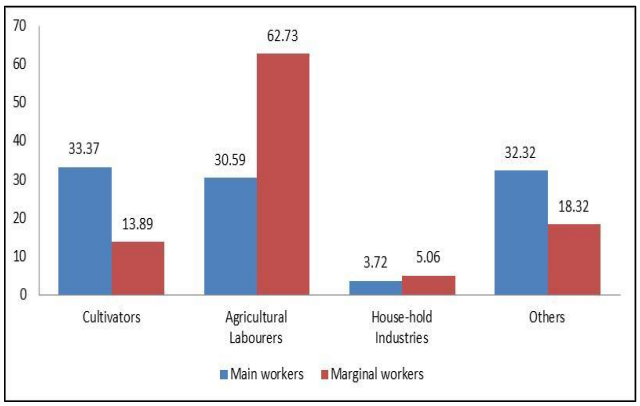


Figure 118 Category wise distribution of main and marginal workers; Source: Census 2001

According to provisional Census 2011 data, the total workforce in Chittoor is expected to rise by 14 percent against the 2001 data. For more than two decades, agricultural laborers and cultivators have been a majority of the workforce in Chittoor district.

The classification of the workforce according to economic activities shows that a large number of marginal workers are in the agricultural sector. While most of the workers are in the primary sector, there has been an increasing engagement of workers in the secondary and tertiary sectors too. Looking at the resources and the skill sets available, agro-based industries are likely to play a key role in future.

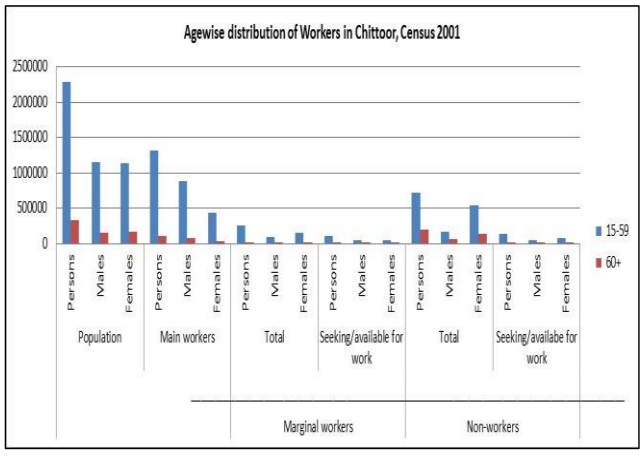


Figure 119 Age wise distribution of workers

A change in the composition and distribution of population in any economically productive activity is closely associated with the demographic structure of the workforce. The workforce participation rate (across size, age and sex) varies according to the stages of economic development. In Chittoor district, a major proportion of the main workers is estimated to be in the age group of 15– 59 years. Interestingly, among non-workers and marginal workers, females in the age group 15–59 years outnumber the males.

4.6.8 Projected Workforce Demand

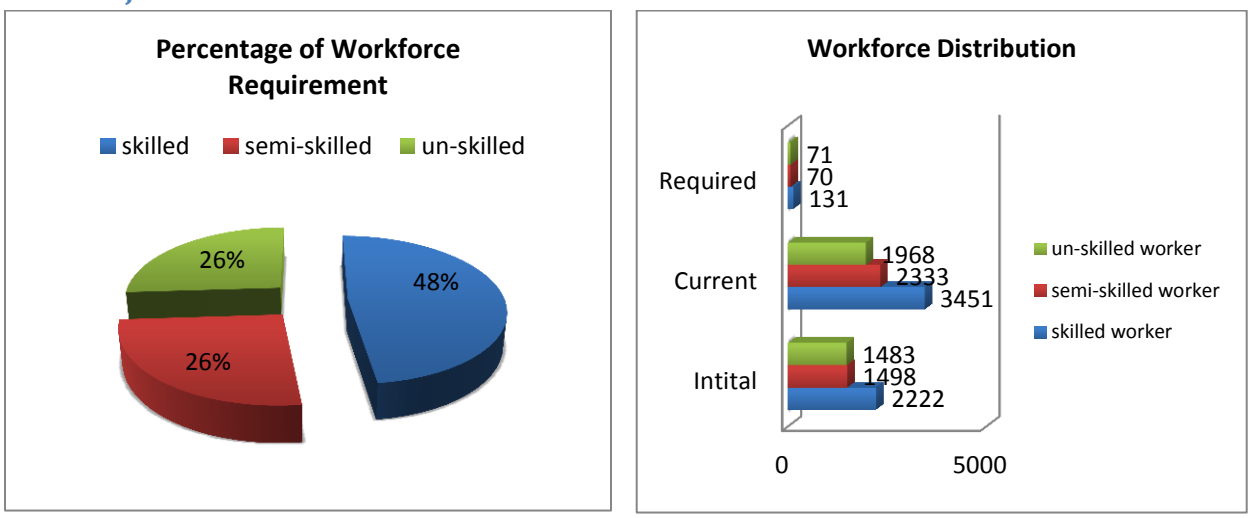


Figure 120 Workforce distributions in sampled industries in terms of skilling as per primary survey

A total of 27 industries were sampled for the survey to represent 9 major sectors in the district. Figure above shows the availability of skilled, semiskilled and minimally skilled workers at the time of establishment of a particular industry, at present and projected requirements. Many sampled industries across the nine sectors reported retention and an increase of their skilled workers strength from the time of establishment till current date. The chemical and chemical products industries, and textiles and handloom show the potential of absorbing more skilled workforce. Except for healthcare, all industries have seen a growth in the number of semiskilled staff. The chemicals and chemical products industries, mines, metals, minerals, and textile and handloom are likely to see more intake of semiskilled workforce in the future. All of the industries surveyed have reported an increase in the strength of their minimally skilled workers and are expected to engage more such workers in the near future.

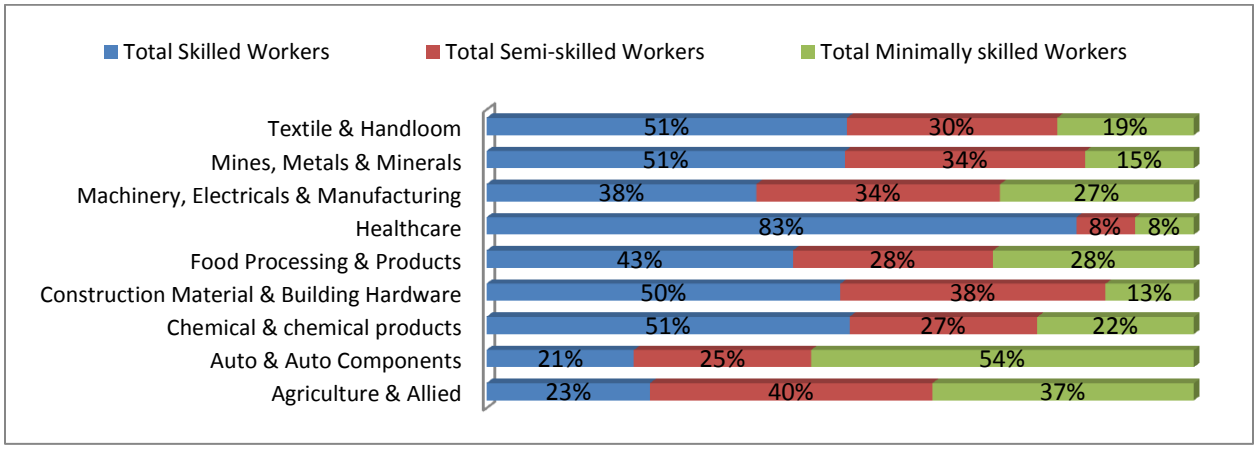


Figure 121 Sector-wise current workforce distribution pattern across industries

Across the nine sectors surveyed, the proportion of skilled workers is more, followed by those of semiskilled workers and minimally skilled workers. Employment of a relatively large number of workers (skilled, semiskilled and minimally skilled) is observed in the food processing and products sector. The auto and auto components sector and cconstruction materials and building hardware industries have low workers strength (skilled, semi-skilled and minimally skilled).

The number of vacancies reported for semi-skilled and minimally skilled workers is more or less in equal proportion but all employers report a high vacancy in the skilled workers category. Vacancy reports from various employers show a strong potential for absorption of workers in all categories—skilled, semi-skilled and minimally skilled. At present, across industries, the number of skilled workers is higher than that of semi-skilled, while the minimally workers' count is the lowest.

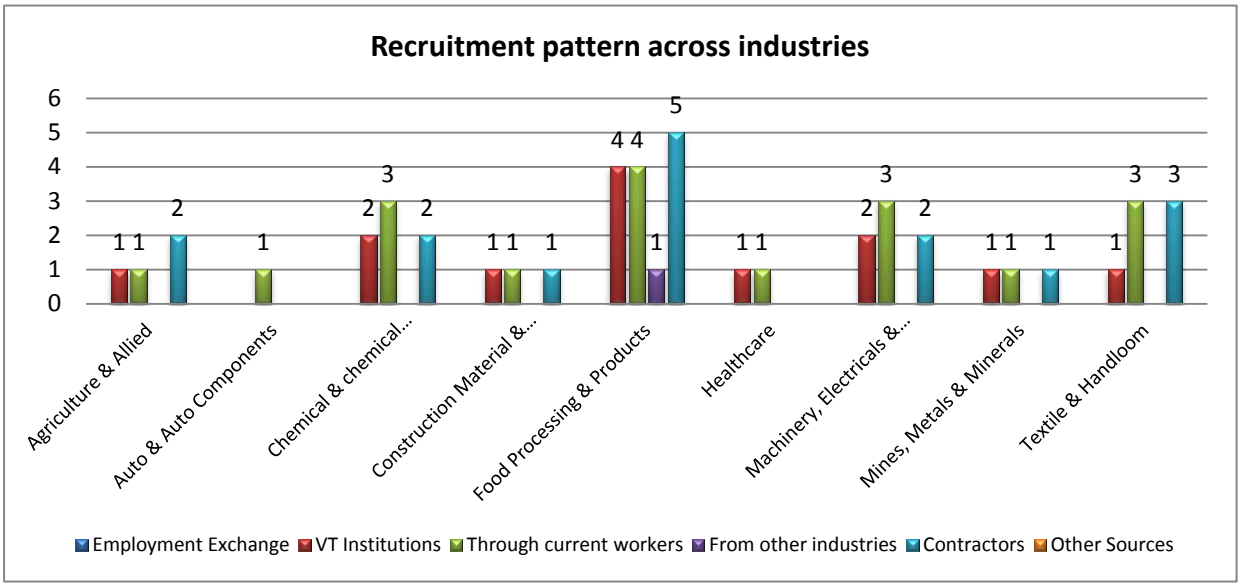


Figure 122 Sources of recruitment of workers

Recruitment of workers from sources such as VTIs, and through employees and contractors appears to be the most common method across all the industries. Recruitment through employment exchanges was not reported by any sector.

Incremental manpower demand over the years till 2021-22

As per the table below, it has been observed that construction sector require large manpower followed by hospitality, BFSI and auto-components. These sectors have seen a high CAGR in the district over the years and thus are expected to employ large manpower. Apart from these sectors, food processing, textile and real estate sector will also witness requirement of skilled workforce in years to come.

	2012-2017			2017-2022		
Industry	**Skilled**	**Semi Skilled**	**Minimally Skilled**	**Skilled**	**Semi Skilled**	**Minimally Skilled**
Agriculture & Allied Activities	-4603	-23016	-87459	-8767	-43833	-166564
Mining & Quarrying	3892	2119	4014	3897	3062	4175
Construction	44733	54033	41494	46795	50137	74871
Tourism, Travel & Hospitality	60208	-8759	-11654	19390	8725	5817

Transportation, Logistics, Warehousing & Packaging	1766	900	300	950	484	161
IT & ITES Sector	14726	1542	281	15527	1626	296
Banking & Financial Services Insurance	22472	2616	528	17194	7737	5158
Real estate	3037	4307	-327	1351	1447	2161
Other Services	18180	-8381	-8309	-2069	-929	-626
Electricity, gas & water supply	1279	731	548	1279	767	512
Food processing	2699	1107	1592	2699	1619	1080
Chemicals & Pharmaceuticals*	609	326	283	609	365	244
Coke, refined petroleum and nuclear fuel*	-111	-71	-40	-111	-67	-45
Rubber and plastic products*	-81	-57	-25	-81	-49	-33
Auto & Auto components*	6046	3324	2722	6046	3628	2419
Metals & non metallic products*	5	-56	61	5	3	2
Textile & leather	3379	1767	1611	3379	2027	1352
Wood & Paper products	-234	-147	-86	-234	-140	-94
Total	178001	32284	-54467	107858	36611	-69113

Table 69 Projected labor percentage of workforce demand requirement till 2022 across sectors
*Manufacturing Sectors

4.6.9 Skill Gap Analysis

The skill gap analysis was performed by undertaking a primary research on the employers through the survey instrument; structured questionnaire designed to map the current and the future skill requirements of the industries identified in Chittoor district on the basis of manpower absorption and production in high growth industries in the district.

The analysis factored in industry linkages with vocational training institutes, employment exchange and with other sources for workforce absorption and retention and brings out the analysis on significant mismatch between industry skill requirements and the skill pool emerging.

Workforce Demand & Supply Gap

	2012-2017			2017-2022		
Sectors	**Skilled**	**Semi-Skilled**	**Unskilled**	**Skilled**	**Semi-Skilled**	**Unskilled**
Demand	178001	32284	-54467	107858	36611	-69113
Supply	15288	11069	138806	6824	18718	129748
Gap	162713	21215	-193273	101034	17893	-198861

Table 70 Representation of projected Skilled/ Semi-skilled & Minimally skilled workforce trend 2011-2022

As per the in-depth interviews conducted with senior functionaries of industry associations, the need to focus more on the quality of the current vocational training was well pronounced. Some of the important findings were as follows:-

- VTP did not cater to the industrial requirements. The courses offered were not as per current demands. The curriculum needs to be updated as per new technological requirements and global standards.
- Due the large upcoming projects in power and electrical, the demand of skilled manpower was expected to be high. Huge requirement is also expected in professions such as plumbing, office assistants, IT enabled services, office managers, facility management etc.
- Scope of self-employment and entrepreneurship in the district is high. More awareness need to be created for training courses provided in entrepreneurship training.

4.6.10 Youth Aspirations

We conducted a survey of the district's youth (employed, self-employed, unemployed and trainees) using structured questionnaires designed to capture their aspirations and perceptions.

The study was undertaken in Chittoor district to understand what the youth think, why they think the way they do and how the society responds to their hopes, aspirations and perceptions. We conducted interviews at colleges for the survey.

In-depth interactions were held with youth respondents. As many as 86.7 percent of the respondents were college educated; the rest had completed high school education. All the respondents were taken from registered VTIs so as to gain insights into the relevance of the skilling initiatives of government and private VTIs.

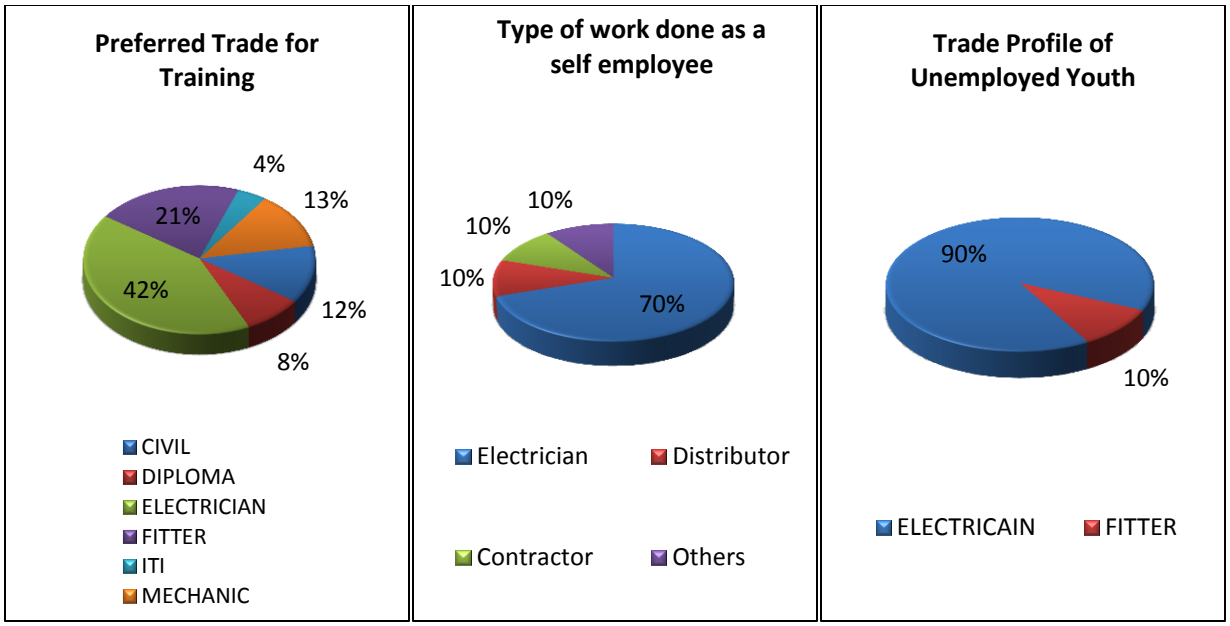


Figure 123 Profile of respondents (trainee, self-employed and unemployed youth) by trade

Based on the perceived demand in the market, electrical course emerged as the most popular among the youth (42 percent), followed by Fitter (21 percent). A majority of self-employed youth were electricians (70 percent). Most of the unemployed youth had been trained as electricians (90 percent) or taken Fitter courses (10 percent).

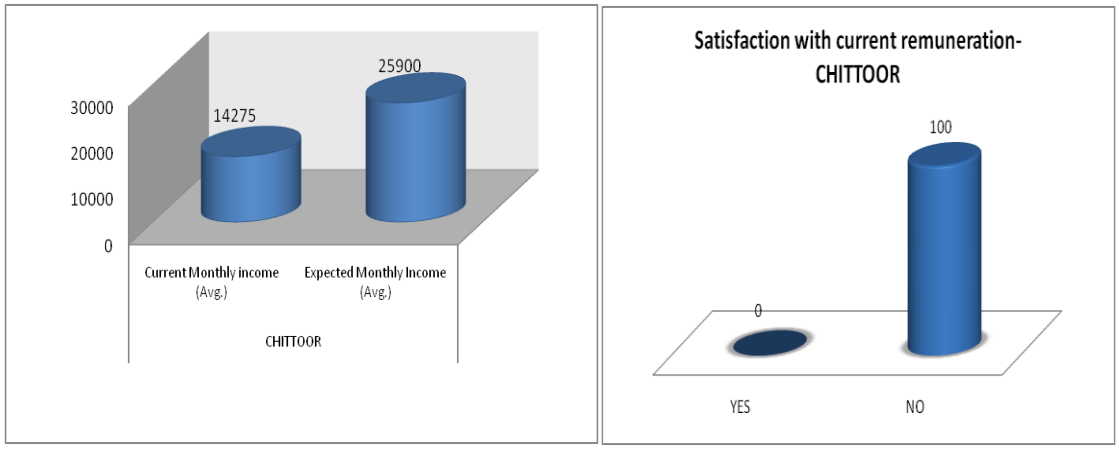


Figure 124 Salary wise youth perception and aspiration

A minimum average hike of Rs.11625 /- is expected across different trades. Almost all the respondent youth (100%) appear to be not satisfied with the current remuneration received.

Parameters considered by District's youth while opting for vocational training

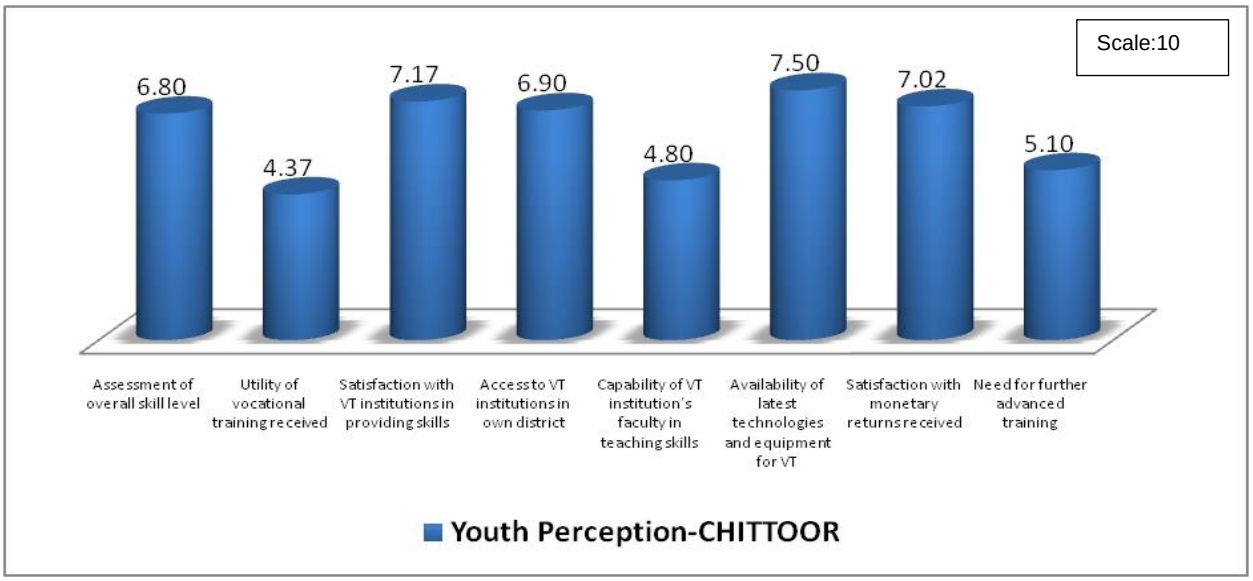


Figure 125 Perception, needs and aspirations of the youth in Chittoor

Respondents reported satisfaction with the availability of latest technology at training institutes. They rated it 7.5 on a scale of one to 10. Satisfaction with the vocational training imparted received the lowest rating of 4.37 on a scale of 10. The general aspirations were mapped by conducting FGDs with the youths from various categories.

4.6.11 Recommendations: Skill Development Eco System

Chittoor is the hub of industrial cluster. In the coming years, skilled manpower will be required in construction, tourism & hospitality, IT&ITES sectors in the district. Training courses in the mechanical trade, course for ancillary industries in automobile sector, food processing and storage, IT sector, sales and marketing, beauty care, and multi skilled technicians will also be in demand.

Table 71 Key demand sectors in the district

Sectors	Growth Opportunities
Construction	• The construction sector contributed highest (47 percent) to the GDDP under secondary sector in 2009-10. • In terms of anticipated employment, the sector will contribute highest to the incremental demand (approx. 3.1 lakh manpower) till 2021-22.
BFSI	• The sector has witnessed CAGR of approx. 13.8 percent from 2004-5 till 2009-10.
Tourism & hospitality	• The tourism and hospitality sector contributed highest (24 percent) to the GDDP under tertiary sector in 2009-10. • In terms of anticipated employment requirement, the sector will require high numbers (approx. 88,000) skilled and semi-skilled manpower till 2021-22 • Currently no focused training courses are being provided in this sector.

Manufacturing units such as food processing, auto components & textile	• Chittoor is a hub of industrial clusters. • The manufacturing sector contributed highest (40 percent) to the GDDP under secondary sector in 2009-10. • The fruit processing, Granite processing and Madanpally bus building clusters are few large clusters in the district. • There is a need for training in technological knowledge and marketing skills.

The key stakeholders' contributions would be as follows:

State: Chittoor has high literacy rates and an excellent educational infrastructure. Owing to the large number of educational institutes the district attracts students from neighboring districts.

Action Plan:

a. The manpower requirement in industrial sector will witness huge growth in coming years. State must focus on developing infrastructure to cater to this upcoming industrial need.
b. State should also encourage female vocational training programmes through various schemes. Currently, the very few training providers offer such courses. Access to vocational training institutes for females should also be improved.

Training Providers:

Action Plan:

a. Ancillary industries are expected to play a huge role in the Chittoor's industrial development. Training providers should partner with ancillary industries for providing relevant on-the-job training.
b. Training providers should also partner with existing educational institutions such as colleges and higher secondary schools to provide required vocational training as a part of the existing curriculum.

Industries:

Action Plan:

a. Construction will face a major skill gap at the semi-skilled level. Companies will need to partner with the training providers to impart customized training in local language to the workers.
b. Chittoor's youth aspirations are high. The industry will need to offer attractive remuneration and well defined career progression in order to attract manpower with desired skills.

***NSDC*:** NSDC should enable the training providers to develop customized training modules as per the requirements of the youth and the industry. NSDC should provide required occupational standards to help build curriculum.

4.7 Guntur

This section highlights the economic base and occupational structure of Guntur. It identifies the high-impact industries and skills needed to match the expected growth.

The latter part of the chapter gives the projected workforce demand and supply in the coming years and the optimization plan for the district.

4.7 Guntur

4.7.1 Guntur District Demographic Profile

Guntur is the third largest district in Andhra Pradesh and an important industrial and commercial center. It is bounded to the north by the Krishna and Nalgonda districts, to the west by Prakasam and Mahbubnagar districts, to the south by Prakasam district again, and to the east by Krishna district and the Bay of Bengal. The district is known for commercial crops like cotton, chilies and tobacco. It is one of the major producers of chilies, cotton and spices in the state. It is also known for its cement industries. By some indicators the district is doing well, with a human development index (HDI) of 0.599, giving it the third highest rank in the state. Also, the district's urban population was 33.89 percent in 2011, giving it the fifth rank in Andhra Pradesh. However, Guntur's per capital income of INR 34,949 lags behind the overall state's per capita income of INR 37,061 as constant prices 2004-05.

Guntur District at a Glance				
Population	**Guntur District**		**Andhra Pradesh**	**Remarks**
	Provisional Census 2011	**Census 2001**	**Provisional Census 2011**	
Total Population	4889230	4465144	84665533	
Total Population - Male	2441128	2550279	42509881	
Total Population - Female	2448102	2214865	42155652	
Population Growth	9.50	8.72	11.10	
Area Sq. Km	11391		275100	
Density of Population (Density/Area sq.Km)	429	392	308	
Proportion of Andhra Pradesh population	5.77%	5.86%		
Decadal growth of population (2001 - 2011)	9.50%	8.72%	11.10%	
Literacy rate	67.99	62.54	67.66	
Male Literacy	75.40	71.24	75.56	
Female Literacy	60.64	53.74	59.74	
Sex ratio (per 1000)	1003	984	992	
Worker population participation rate		49.1	45.7	Census 2001
Cultivators to total workers		17.8	22.52	Census 2001
Agriculture laborer in workforce		49	39.64	Census 2001
Household workers		2.4	4.71	Census 2001
Other industry and services		30.8	33.13	Census 2001

Table 72 Guntur at glance

According to provisional Census 2011 data, Guntur accounts for 4.889 million of Andhra Pradesh's population of 84.66 million. Its sex ratio in 2011 was 1,003 females per 1,000 males compared to the 2001 ratio of 984 females. Significantly, Guntur is the third most populated district in Andhra Pradesh. The total area of the district is 11,391 sq.km and accounts for 5.77 percent of the total area in Andhra Pradesh.

According to Census 2001, the district has a large working population of 49.1 percent of the total population. Out of the total working population, 49 percent were agricultural laborers and just 17.8 percent were cultivators. Other industries and services engage 30.8 percent of the working population. However, it is pertinent to note that the proportion of the female working population in Guntur, which is 4.2 percent, is higher than the state average.

4.7.2 Economic Profile

The district's Gross district domestic product (GDDP) has grown at the growth rate (CAGR) of 7.39 percent from 2004-05 till 2009-10. In 2009-10, tertiary sector contributed 50.28 percent to the GDDP primarily due to the contribution of trade, hotels and restaurants sector followed by primary sector which contributed 31.73 percent to the district's GDDP.

As shown in the chart below, all the three sectors have shown a remarkable growth rate (CAGR) over the years.

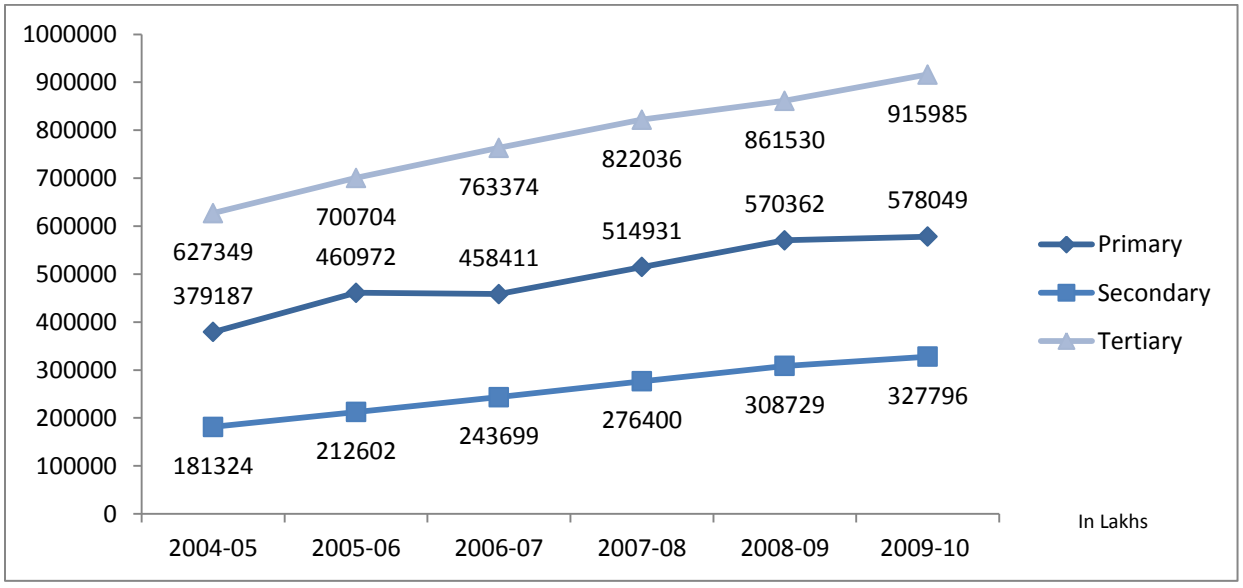


Figure 126 Sector level contribution to the GDDP, Guntur

Primary Sector

The primary sector (agriculture, forestry &logging, livestock, fishing and mining & quarrying) contributed 31.73 percent to the GDDP in 2009-10. Agriculture sector remained as the highest contributor to the primary sector, contributing 64 percent to the primary sector in 2009-10, followed by livestock (22 percent), fishing (9 percent), forestry and logging (3 percent), and mining and quarrying (2 percent).

The CAGR for primary sector is 7.28 percent from 2004-2005 till 2009-10 with fishing registering highest growth rate (10. 72 percent) from 2004-05 till 2009-10.

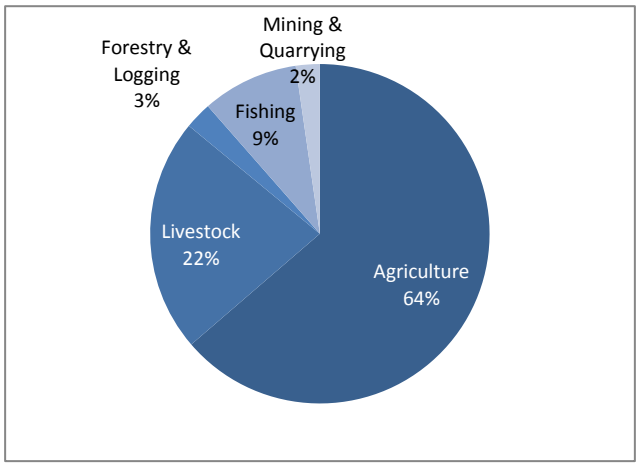


Figure 127 Primary sector contribution to GDDP, 2009-10

Secondary Sector

The contribution of the secondary sector to district GDP in 2009-10 was approximately 18 percent. The sector has shown a CAGR of 10.37 percent from 2004-05 till 2009-10, primarily due the contribution of construction sector. Growth of manufacturing sector has been impressive in the district. The construction sector has shown an impressive CAGR of approx.12 percent from 2004-05 till 2009-10.

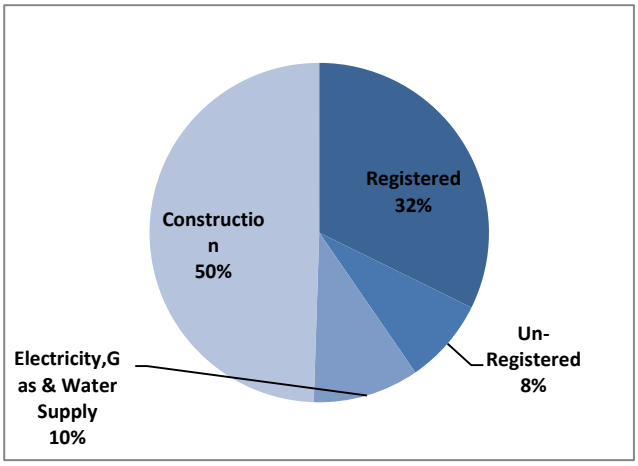


Figure 128 Secondary sector contribution to GDDP, 2009-10

Tertiary Sector

The contribution of the tertiary sector has been significant to the district's economy over the years. In the year 2009-10, the contribution of the tertiary sector was 50.28 percent to the district's GDDP. The sector has shown the highest CAGR among the three sectors of 6.51 percent from 2004-05 till 2009-10, primarily due the trade, hotels and restaurants sector.

Two sectors which have shown a high CAGR from 2004-05 till 2009-10 are communications (12.78 percent) and BFSI (14.10 percent).

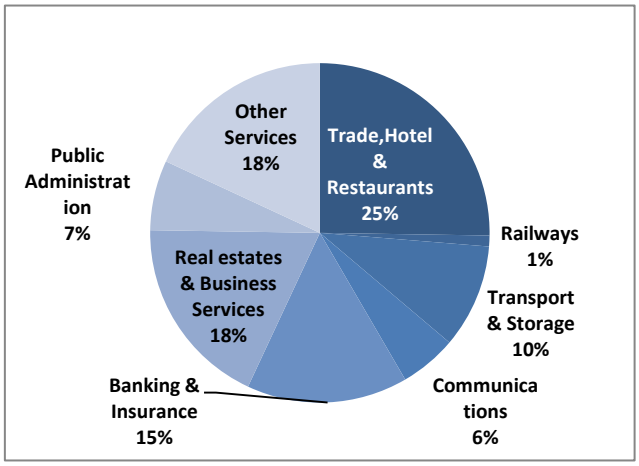


Figure 129 Tertiary sector contribution to GDDP, 2009-10

Although, trade hotels and restaurants have contributed highest to the growth of the sector, but it has shown a CAGR of only 6.31 percent from 2004-05 till 2009-10. Real estate and other services grew by 6 percent from 2005-05 till 2009-10.

Industry Mapping

Guntur district is a major producer of chilies, cotton and spices. Industry in this district has contributed a considerable 5.24 percent to the state GDP at constant prices from 2004-05 to 2009-10.Guntur excels in industrial and commercial development. There is a plethora of industries that have thrived here for a long time. The district is a major producer of chilies, cotton, and spices. Guntur's cotton is prized for its quality. The other industries in the district include cement, textiles, diamonds, jute, fertilizers, and biotechnology. The handloom industry is also well established and attracts tourists from all over India. Guntur is well connected to the state capital Hyderabad and to the second metro city, Visakhapatnam by both road and rail.

As per the DIC data, the district has 7,390 registered industrial units. Guntur has 51 large-and-medium-scale industries in sectors such as limestone, granite, sand etc., with an investment of INR 6,530 million. Some of the prominent companies include Deccan Cements Ltd, Sri Chakra Cements, and KCP Cements. There are 11 industrial estates in Guntur, along with four auto-nagars and two shopping complexes.

4.7.3 Education Infrastructure and Utilization

Guntur's literacy rate in 2011 was 67.99 percent- making it the eighth highest in the state – up from 62.54 percent in 2001. Male literacy rate stands at 75.40 percent, and female literacy is at 60.64 percent. The district still lacks in adequate number of higher secondary schools. Hence, special focus needs to be drawn upon increasing the number of schools in this district. On the other hand, Guntur possesses an adequate number of colleges for imparting technical and non-technical education.

Schools	Total Number	No. of Enrollments
Primary Schools	3062	223309
Upper Primary Schools	489	73214
Secondary Schools	652	231765
Higher Secondary Schools	7	2609

Table 73 Schools with enrolment details Source: Statistical Abstract, Andhra Pradesh - 2011

According to Census 2001, Guntur has the fifth highest number of graduates and those with higher qualification at 1, 75,832. Of these, 72 percent are males and only 28 percent are females. The district accounts for 6.22 percent of the graduates in Andhra Pradesh.

Not surprisingly, Guntur's inadequate school infrastructure struggles to keep children enrolled. The district's gross enrolment ratio, for classes I-V is 68.03, followed by 61.71 percent for classes VI – VIII and 49.07 percent for classes VIII – X. In contrast, the statewide ratios are 100.46 percent, 84.76 percent, and 69.51 percent respectively. The dropout rates establish an increasing trend over class I-X of 53.07 percent. Besides increasing the number of schools,

Guntur will need to focus on improving the quality of education, providing incentives to the best teachers, and improving facilities for students, particularly girls.

Educational Institutions	Total Number
Polytechnics	20
Engineering Colleges	49
Pharmacy Colleges	25

Table 74 Education Statistics; Source: Statistical Abstract, Andhra Pradesh – 2011

As per the provisional Census 2011, Guntur is the second largest technical education hub in the state, with 49 engineering colleges offering wide range of courses and with an intake capacity of 12969 students per year. The major courses offered include electronics and telecom engineering, computer science and engineering, electrical and electronics engineering, mechanical engineering and instrumentation. There are also 20 polytechnic colleges – highest number among all districts. They offer a total of 4,195 seats per annum.

4.7.4 VTI's demand across various trades in Guntur district

There are 39 vocational training institutes in the district. The overall intake of all the ITIs and ITCs is around 1,960 students per annum. Out of these vocational training institutes, only four are the government ITI and the rest are private. These institutes offer a range of courses including those for electricians, fitter, diesel mechanics, plumbers, instrument mechanics, welders, carpenters, dress makers, radio and television mechanics, turners, and stenographers. New trades are introduced based on emerging industry demand. At present, the courses for fitters, electricians, and motor mechanics are more in demand.

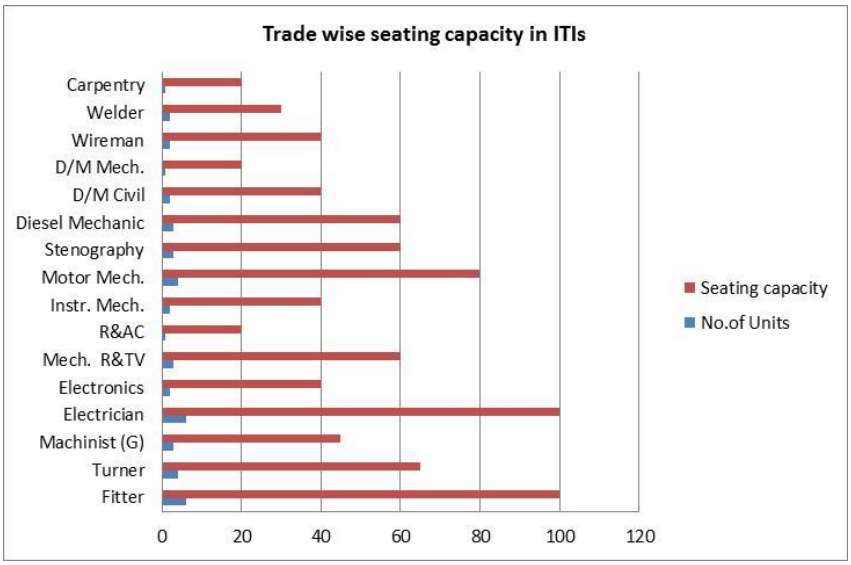


Figure 130 Trade wise seating capacity in ITIs

All the trades are affiliated to National Council of Vocational Training of Director General of Employment and Training.

The vocational training institutes (VTIs) covered by our study include two government VTIs and six private VTIs. The courses which were offered by both the government VTIs and the private VTIs were predominantly engineering-based and catered to local market needs, besides promoting self-employment. However, there were few courses designed to cater to the needs of women. The details of the courses offered are presented in the table below.

Government VTI Trades		Private VTI Trades	
Computer Operator and Programming Assistant	Motor Mechanic	COE	Mechanic Diesel
Mechanic Diesel	Turner	Draughtsman Civil	Motor Mechanic
Draughtsman Civil		Electrical	Welder
Electrical		Electronics	
Fitter		Fitter	

Table 75 Courses offered in government and private VTIs (sample), Guntur

The government VTIs sampled for the study offered training in seven different trades, while the private VTIs offered courses in eight trades. The course for fitter was the most popular in government VTIs, while the electrical trade was most popular in private VTIs. In government VTIs, apart from Mechanic Diesel course all other courses were popular. In case of private VTIs, all the courses fill up their seats except for the one teaching the D/M civil trade. Placements in private VTIs was a concern with only two courses showing marginal placements. Records across all trades in government VTIs indicate below average placements. The situation is much worse for students of the motor mechanics course, where placements were zero. Placements in private VTIs were even poorer. Except for in the electrical and fitter trades, there was no placement at all.

In comparison to private VTIs, governments VTIs were well positioned in market placements. In government VTIs, the highest paying jobs came for those in the electrical trade, with salaries averaging INR 5,000 per month. In private VTIs, the fitter trade got the highest pay, with salaries averaging INR 6,000 per month. The most successful placements came for students in the electrical trade, many of whom proactively approached industry. Guntur's employment exchange does not appear to be playing a significant role in placements.

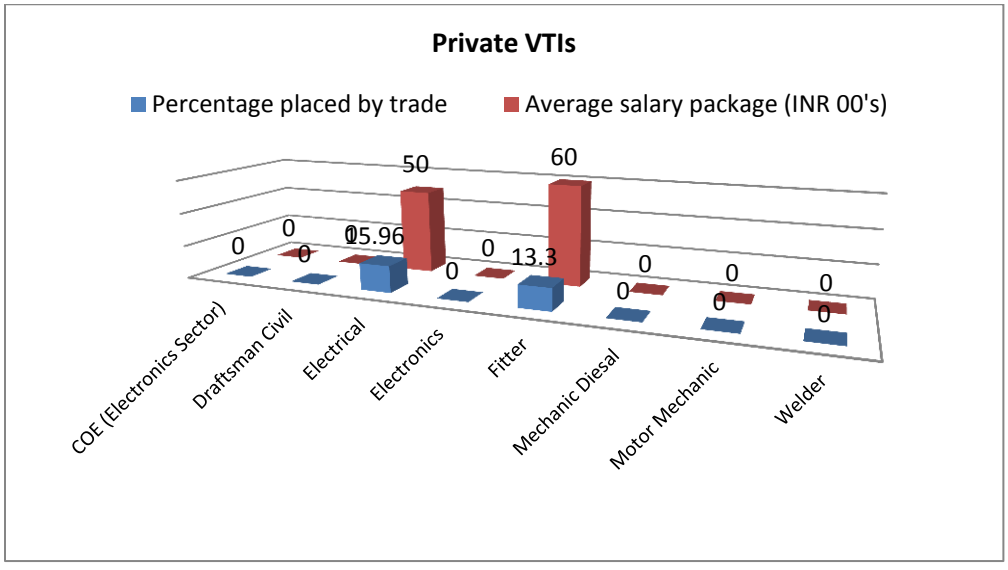


Figure 131 Private VTIs with placement percentage and average salary across

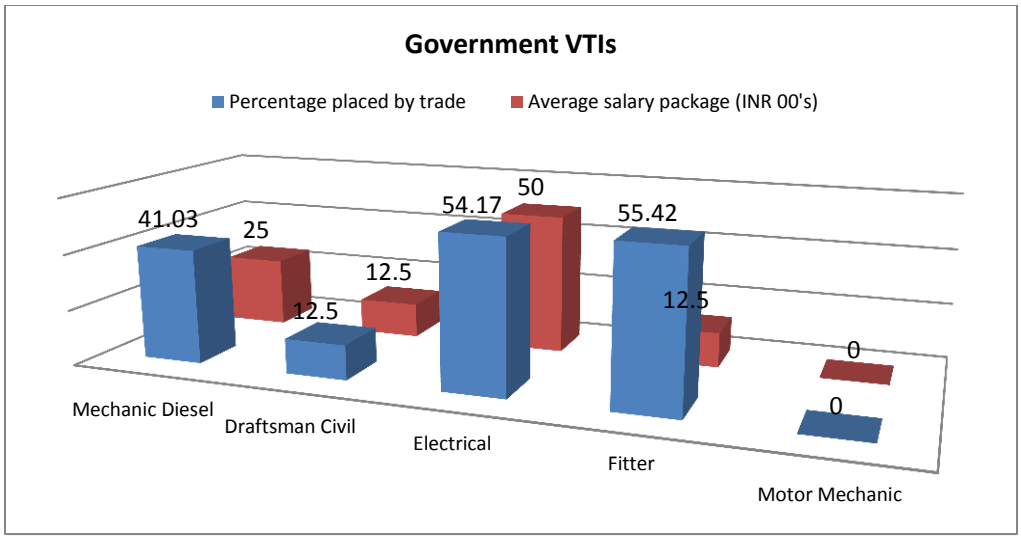


Figure 132 Government VTIs with placement percentage and average salary across

Records across all trades in government VTIs indicate below average placements. The situation is much worse for students of the motor mechanics course, where placements were zero. Placements in private VTIs were even poorer. Except for in the electrical and fitter trades, there was no placement at all.

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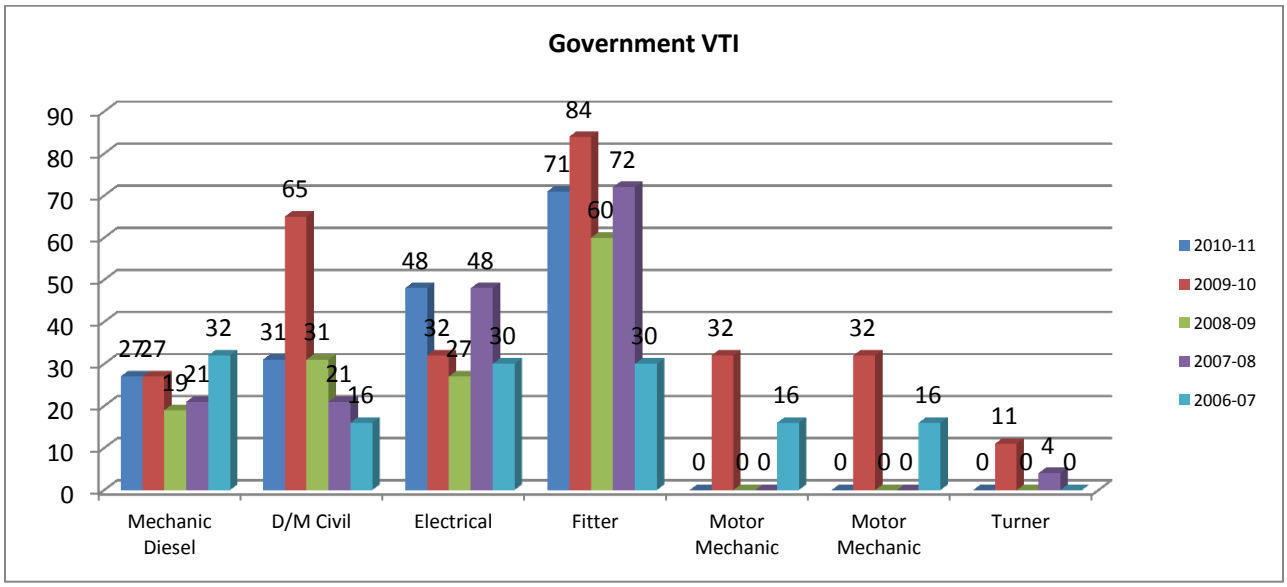


Figure 133 Trends of trained youths across trades over years in Government ITIs

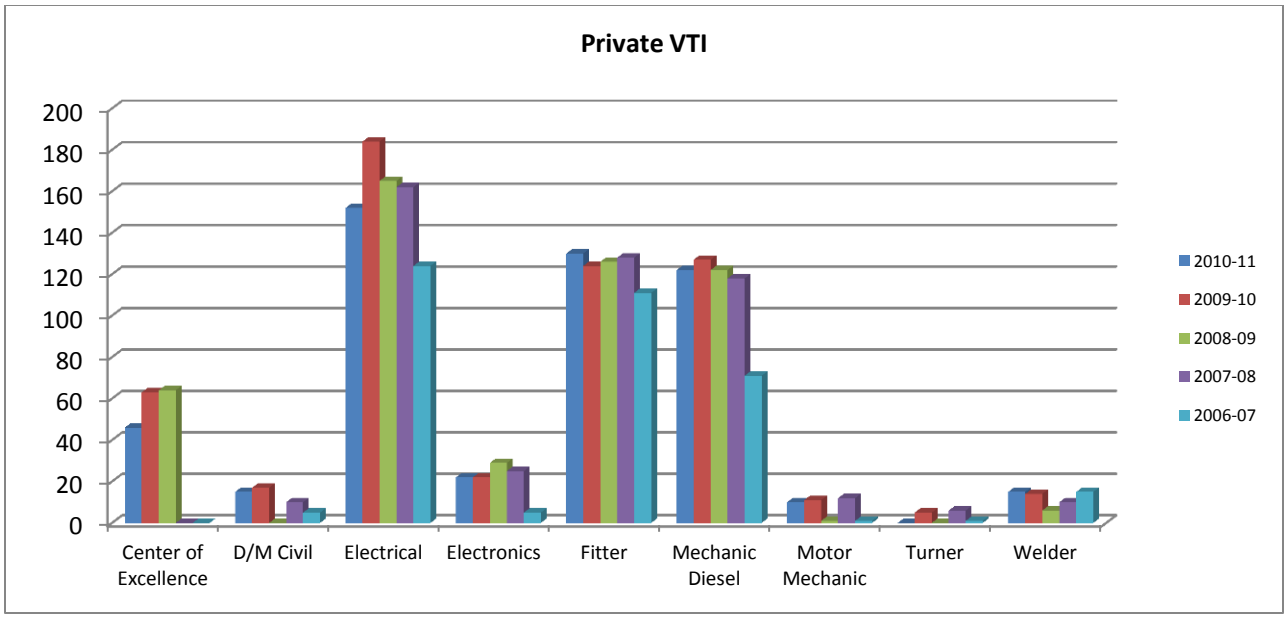


Figure 134 Trends of trained youths across trades over years in Private ITIs

The trends across trades show that there is a decrease in demand by trade over time in Government VTIs. Private VTIs have increased their intake of trainees across all trades except that for turners. While the fitter course seems to be the most popular in government VTIs, the electrical trade is most sought after in Private VTIs. The course for turners has low intake in both private and government VTIs.

Government VTI	Positions	Approved	Actual
	Managerial	15	15
	Academic	42	41
	Support	14	14
Private VTI	**Positions**	**Approved**	**Actual**
	Managerial	24	24
	Academic	60	60
	Support	14	14

Figure 135 Actual & approved staff in Government & Private VTIs

The trends across trades show that there is a decrease in demand by trade over time in Government VTIs. Private VTIs have increased their intake of trainees across all trades except that for turners. While the fitter course seems to be the most popular in government VTIs, the electrical trade is most sought after in Private VTIs. The course for turners has low intake in both private and government VTIs.

Unlike in some other districts, staffing does not seem to be an issue in either government or private VTIs. Records show no significant shortfalls in government VTIs and no shortfalls at all in private ones.

4.7.5 Placement & Absorption Trend

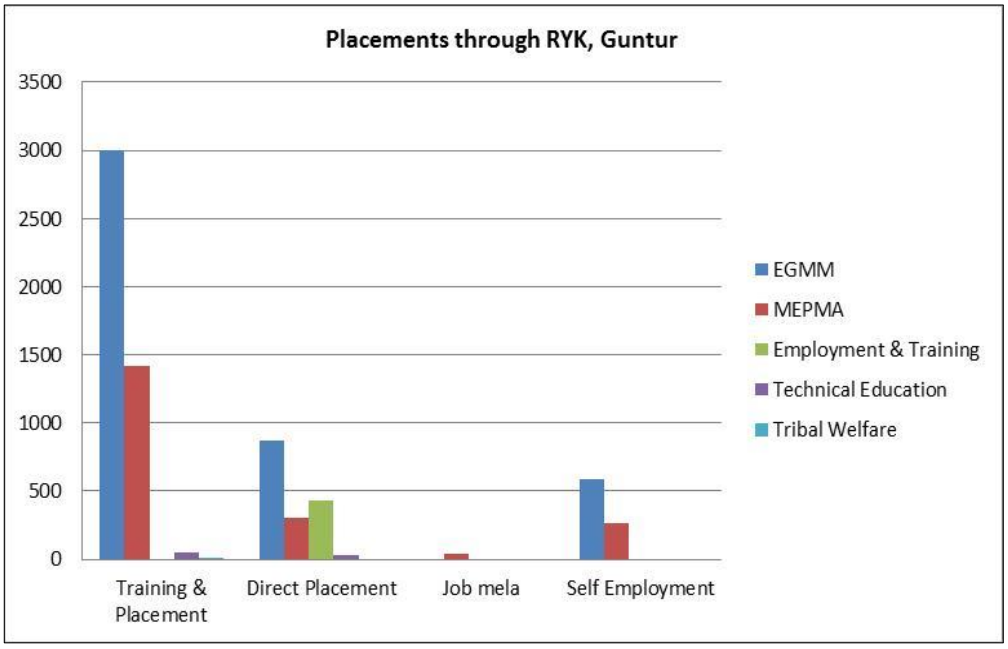


Figure 136 Placements through RYK; Source: RYK state level placements monitoring report, June 2012

Guntur district has just one employment exchange. The number of candidates' names in its live register during 2009-10 was 60,358. Out of the total number registered, only 34 candidates were placed by the employment exchange. It is pertinent to note that the performance of the employment exchange regarding placements and absorption is very poor.

Job seekers can also approach the government's Rajiv Yuva Kiranalu, which helps qualified youth find employment. As the diagram shows, most candidates are absorbed by private institutes with direct industrial linkages or through direct placements by industries. The Job Mela organized at the district level by the Rajiv Yuva Kiranalu, makes very few placements.

4.7.6 Sector wise mapping of industries in Guntur

Guntur has the potential for much greater industrial development. Looking at the trends across various sectors mentioned below, it is pertinent to note that sectors like textiles and food-based industries would be the prime movers of development in Guntur in the near future. These industries would also provide significant employment opportunities for the workforce across skilled, semi-skilled and minimally skilled categories.

Industry wise Sector Mapping					
NSDC (High growth sectors)	**Units**	**Employment**	**High**	**Medium**	**Low**
Agriculture & Allied	507	16220			
Automobile/Auto Components	68	642			
Food Processing (Food beverages & Tobacco products	1617	24746			
Electronics Hardware	44	645			
Textiles & Garments	63	6818			
IT Software					
Chemicals & pharmaceuticals	22	612			
ITES - BPO					
Tourism, hospitality and travel	1240	43408			
Building & Construction					
Transportation/logistics/warehousing and packaging	79	1236			
Healthcare	73	616			
Education/ Skill Development	22	6460			
Banking/ Insurance and finance	441				
Mining & Quarrying	107	1060			
Manufacture of Wooden furniture	139	727			
Paper & publication	37	1520			
Petroleum	2	106			
Mineral based industries	165	3258			
Service based industries (Repairs & maintenance: R&D)	61	1769			

High	Units>200, emp>1000 - all applicable
Medium	Units>100, emp>500 - all applicable
Low	Units>10,emp>30 - all applicable

Table 76 Sector wise mapping of Industries; Source: DIC Data

In order to understand the trend in the existing market and industrial set up, we conducted a survey across 15 industries in Guntur. The sample of employers consisted of senior functionaries from diverse industries located in the district. The survey outlines the important qualities that the district's employers seek in their employees.

Sectors	No. of Industries Sampled
Agriculture & Allied	3
Food Processing & Products	1
Machinery, Electricals & Manufacturing	1
Textile & Handloom	10

Table 77 Sector-wise no. of industries sampled

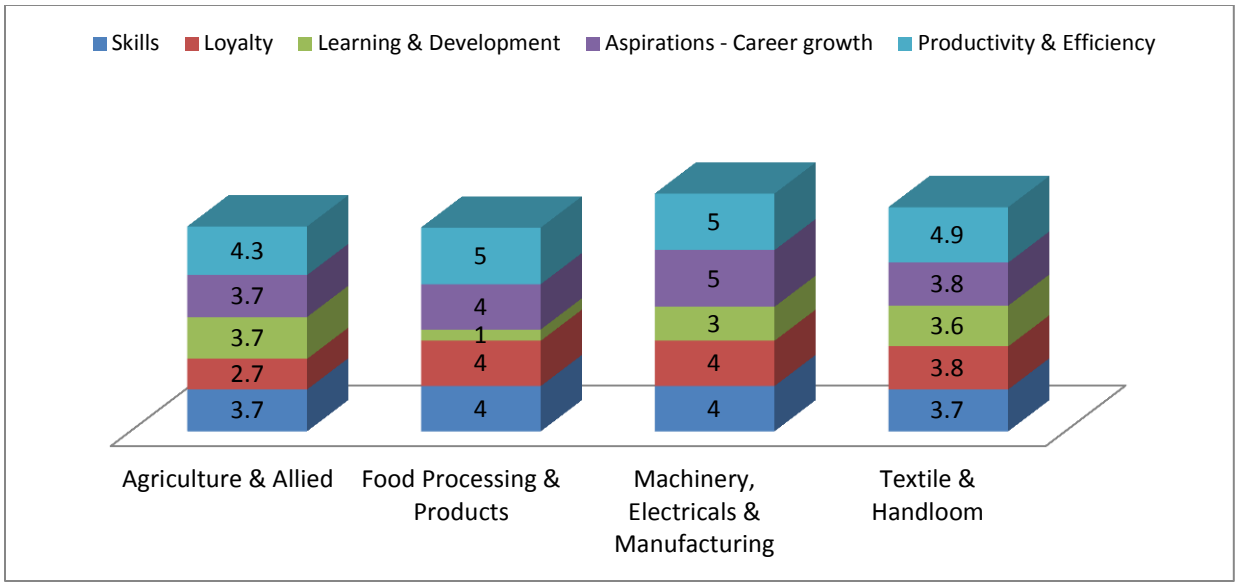


Figure 137 Employers demands in terms of expectations from workers

When employers were asked to rate their expectation from their workers on a scale of one to five, employers from the machinery, electrical & manufacturing sector showed a relatively higher desire for worker characteristics. While the productivity and efficiency parameter received the most numbers. For food processing and products, learning & development was least required. Most employers rated their expectations between 3.4 and 4.8, which indicate a need for high level of expertise from workers.

The above spread of industries clearly indicates there is an increasing prominence of the secondary and tertiary sectors. There is also huge potential for growth of the agro-food industry such as cotton ginning and textile-based spinning and weaving, besides the minerals, granite, and cement sectors. Another upcoming sector is construction and real estate services which is likely to hire huge manpower in near future. Some of the leading players in this district are Vasantha Spinners, Alliance One Industries, and Sri Nukala Rama Koteswara Rao Textiles.

4.7.7 Composition of workforce

Guntur district holds the highest position in the state in terms of total workforce supply and retains the second position when it comes to the workforce population in the age group of 15-59 years. Also, a rising trend is observed in the workforce engaged as agricultural laborers. Looking at the present resources and skill set of the workforce; agro-based industries should play a key role in coming years.

The working population in Guntur is expected to rise by 8.7% against the 2001 data. While observing the trends of the past two decades, it can be seen that agricultural laborers form the largest portion of the working population.

According to Census 2001, the working population of Guntur constitutes 49.1 percent of the total population, while non-workers make up 43.71 percent. Out of the total working population, the main worker population comprises of 41.9% of the total population followed by the marginal workers (7.2%) and non-workers as (50.9%). The major proportion of the main workers in the district is engaged as agricultural laborers (44.57%) followed by other industries (33.22%), cultivators (19.84%) followed and household industries (2.37%) It is observed that most of the main workers are engaged in agriculture or in other industries like tourism, hospitality, and construction. Even among the marginal population, 74.91 percent are agricultural laborers.

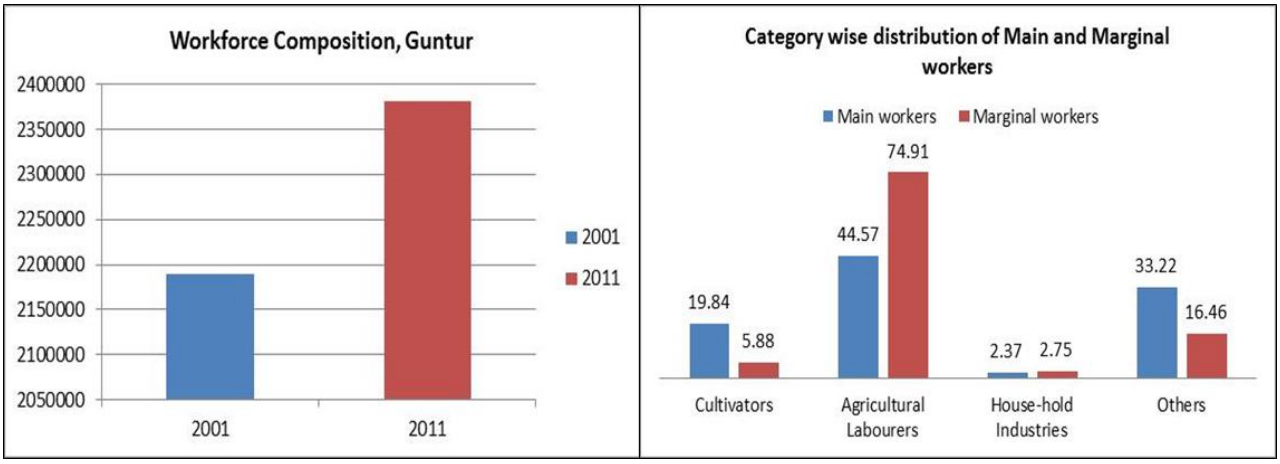


Figure 138 Age wise distribution of workers

In Guntur, a major proportion of main workers are estimated to be in the age group of 15–59. years. Interestingly, among non-workers and marginal workers, females in the age group of 15-59 outnumber males.

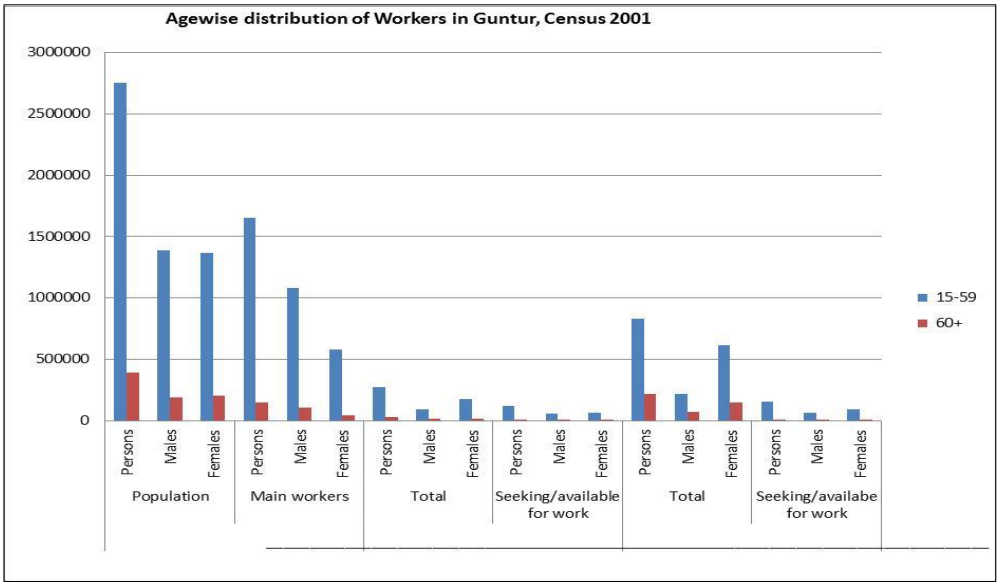
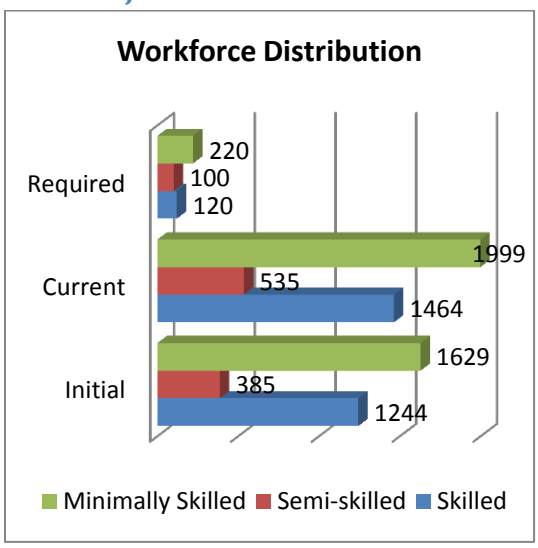


Figure 139 Projected workforce & category wise distribution of workers; Source: DIC & Census 2001

4.7.8 Projected Workforce Demand



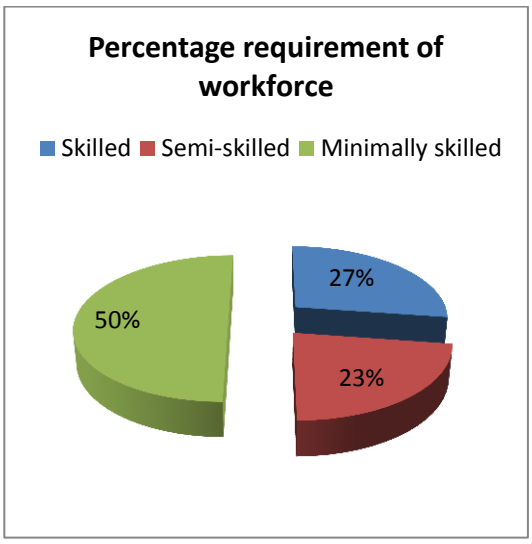


Figure 140 Workforce distributions in sampled industries in terms of skilling as per primary survey

A total of 15 industries were sampled for the survey to represent four major sectors. The tables above show the availability of skilled, semi-skilled, and minimally skilled workers at the time of the establishment of their industries, their present strength, and their required strength. It can be observed that the strength of skilled, semi-skilled and minimally skilled manpower has increased in proportion over the years.

Across all four sectors represented in the sample, a large worker strength of skilled, semi-skilled, and minimally skilled workers was observed in the textile and handloom sector It was observed that in textile and handloom sectors, there was an increase of skilled and semi-skilled worker from the time of establishment of the industries to the current date. The agriculture sector witnessed growth in unskilled workforce but skilled labour seemed to move to other industries.

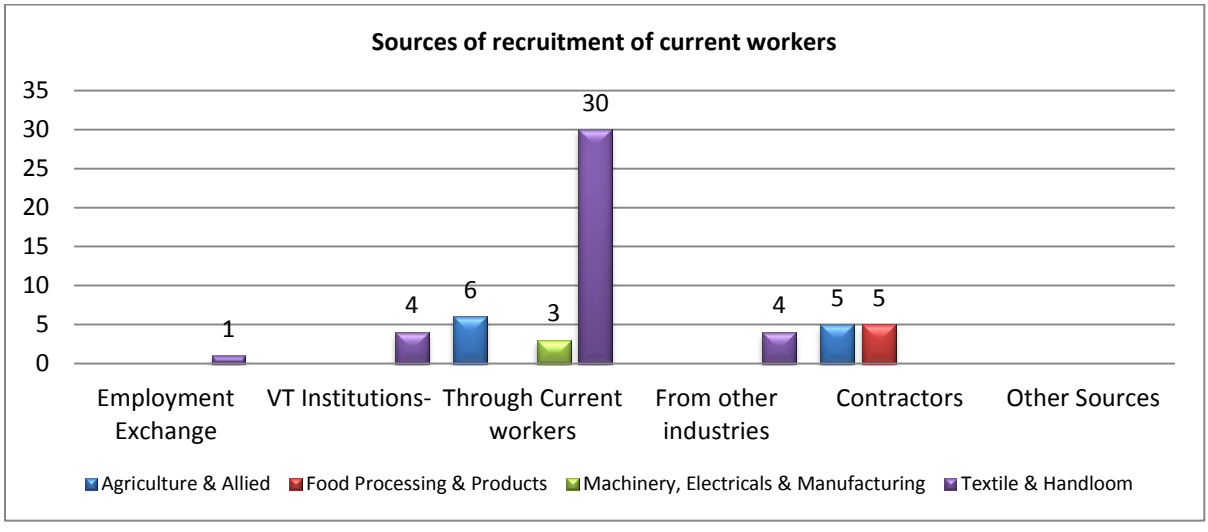


Figure 141 Sources of recruitment of current workers as per sample study

The most preferred method of recruitment still seems to be to via known sources. Other methods of recruitment including the use of the employment exchange, VT institutions, and contractors, were also reported.

Incremental manpower demand over the years till 2021-22

The table below indicates the incremental manpower demand in various sectors in the district till 2021-2022. Few of the sectors such as transportation & logistics, food processing and wood and paper products have been witnessing low growth rate in past few years, due to there is low demand of manpower. Agriculture and allied industries is expected to have high incremental manpower demand till 2022.

	2012-2017			2017-2022		
Industry	**Skilled**	**Semi Skilled**	**Minimally Skilled**	**Skilled**	**Semi Skilled**	**Minimally Skilled**
Agriculture & Allied Activities	13219	66095	251163	10407	52034	197728
Mining & Quarrying	253	-230	199	-17	-14	-19
Construction	49416	60053	44049	50538	54148	80861
Tourism, Travel & Hospitality	60733	-20182	-21161	1546	696	464
Transportation, Logistics, Warehousing & Packaging	-15241	-7764	-2588	-10334	-5265	-1755
IT & ITES Sector	13777	1442	263	14279	1495	273
Banking & Financial Services Insurance	29122	3295	606	22115	9952	6635
Real estate	3777	5438	-813	1464	1569	2343
Other Services	16168	-10450	-9840	-6034	-2726	-1786
Electricity, gas & water supply	254	130	124	254	152	102
Food processing	-1824	-1555	-269	-1824	-1094	-730
Chemicals & Pharmaceuticals*	273	123	149	273	164	109
Coke, refined petroleum and nuclear fuel*	355	203	152	355	213	142
Rubber and plastic products*	-384	-229	-155	-384	-230	-154

Auto & Auto components*	169	88	81	169	101	68
Metals & non metallic products*	811	339	472	811	487	325
Textile & leather	9278	4804	4474	9278	5567	3711
Wood & Paper products	-1219	-745	-474	-1219	-731	-488
Total	178937	100854	266434	91676	116516	287829

Table 78 Projected incremental workforce (demand) requirement till 2022 across all the sectors- Guntur

*Manufacturing Sectors

4.7.9 Skill Gap Analysis

The skill gap analysis was performed by undertaking a primary research on the employers through the survey instrument. A structured questionnaire was designed to map the current and the future skill requirements of the industries identified in the district on the basis of manpower absorption and production in high growth industries in the district. The analysis factored in industry linkages with vocational training institutes, employment exchange and with other sources for workforce absorption and retention and would highlight on the mismatch between industry skill requirements and the skill pool emerging. The situation of skill gap for the district for 2012-17 to 2017-22 based on projections is represented in the table below.

Workforce Demand & Supply Gap						
	2012-2017			2017-2022		
Sectors	**Skilled**	**Semi-Skilled**	**Unskilled**	**Skilled**	**Semi-Skilled**	**Unskilled**
Demand	178937	100854	266434	91676	116516	287829
Supply	17764	13480	197397	8146	22713	185985
Gap	161173	87374	69037	83530	93803	101844

Table 79 Representation of projected Skilled/ Semi-skilled & Minimally Skilled workforce trend 2011-2022

In-depth interviews conducted with senior functionaries of industry associations highlighted the need to improve technologies currently used in production. Some of the important findings were as follows:-

- Current training provided by the government and private institutes doesn't match the skills which are required by the industries. Focus should be more in trades of manufacturing, BFSI, construction etc.
- Industry requires skilled manpower in sectors such as cotton spinning, the coir industry, tobacco and services.
- There is considerable scope for self-employment in the district. However, awareness needs to be created about self-employment and entrepreneurship, if need be through government-sponsored schemes.
- Demand for skilled manpower in trades such as plumbing, electricians, fitters, mechanics, electronics, hospitality etc will increase in the coming years.

4.7.10 Youth Aspirations

The youth survey study was primarily undertaken through the survey instrument. Structured questionnaires were designed to capture the aspirations of Guntur's youth across the four categories of employed, self-employed, unemployed, and trainees.

In-depth interactions were held with respondents across the various categories of youth to provide deep insight and understanding of their aspirations and perceptions. The youth were covered from the categories of employed, self-employed, unemployed and trainees. Out of the respondents, 63.9 percent were college educated and remaining 36.1 percent had completed high school education. All the respondents were from registered private VTIs.

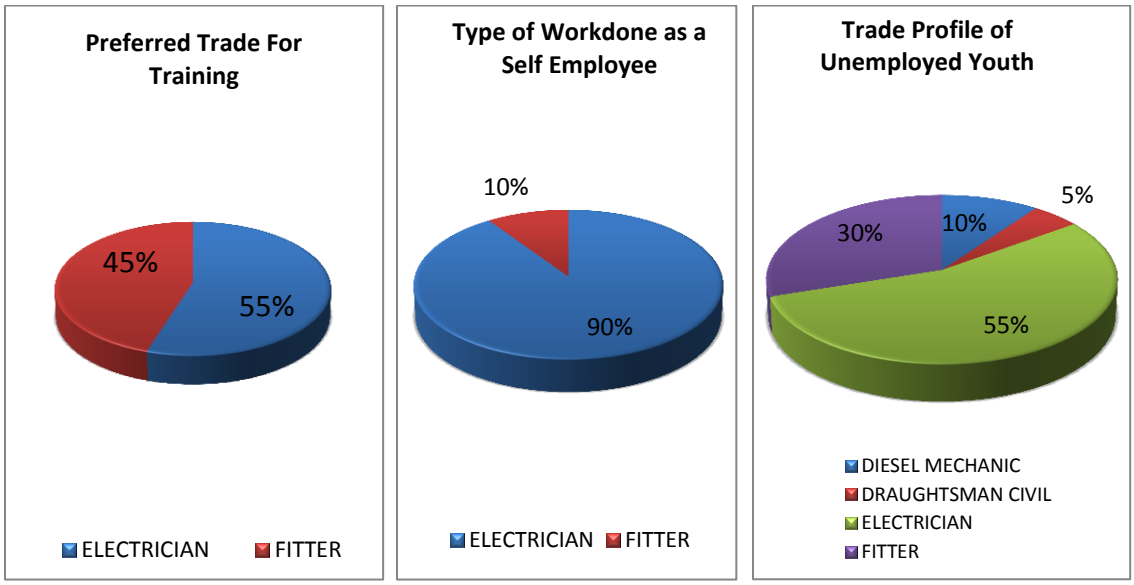


Figure 142 Profile of respondents (trainee, self-employed & unemployed youth) by trade in sample of Guntur

The respondents clearly indicated their most preferred trades. The courses for electricians were the most popular, with 55 percent selecting it. This was followed by the courses for fitters, which the remaining 45 percent chose. Out of those self-employed, an overwhelming 90.5 percent selected the electricians' trade while the remaining selected the fitter trade.

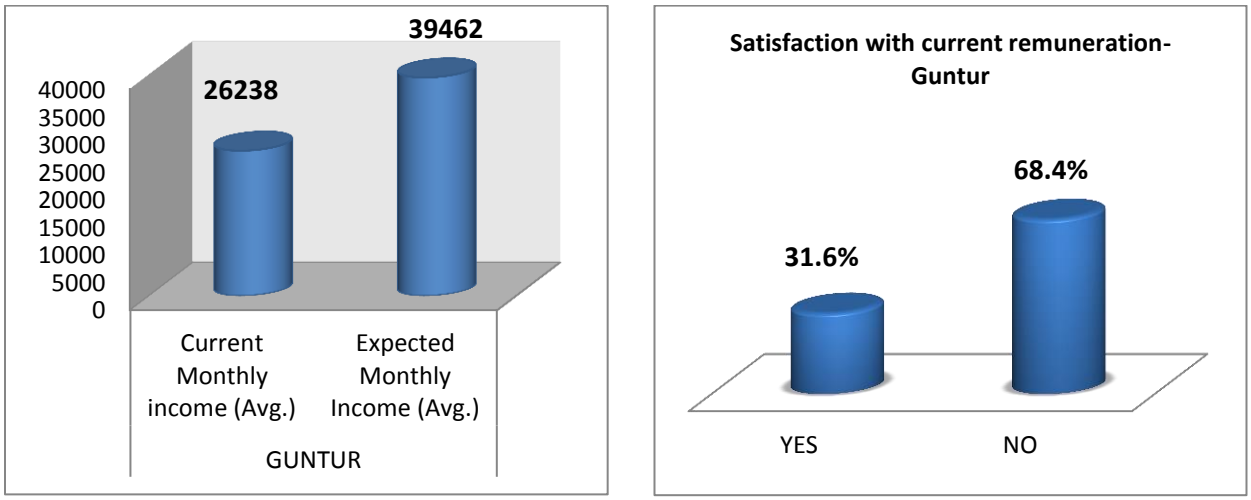


Figure 143 Salary wise expectations of youth

With the sampled youth during the survey, their aspirations regarding the current and future remuneration was asked in which it was found out that A minimum average wage hike of INR13,223 is expected across different trades. While a majority of respondents (68.4 percent) appear to not be satisfied with the current remuneration received, the remaining respondents were satisfied with the present salaries.

Parameters considered by District's youth while opting for vocational training

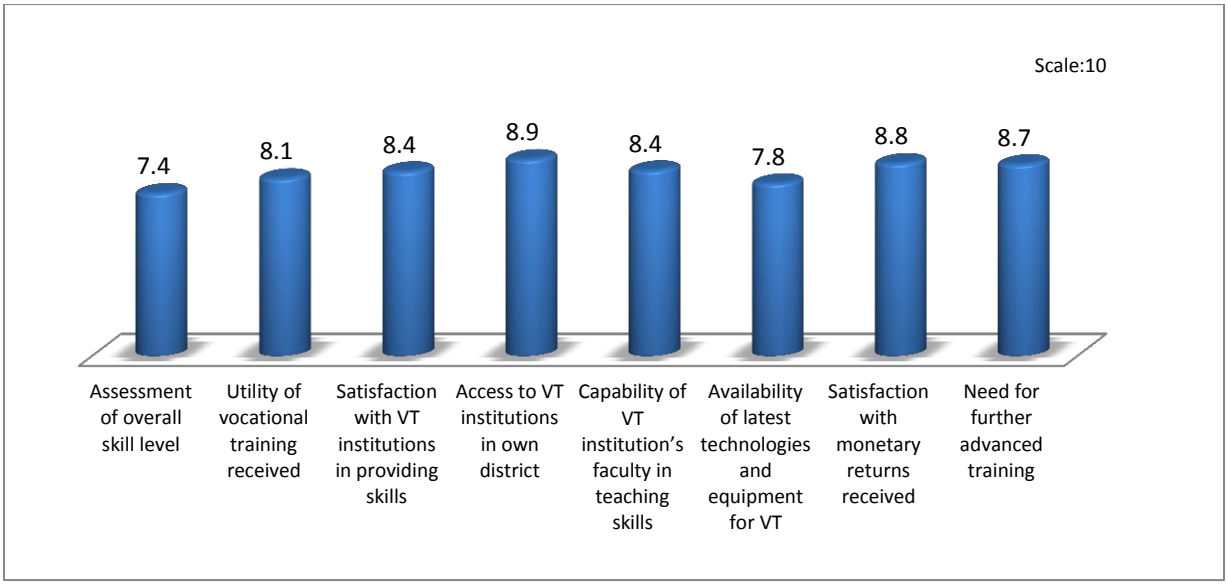


Figure 144 Guntur Youth's perception, need and aspirations

The respondents were also asked to assess their experiences with VTIs on a scale of 10. Those sampled rated access to VT institutions highly, giving it an overall score of 8.9. However, they gave the assessment of their overall skills he lowest rating of 7.4. Not surprisingly, the respondents show interest in further training, giving it a rating of 8.7. While the average monthly income of the surveyed group was higher than in other district, only 31 percent of the youth were satisfied with their current monthly income.

4.7.11 Recommendations: Skill Development Eco System

A large section of Guntur's manpower will continue to be employed in agriculture. On the other hand, other industries would need manpower skilled in new technologies. Currently, Guntur suffers from a lack of entrepreneurship programs based on market needs. In order to fulfill future manpower demand, the state government and NSDC should support training provider offering courses in machine repair, supply chain management, customer relations, sales, computer-based training, and agro -based entrepreneurship courses.

Sectors	Growth Opportunities
Construction	• The construction sector is the highest contributor (50 percent) to the GDDP under secondary sector in 2009-10. • In terms of anticipated employment, the sector will require approx. 3.3 l workforce in coming years till 2021-22.
BFSI	• The sector has witnessed CAGR of approximately 14 percent since 2004-05 till 2009-10.

	• Currently, the district doesn't have many training courses focused on this sector. Thus, more training capacity needs to be built to cater to the industry demand.
Textile & handicrafts	• The district has various textiles and handicrafts clusters. These clusters have potential to grow if provided with the required support. • The sector currently employ minimally skilled workforce. Thus, focused training need to be provided in this sector.
Engineering & Manufacturing.	• Andhra Pradesh industrial infrastructure corporation has proposed an engineering park in the district. • Other focus sector are manufacturing of coke & petroleum and chemicals and pharmaceuticals

Table 80 Key demand sectors in the district

The key stakeholders' contribution in enabling to achieve the target would be as follows:

State: Guntur district holds the highest position in the state in terms of total workforce supply and retains the second position when it comes to the workforce population in the age group of 15-59 years.

Action Plan

a) With high ratio of working population and low literacy rate, the State immediately needs to focus on providing placement driven vocational training model for the youth.
b) State should focus more on entrepreneurship driven programmes for sectors such as food processing and agro allied industries.
c) State can also encourage entrepreneurship by providing seed capital after successful completion of training. This can be implemented in partnership with local NGOs and training partners.

Training Partners:

Action Plan:

a. Since large sections of the workers are still expected to be employed in agriculture sector, training partners need to provide courses in multiple skills taking into account seasonal un-employment.
b. The training location should ideally be closer to work locations for better access to the youth.
c. The sectors to focus on would be machine repair, supply chain management, customer relations, sales, computer-based training, and agro-based entrepreneurship. Along with these, specific course curriculum designed for communicative English, life skills and basics in computer should also be the key areas of skill development.

Industries:

Action Plan:

a) Industry should focus on supporting the training centers in capacity building through trainers and providing equipment.
b) Industry should extend collaboration with state and VTPs to provide inputs in curriculum development in trades such as food processing, power generation and construction.
c) On-the-job training should be encouraged to up-skill the existing workers.

NSDC:

Action Plan:

a) NSDC would be an enabler to lead the training partners in setting up skill development centres in sectors like agriculture & allied, construction, trade, hotels & restaurants, BFSI and registered industries, by encouraging specifically designed proposals with placement driven models.
b) NSDC should also play a vital role in state capital to build capacity for the state by anchoring specific roles (through partners or associations) in the overall state skill development plan.

4.8 Hyderabad

The subsequent section highlights the economic base and the occupational structure of Hyderabad. It identifies the high impact industries and skills needed to match the expected growth.

The latter section presents the projected workforce demand and supply in the coming years and the optimization plan for the district.

4.8 Hyderabad

4.8.1 Hyderabad District Demographic Profile

Hyderabad is the growth centre of Andhra Pradesh and one of India's five major metropolitan cities. Indeed, it is the only fully urbanized district in Andhra Pradesh. As per provisional Census 2011 data, Hyderabad's population is 4.01 million with a sex ratio of 943 females for every 1,000 males compared to the 2001 Census figure of 933. The total area of the district is 217 sq. km and it accounts for 4.71 percent of the total area in Andhra Pradesh. It is pertinent to note that among 23 districts of the state, Hyderabad district is the fifth largest in the state and is highly populated district. Hyderabad is a high performing district with above-average indicators. Its human development index (HDI) of 0.717 is much higher than the state figure of 0.537. The district's population is 100 percent urban; and its per capita income of INR 63,595 than the state's per capita income of INR 37,061 at constant price 2004-05. Hyderabad has huge potential for growth and is offering an enhanced standard of living to many of its people.

Hyderabad District at a Glance				
Population	**Hyderabad District**		**Andhra Pradesh**	**Remarks**
	Provisional Census 2011	**Census 2001**	**Provisional Census 2011**	
Total Population	4010238	3829753	84665533	
Total Population - Male	2064359	1981173	42509881	
Total Population - Female	1945879	1848580	42155652	
Population Growth	4.71	21.74	11.10	
Area Sq. Km	217		275100	
Density of Population (Density/Area sq.Km)	18480	17649	308	
Average Literacy	80.96	78.80	67.66	
Male Literacy	83.35	83.74	75.56	
Female Literacy	78.42	73.50	59.74	
Sex ratio (per 1000)	943	943	992	
Worker population participation rate		29.2	45.7	Census 2001
Cultivators to total workers		1.08	22.52	Census 2001
Agriculture laborer in workforce		0.6	39.64	Census 2001
Household workers		3	4.71	Census 2001
other industry and services		95.4	33.13	Census 2001

Table 81 Hyderabad district at a glance, Source: Provisional Census 2011

Among the 23 districts in the state, Hyderabad is the smallest, but also the most densely populated, with 18,480 persons per sq.km in the 2011 Census against 17,649 in Census 2001.

Hyderabad's literacy rate in 2011 was 80.96 percent, the highest in the state. In 2001, its literacy rate was 78.80 percent. Gender wise, around 83.35 percent of males and 78.42 percent of females are literates.

Hyderabad's total workforce participation rate is 29.2 percent. The total male working population is 48.2 percent against the female working population of 8.8 percent. It is pertinent to note that the proportion of the female working population in Hyderabad district is just 53.1 percent, which is lower than in most other districts. Out of the total working population, main workers comprise 27 percent of the total population followed by marginal workers at 2.2 percent, and non-workers at 70.8 percent. Out of those classified as main workers, 95.94 percent are engaged in other industries. Out of those remaining, household industries account for 2.56 percent and cultivators another 0.99 percent, and agricultural laborers at 0.51 percent.

4.8.2 Economic Profile

The district's Gross district domestic product (GDDP) has grown at the growth rate (CAGR) of 10.60 percent from 2004-05 till 2009-10. In 2009-10, tertiary sector contributed 84.26 percent to the GDDP primarily due to the contribution of real estate, ownership of dwellings and business services sector followed by secondary sector which contributed 15.28 percent to the district's GDDP.

As shown in the chart below, the primary and secondary sector has shown a very slight growth rate, although contribution of the tertiary sector grew by 11.52 percent from 2004-2005 till 2009-10.

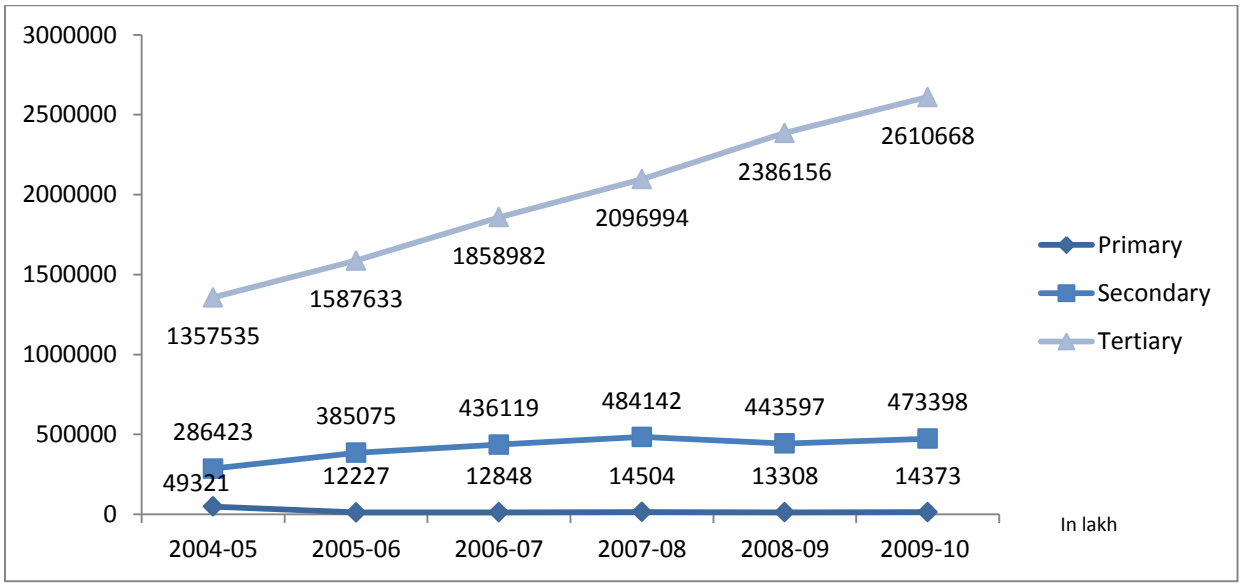


Figure 145 Sector level contribution to the GDDP, Hyderabad

Primary Sector

The primary sector (agriculture, forestry &logging, livestock, fishing and mining & quarrying) is a very negligible sector in the district and contributed 0.46 percent to the GDDP in 2009-10. Overall the sector witnessed negative growth rate (CAGR) of approx. -19 percent from 2004-05 till 2009-10.

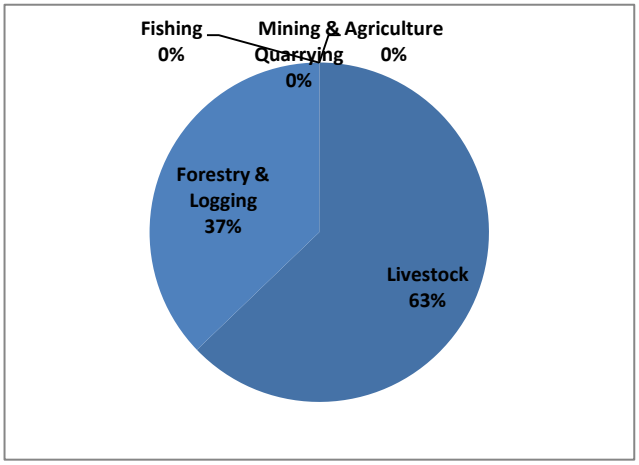


Figure 146 Primary sector contribution to GDDP, 2009-10

Secondary Sector

The contribution of the secondary sector to district GDP in 2009-10 was approximately 15.28 percent. The sector has shown a CAGR of 8.74 percent from 2004-05 till 2009-10, primarily due the contribution of construction sector. The construction sector has shown an impressive CAGR of 11.61 percent from 2004-05 till 2009-10 followed by manufacturing sector with CAGR of 7.68 percent.

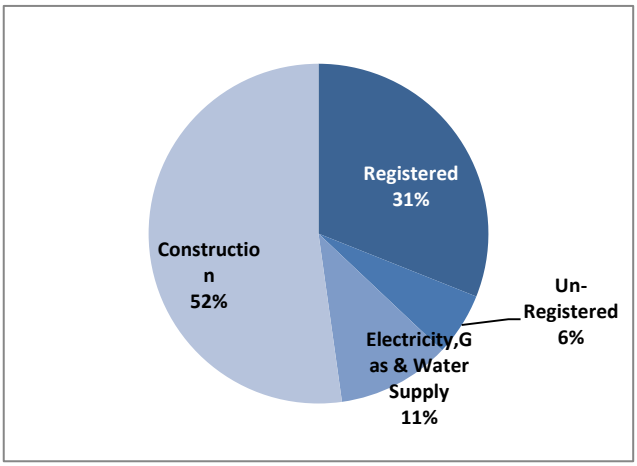


Figure 147 Secondary sector contribution to GDDP, 2009-10

Tertiary Sector

The contribution of the tertiary sector has been significant to the district's economy over the years. In the year 2009-10, the contribution of the tertiary sector was 84.26 percent to the district's GDDP. The sector has shown the highest CAGR among the three sectors of 11.52 percent from 2004-05 till 2009-10, primarily due the real estate, ownership of dwellings & business services.

Three sectors which have shown a high CAGR from 2004-05 till 2009-10 are transport by other means & storage (21.10 percent), communications (14.33 percent) and BFSI (17.17 percent). The real estate, ownership of dwellings & business services have contributed highest to the growth of the sector, it has shown a CAGR of 12.26 percent from 2004-05 till 2009-10.

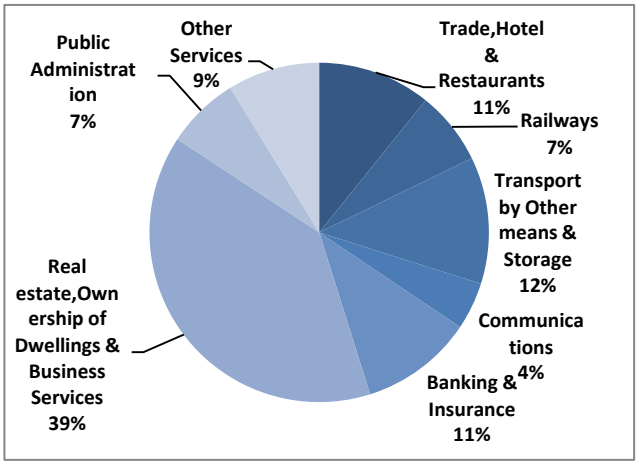


Figure 148 Tertiary sector contribution to GDDP, 2009-10

Industry Mapping

Hyderabad is considered one of South India's major industrial centers, resulting in a burgeoning demand for high quality, technically-skilled manpower. Industry in this district contributed 8.92 percent to the state GDP at constant prices from 2004-05 to 2009-10.

Hyderabad is one of the most important economic centers of Andhra Pradesh and has emerged as leading centre in the IT sector besides having a major presence in pharmaceuticals and entertainment. Several call centers and business process outsourcing (BPO) firms were set up in Hyderabad in the 1990s, turning it into a major hub for call centers.

The government of Andhra Pradesh gives the highest priority to industry in Hyderabad because of the vital role it plays in economic development and employment generation.

Hyderabad has several advantages: availability of land, scope for 360 degree expansion, growing incomes, manageable cost of living, and government support for transforming it into a key destination for commercial activity in the country. With growth drivers coming from various industries and a lack of quality commercial space elsewhere, Hyderabad can become an attractive destination for commercial realty development.

There are three industrial estates located in Chandulal Bhardari, Sanathnagar and Azamabad, and all of them are fully occupied. There are also several large and medium industries in Hyderabad district that are focused on sectors like chemicals, pharmaceuticals, engineering, textiles, packaging materials, tobacco, minting, electricals and electronics, automobiles etc.

Small Scale Industries

There are various small scale industries in Hyderabad. Most are IT -based firms, or work in printing, publishing, or automobiles. As per a District Industries Centre report, there are 17,840 industrial units registered in the district.

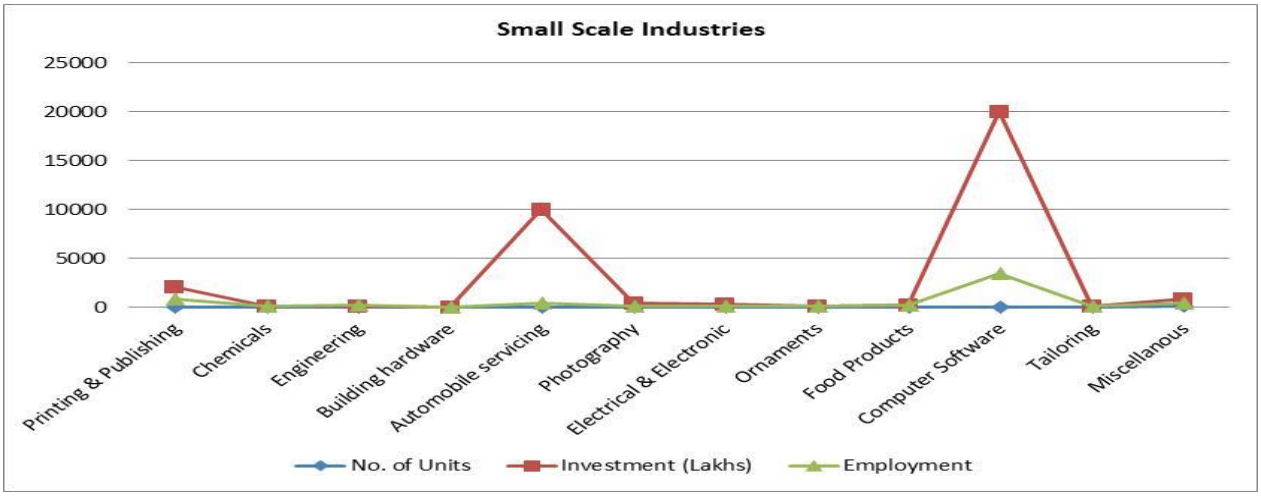


Figure 149 Small Scale Industries, Source: DIC Data

Details of traditional clusters

Hyderabad is famous for its pearls, bangles, and zardosi work. All these products are handmade by people who have been handed over the skills from past generations. There are 17 clusters of artisans involved in these activities and are concentrated in and around Charminar. The different traditional arts and crafts of the city are detailed below:

a. **Clay and Lac bangles**: The lanes and by-lanes of Chudi Bazar near Charminar in Hyderabad house innumerable households engaged in the traditional art of bangle making. Stone studded bangles made of lac and clay, and glass bangles of different colors are world-renowned.

b. **Zari work on saris and dresses**: Families in and around Charminar and Patel market do Kamdani, Gota and Zardosi works on saris, dresses, and other material. Applique, mirror, and *chamki* work are also much sought after. The work done is of very high quality and requires great skill. Depending on the intricacy of the designs, the prices per sari range from INR 200 to several thousands.

c. **Brass idol making work**: Some families in Hyderabad still continue this traditional work. It is estimated that around 500 households in and around Charminar area are engaged in brass idol work. Though the products are sold in emporia in the city at very high prices, only a small percentage of it goes to the artisans.

d. **Block printing and tying & dyeing**: Hyderabad is famous for tied and dyed saris and dress materials. This art is practiced by many families in the southern parts of the city.
e. **Silver foil**: Perhaps the most unique skill, found only in Hyderabad is the making of silver foil to decorate sweets. It is understood that there are about 100 tiny units in and around Charminar engaged in this activity, which involves constant flattening, by hand, of small silver pellets.

f. **Leather shoes and chappals**: The areas of Jiyaguda and Begum Bazar house up to 1,000 families of traditional cobblers who manufacture rubber and synthetic leather footwear. These are made on orders by traders, and only a part of the cost of the goods reaches the actual manufacturers.

g. **Leather tanning**: There are a few leather tanning units in Musheerabad in the city. But this being a residential locality, pollution due to the tanneries is a major problem. Many of these tanneries have since been forced to shut down.

Service clusters: Hyderabad is a hub of the IT industry, which is represented across sectors ranging from micro, small and medium sectors, to large MNCs like Microsoft, Infosys, Wipro etc. Many of these IT clusters lie just outside the borders of Hyderabad district.

4.8.3 Education Infrastructure and Utilization

Hyderabad has many reputed institutions for higher learning that draw in migrants from all over the state. It also has a high level of employment opportunities. The literacy rate of Hyderabad district is 80.96 percent and is ranked at the highest position in comparison to other districts in the state. In 2001, the literacy rate was 78.80 percent. Gender wise, around 83.35 percent of males and 78.42 percent of females are literates.

Schools	Total Number	No. of Enrollments
Primary Schools	1528	334344
Upper Primary Schools	349	72307
Secondary Schools	1109	318001
Higher Secondary Schools	13	20305

Table 82 Schools with enrolment details Source: Statistical Abstract, Andhra Pradesh - 2011

As per Census 2001, the total number of graduates and above in Hyderabad district was recorded 4,66,744. It is interesting to note that out of the total population of graduates and above, 65 percent were male. Hyderabad's graduates made up 16.5 percent of Andhra Pradesh's graduates.

Educational Institutions	Total Number
ITIs	6
Polytechnics	17
Engineering Colleges	27
Medical/nurses Colleges	12
Pharmacy Colleges	23

Table 83 Education Statistics; Source: Statistical Abstract, Andhra Pradesh - 2011

While Hyderabad's schools are better than most others in the state, they also face the challenge of keeping children enrolled. The gross enrolment ratio for classes I-V is 110.39 percent, followed by 96.69 percent for classes VI–VIII, and 76.30 percent for classes VIII–X. In contrast, the state's ratios are 100.46 percent, 84.76 percent, and 69.51 percent respectively. The dropout rates establish an increasing trend of 38.95 percent over classes I-X. Hyderabad's dropout rate is lower than the state figure by 7.26 percentage points.

Hyderabad has 27 engineering colleges out of which only seven are the government colleges and the rest are private. These engineering colleges together have a combined intake capacity of approximately 11,376 students per year. Hyderabad has the second highest number of

engineering colleges in the state. Major courses offered include electronics and telecom engineering, computer science & engineering, mechanical engineering, and instrumentation.

Hyderabad has 17 polytechnic colleges with a total intake capacity of 4,170 students per annum. The district has the third highest number of polytechnic and pharmacy colleges in the state. It also has the third highest number of medical colleges in the state.

4.8.4 VTI's demand across various trades in Hyderabad district

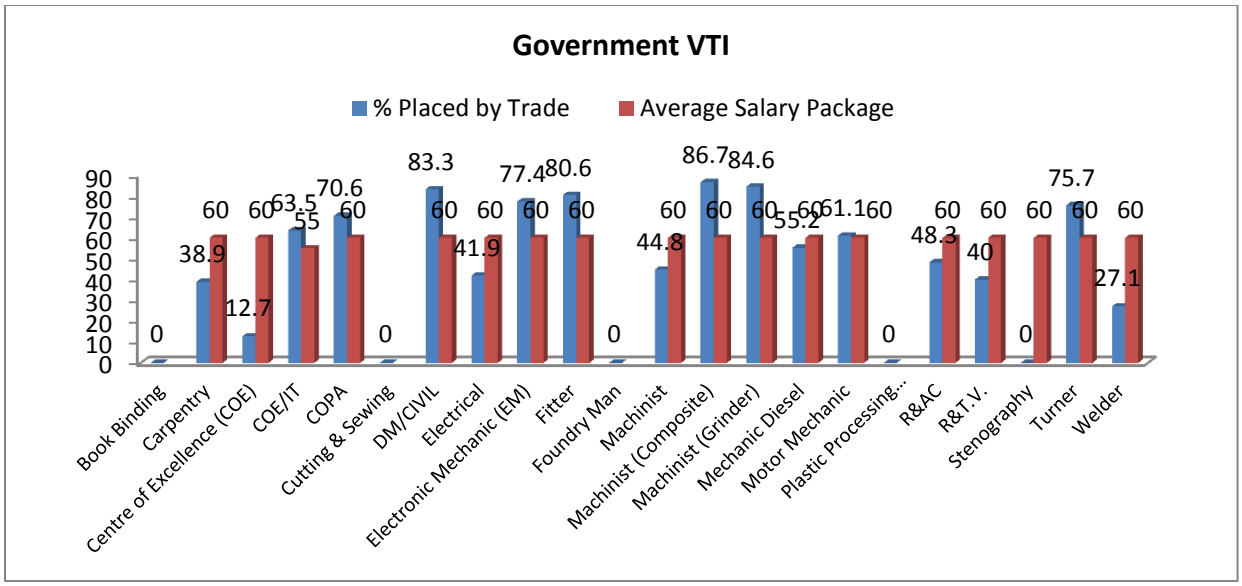
There are six vocational training institutes in the district. Out of these, only two are government ITIs. These institutes offer a wide range of courses including those for electricians, fitters, diesel mechanics, plumbers, instrument mechanics, welders, carpenters, dressmakers, masons, radio and television mechanics, turners, and stenographer. New trades are introduced based on emerging industry demand. At present, the courses for fitters and electricians are in most demand followed by courses for radio and television mechanics and motor mechanics. All the trades and units are permanently affiliated to National Council of Vocational Training of Director General of Employment and Training. All the trades are competing equally.

We surveyed a sample of five government VTIs and five private VTIs. The government VTIs offered courses in 26 trades, while the private VTIs only offered courses in four trades.

Government VTI Trades			Private VTI Trades
Operator	Electronic Mechanic (EM)	Motor Mechanic	Electrical
Book Binding	Fitter	Painter	Fitter
Carpentry	Foundry Man	Plastic Processing Operator (PPO)	Mech.R&AC
Centre of Excellence (COE)	Instrument Mechanic	R&AC	Mechanic Diesel
COE/IT	Lab. Assistant	R&T.V.	
COPA	Machinist	Stenography	
Cutting & Sewing	Machinist (Composite)	Turner	
DM/CIVIL	Machinist (Grinder)	Welder	
Electrical	Mechanic Diesel		

Table 84 comparisons of courses offered by government and private VTIs in Hyderabad

The electricians' trade is the most popular in Hyderabad, filling 230 seats in the government VTIs surveyed and 640 seats in the surveyed private institutes. Though government VTIs offer a variety of courses, few are oriented towards women candidates. There were no empty seats in the private VTIs and only a few in the government VTIs.



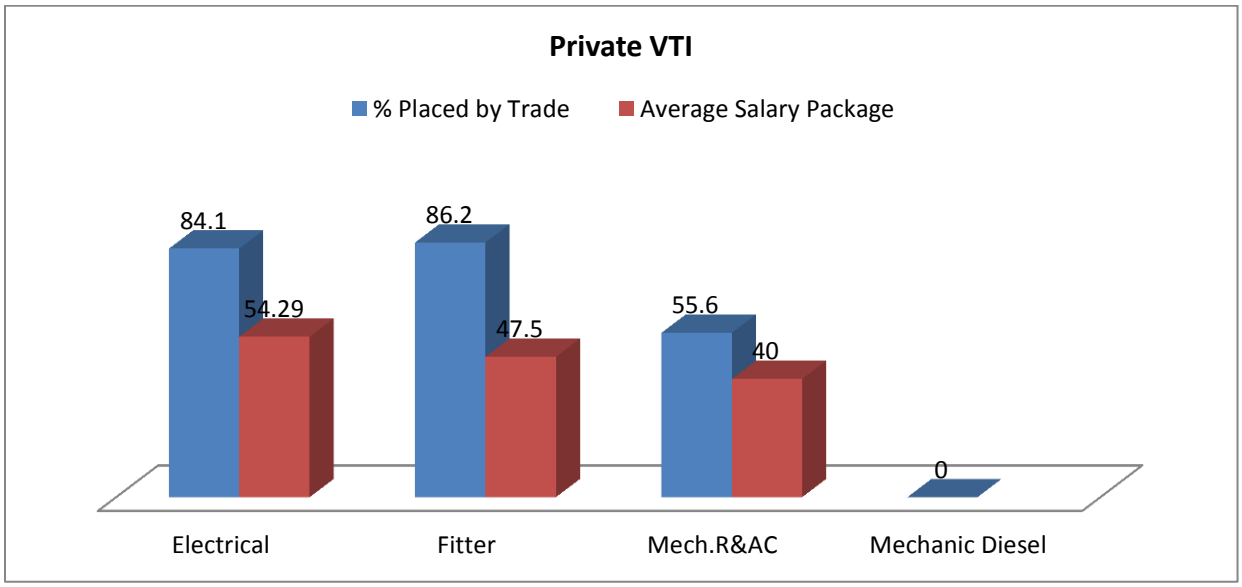
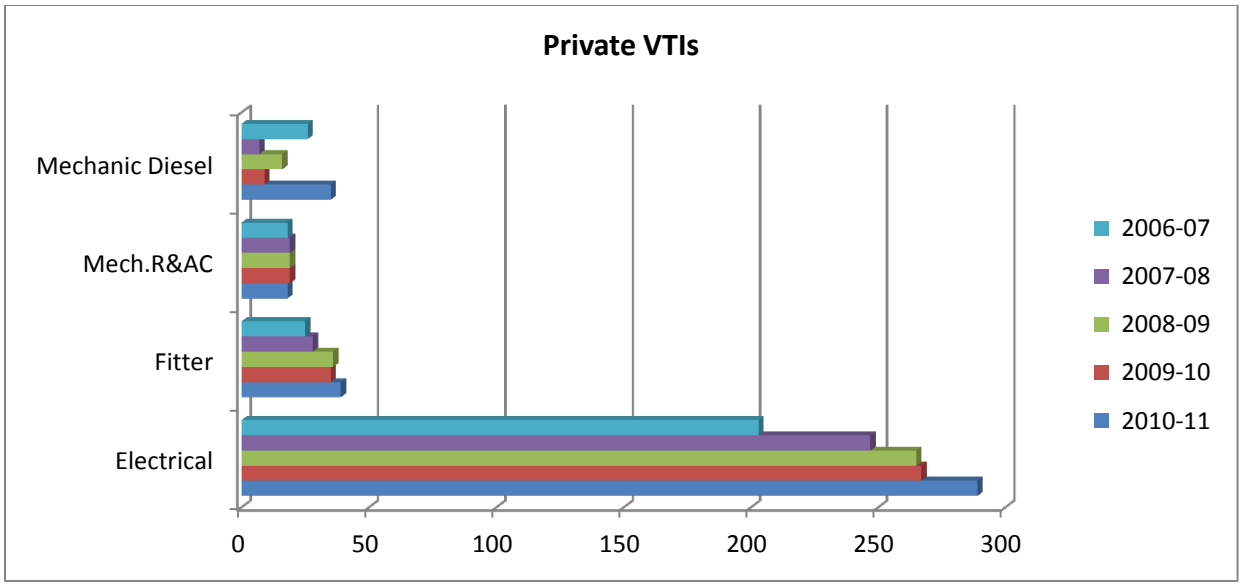


Figure 150 VTIs with placement percentage and average salary across trades

An overview of placements at the sampled VTIs shows that salaries at government VTIs are higher than at private VTIs on an average by INR 1,500. Placements at the Hyderabad VTIs were better than in most districts. Most of the placements were through campus recruitment.



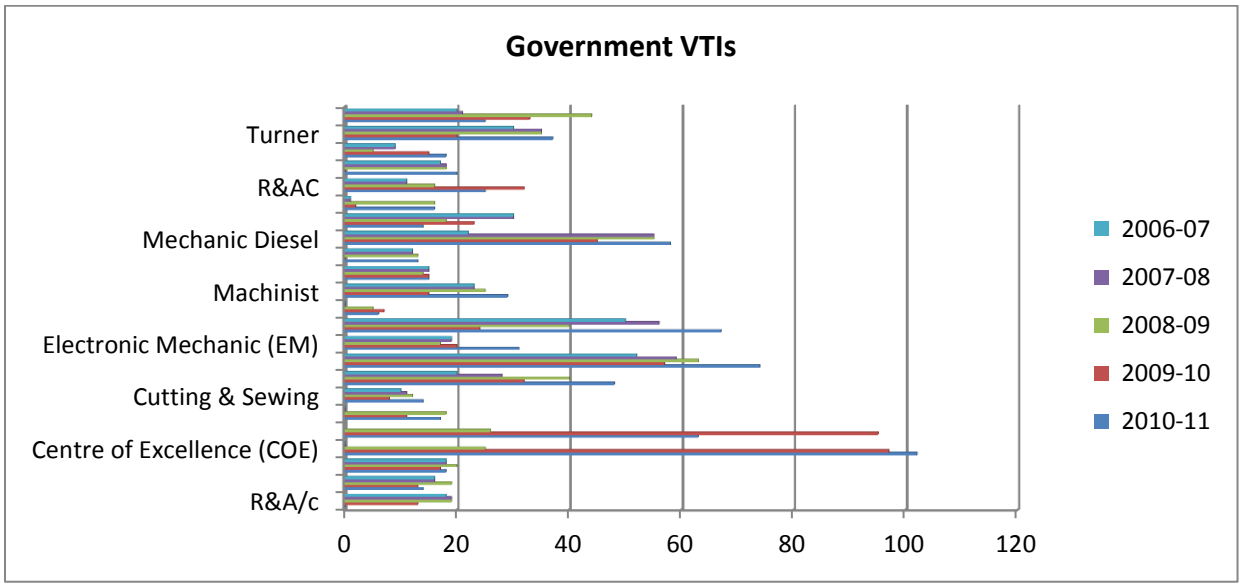


Figure 151 Students trained in Government & Private VTI over 5 years

The trends across all the trades show an increase and decreased demand from the data on number of trainees by trade over time in government as well as private VTIs over the years. In government VTIs, the COE trade increased intake continuously over the time period. Private VTIs have also increased the intake of trainees across all the trades except those for mechanics and refrigeration & air conditioning. The maximum intake is in the electrical course.

Government VTI	Positions	Approved	Actual
	Managerial	34	23
	Academic	162	93
	Support	50	42
Private VTI	**Positions**		
	Managerial	9	9
	Academic	55	55
	Support	14	14

Table 85 Approved & Actual status of manpower in Government & Private VTIs

Despite the advantages that Hyderabad's VTIs enjoy, staffing appears to be a challenge at the government institutes. There is a significant shortfall of academic staff, which could directly impact training. The government VTIs is also low on managerial and support staff.

4.8.5 Placement & Absorption Trend

Hyderabad district has six employment exchanges with 53,243 candidate names entered in its live register during 2009-10. Candidates can also look for jobs through the government's Rajiv Yuva Kiranalu mission, which helps local youth find employment. However, as the diagram shows, most candidates are either absorbed by private institutes with direct industrial linkages or through direct placements. The Job Mela organized as part of the Rajiv Yuva Kiranalu, has had little success with placing candidates.

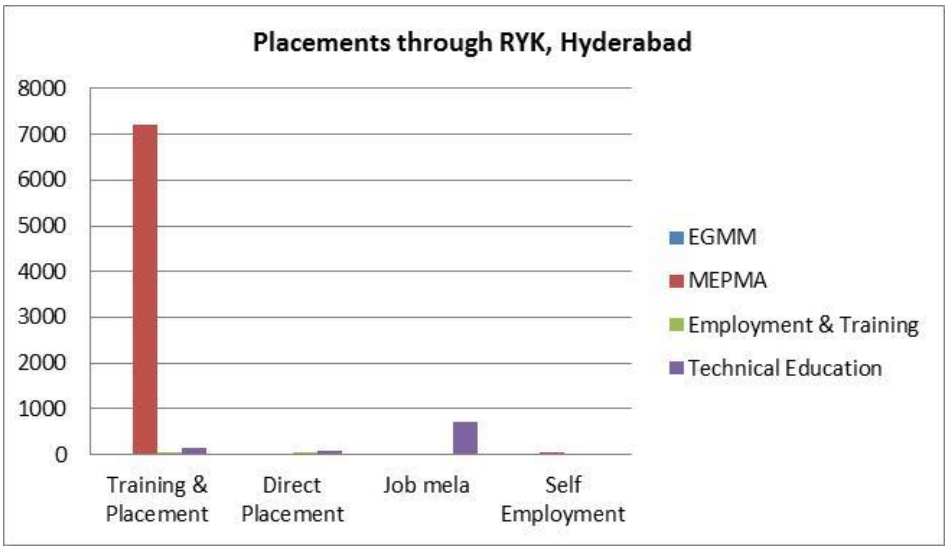


Figure 152 Placements through RYK; Source: RYK state level placements monitoring report, June 2012

4.8.6 Sector wise mapping of industries in Hyderabad

Existing sectors were mapped against the 20 high growth sectors identified by NSDC as presented in the table below. This would necessarily factor in the concentration of small scale industries as the major parameter (due to small number of large and medium scale industries). Sector wise analysis was made based on labor growth projections, demand, investments, employment etc.

Table 86 Sector wise mapping of Industries; Source: DIC

Industry wise Sector Mapping					
NSDC (High growth sectors)	**Units**	**Employment**	**High**	**Medium**	**Low**
Agriculture & Allied					
Automobile/Auto Components	18	606			
Food Processing (Food beverages & Tobacco products	113	3152			
Electronics Hardware	224	3167			
Textiles & Garments	35	2474			
IT Software	70	3487			
Chemicals & pharmaceuticals	43	1327			
ITES - BPO					
Tourism, hospitality and travel	213				
Building & Construction	10	46			
Transportation/logistics/warehousing and packaging	12	3174			
Healthcare	9	1052			
Education/ Skill Development	23	400			
Banking/ Insurance and finance	813				
Mining & Quarrying					
Manufacture of Wooden furniture	193	1810			
Paper & publication	180	7937			
Petroleum	6	403			
Mineral based industries	59	1936			
Service based industries (Repairs & maintenance: R&D)	110	7391			

High	Units>200, emp>1000 - all applicable
Medium	Units>100, emp>500 - all applicable
Low	Units>10,emp>30 - all applicable

The above spread of industries clearly indicates secondary and tertiary industries have gained prominence. There is huge potential for growth, in banking, travel and tourism, and in service based industries. There is marginal growth in emerging sectors like rubber/ plastics, petroleum, and minerals based industries. There is a huge potential for growth in engineering, pharmaceuticals, IT and ITES, steel, electronics and electricals, and textiles and spinning. Some of the leading players in this district are Hyderabad Industries, Kadia Oil Solvent Industries, Dr. Reddy's Laboratories, and many more companies in IT sector.

4.8.7 Composition of workforce

The majority of Hyderabad's workforce is engaged in services and other industries. Looking at the resources and skill sets of the workforce, service based industries should play a key role in coming years.

The working population in Hyderabad district is expected to rise by 21.7 percent against the 2001 data. It is pertinent to note that the total workforce participation rate is 29.2 percent. The total male working population is 48.2 percent against the female working population of 8.8 percent. It is pertinent to note that the proportion of the female working population in Hyderabad district is 53.1 percent, which is much lower than the state figure.

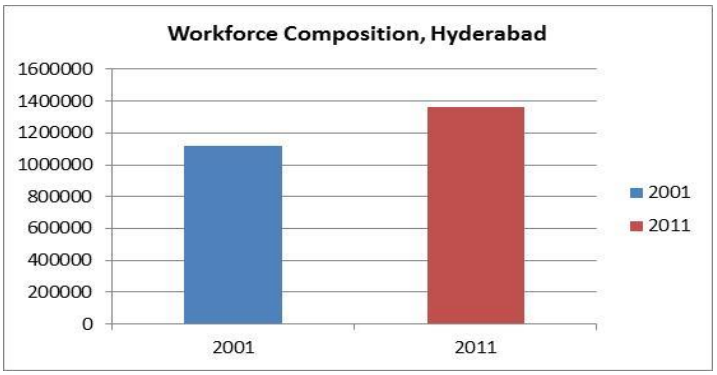


Figure 153 Workforce Comosition; Source: Deputy Commissioner of Labour, 2012

Out of the total working population, main workers comprise 27.0 percent of the total population, followed by marginal workers at 2.2 percent and non-workers at 70.8 percent. Also, out of the main worker population, 95.94 percent are engaged in other industries, followed by 2.56 percent in household industries, 0.99 percent who are cultivators, and 0.51 percent who are agricultural laborers.

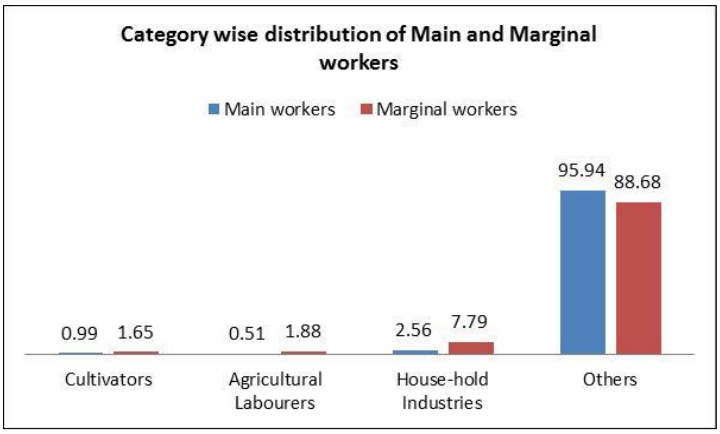


Figure 154 Category wise distribution of main and marginal workers; Source Census 2001

One unique feature of Hyderabad district is that the major proportion of both main workers and marginal workers are engaged in services and in other industries. Also, the proportions of main and marginal workers exceed the state averages by 11.1 and 5.5 percentage points respectively.

It has been estimated that the major proportion of workers in the age group of 15 - 59 years is higher in the category of main workers. Interestingly, among the non-workers and marginal workers, females in the age group of 15 - 59 outnumber males. Hyderabad district has the fifth highest working population in the age group 15-59 years.

4.8.8 Projected Workforce Demand

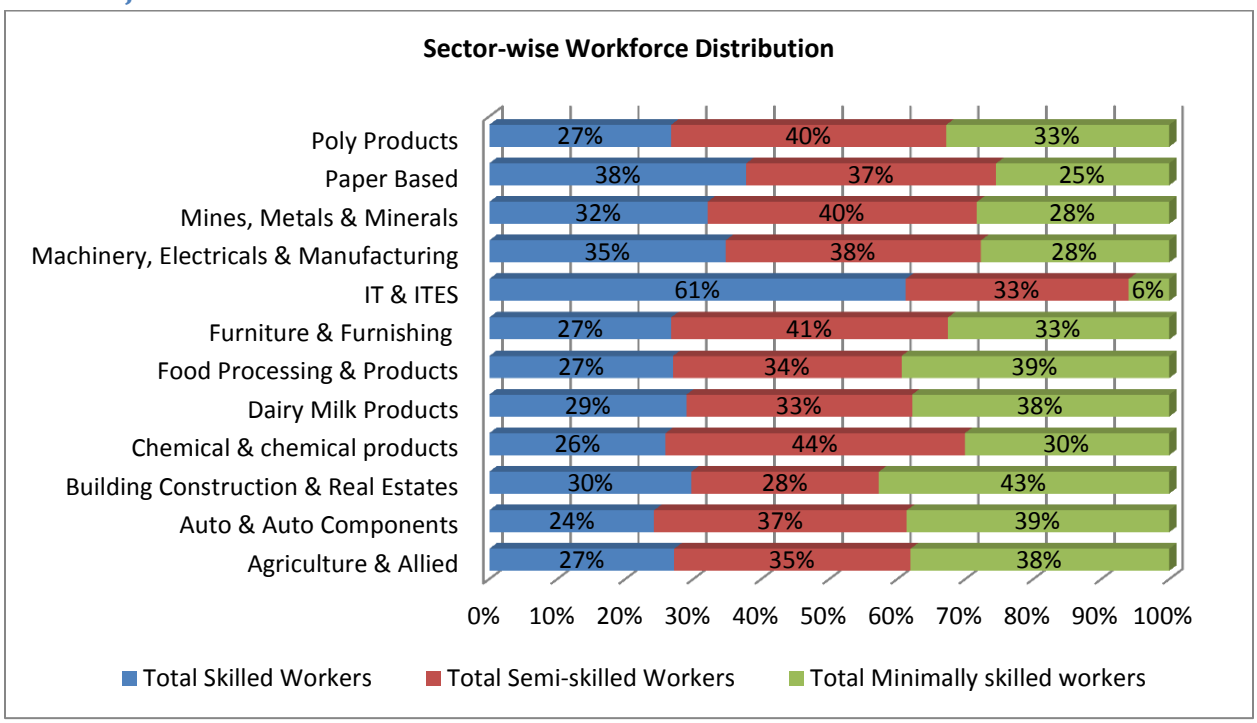


Figure 155 Sector wise current workforce distribution pattern across industries

We surveyed a total of 29 industries in 12 major sectors to predict future skill requirements. All 29 industries have shown a huge increase in their manpower since the time of their establishment for skilled, semi-skilled and minimally skilled manpower. For future requirements, industries showed interest in employing more skilled and semi-skilled, but not minimally skilled labor. Across the 12 sectors, the proportion of semi-skilled manpower is the highest followed by skilled manpower.

Industries in Hyderabad recruited most of their employees through references from current employees. Industries also employed a large section of its manpower though VTIs. Placement through contractors is also high when compared to other districts in the state.

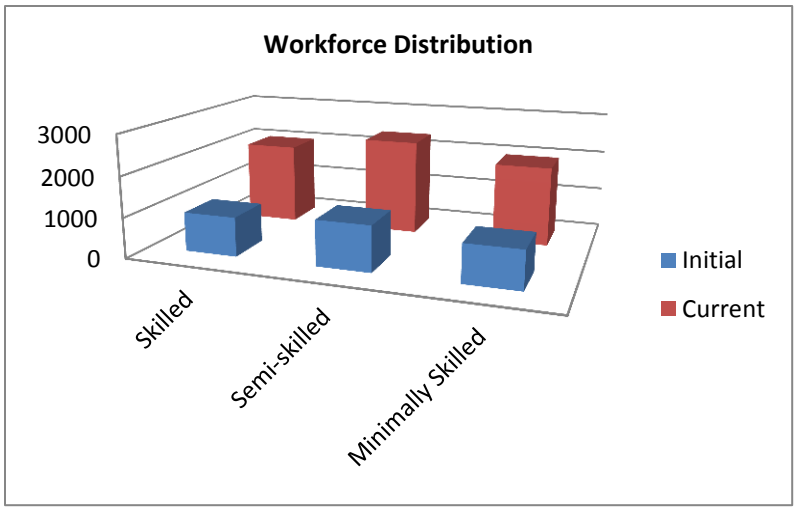


Figure 156 Workforce distribution in terms of skilling as per primary survey

Incremental manpower demand over the years till 2021-22

As per the table given below, it has been observed that the maximum incremental demand shall be in construction, real estate, transportation & logistics, hotels & restaurants and banking. Primary sector contributes very negligible percent to the GDDP in the district, thus a large manpower will continue to migrate from these sectors to secondary and tertiary sectors.

	2012-2017			2017-2022		
Industry	**Skilled**	**Semi-Skilled**	**Minimally Skilled**	**Skilled**	**Semi-Skilled**	**Minimally Skilled**
Agriculture & Allied Activities	-11133	-55663	-211518	-14566	-72830	-276756
Construction	45938	58554	27511	38307	41043	61290
Tourism, Travel & Hospitality	104147	-8489	-14637	44116	19852	13235
Transportation, Logistics, Warehousing & Packaging	66868	34065	11355	70415	35872	11957
IT & ITES Sector	18870	1976	360	18635	1951	356
Banking & Financial Services Insurance	53717	5889	961	40460	18207	12138
Real estate	40399	51816	22610	32294	34601	51671
Other Services	-17789	-33977	-23777	-58340	-27598	-14555
Food processing	-795	-1199	404	-795	-477	-318
Chemicals & Pharmaceuticals*	379	186	193	379	227	152
Rubber and plastic products*	221	120	101	221	133	89
Auto & Auto components*	1256	660	596	1256	754	503
Textile & leather	353	192	160	353	212	141
Wood & Paper products	-4580	-2739	-1841	-4580	-2748	-1832
Total	297852	51391	-187523	168155	49197	-141931

Table 87 Projected incremental workforce (demand) requirement till 2022 across all the sectors- Hyderabad

*Manufacturing Sectors

4.8.9 Skill Gap Analysis

The skill gap analysis was performed by undertaking a primary research on the employers through the survey instrument; structured questionnaire designed to map the current and the future skill requirements of the industries identified in the district on the basis of manpower absorption and production in high growth industries in the district. The analysis factored in industry linkages with vocational training institutes, employment exchange and with other sources for workforce absorption and retention and would highlight on the mismatch between

industry skill requirements and the skill pool emerging. The situation of skill gap for the district for 2012-17 and 2017-2022 based on projections is represented in the table below.

Incremental workforce Demand & Supply Gap						
	2012-2017			2017-2022		
Sectors	**Skilled**	**Semi-Skilled**	**Unskilled**	**Skilled**	**Semi-Skilled**	**Unskilled**
Demand	297852	51391	-187523	168155	49197	-141931
Supply	13460	10178	87666	7221	16786	86521
Gap	284393	41213	-275189	160934	32412	-228451

Table 88 Representation of incremental Skilled/ Semi-skilled & Minimally Skilled workforce gap 2012-2022

The district will require largest number of skilled manpower over the coming years. The surplus of minimally skilled workers needs to be pushed towards becoming more skilled.

4.8.10 Youth Aspirations

The youth study was primarily undertaken through a survey instrument, which used structured questionnaires designed to capture youth aspiration and perception. The survey covered candidates across the categories of employed, self-employed, unemployed and trainees.

Interviews were held with students, Out of those surveyed, 88.3 percent were college educated and only 11.7 percent had completed high school education. All the respondents were from registered VTIs. Out of the respondents who were trainees, 40 percent were undergoing training at government VTIs and the remaining 60 percent were at private institutions.

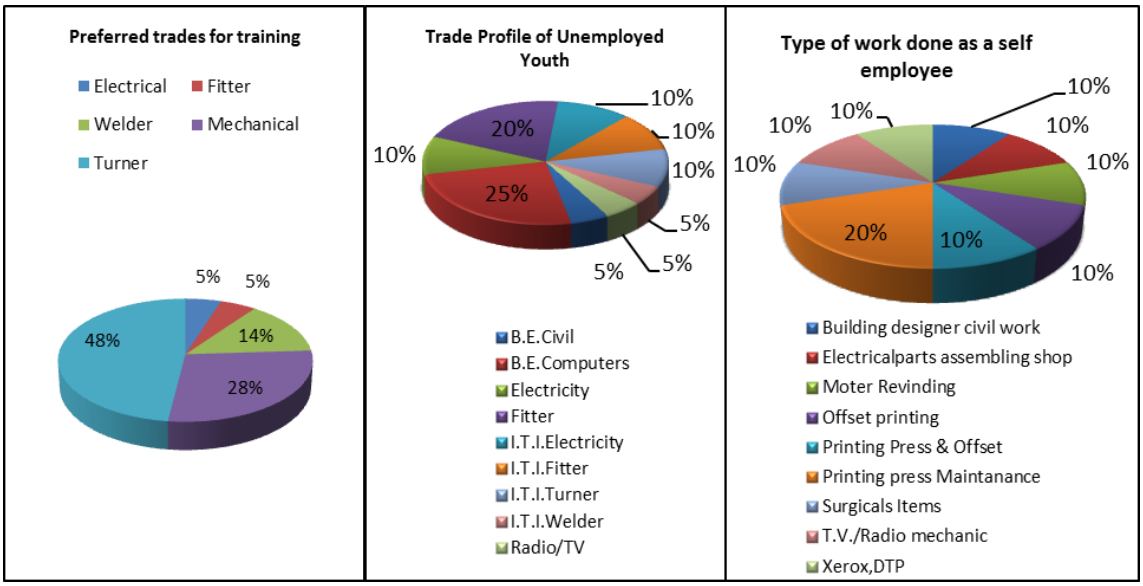


Figure 157 Profile of respondent s (Trainee, self employed and unemployed youth) by trade in sample of Hyderabad

The youth survey highlighted the training preferences of the respondents in Hyderabad. Most of the respondents preferred the course for turners followed by the mechanical trade. When it came to self-employment, the respondents found opportunities in a variety of trades. The survey also highlighted the potential for offering more entrepreneurship courses in the VTIs. On the

other hand, the supply of trained youth in the computers and fitter trades were more than what industry could absorb.

Parameters considered by District's youth while opting for vocational training

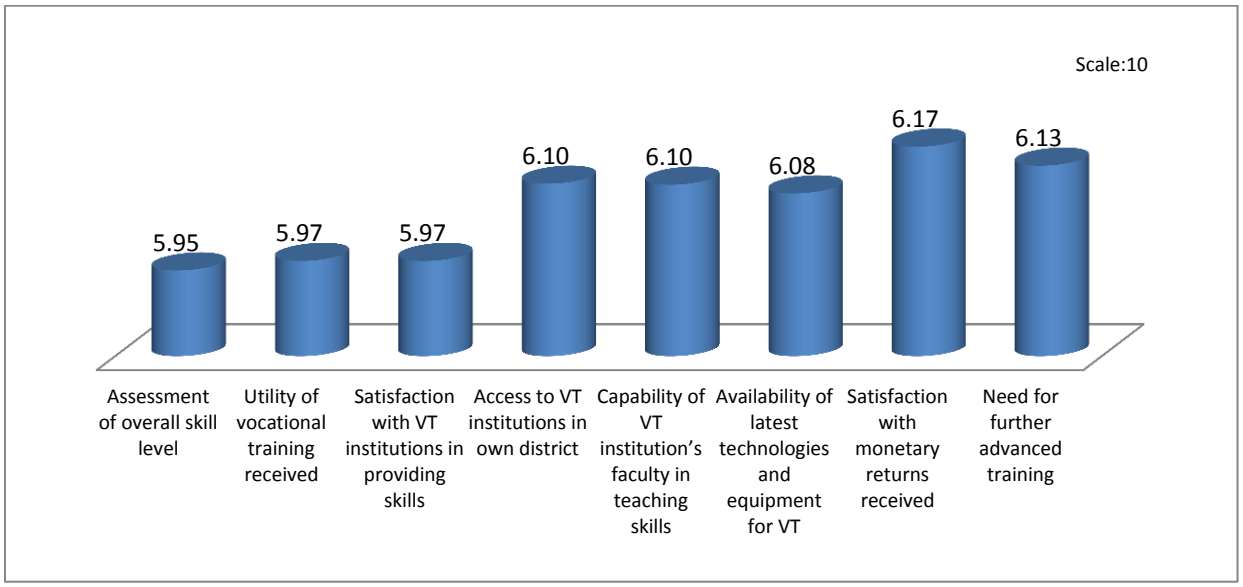


Figure 158 Perception, needs and aspirations of youth in Hyderabad

The respondents were also asked to rate their experiences with VTIs. Most did not provide high ratings. They expected better training staff and facilities. More significantly, they didn't see much monetary value in taking the courses. Not surprisingly, 86 percent of those sampled were not satisfied with their current salary levels and expected an increment of INR 6000 on average.

4.8.11 Recommendations: Skill Development Eco System

In order to keep Hyderabad's industries on their consistent growth path, it is important to maintain the supply of skilled manpower. The district has grown in leaps and bounds in last few years. Training capacity has been increased in the past few years, but still quality still needs to be improved. Currently, all industries demand customized training solutions for their workforce. Thus training partners with strong industry linkages and up-to date facilities should be encouraged by NSDC. Focus sectors should be construction, IT/ITES, retail, hospitality and BFSI.

Sectors	Growth Opportunities
Construction	• The sector contributed highest (52 percent) to the DDP under secondary sector in 2009-10. • In terms of anticipated employment, the sector is expected to have incremental manpower requirement of 2.7 lakh manpower till 2021-22.
Real estate	• The sector has witnessed CAGR of 12.2 percent from 2004-05 till 2009-10. • In terms of anticipated employment, the sector is expected to have incremental manpower requirement of 2.3 lakh manpower till 2021-22.

Transportation, Logistics, Warehousing & Packaging	• Being the capital city, transportation, logistics and warehousing is one of the most important sectors in the district. • The sector witnessed highest CAGR (approx. 21 percent) among all sector from 2004-05 till 2009-10. • The district is one of the largest employers in this sector in the state. • Currently no specific courses are being provided in the district in this sector.
Tourism, Travel & Hospitality	• Tourism and hospitality is one of the key employment sectors in the district. • Hyderabad is well connected to with major cities and is also a potential for medical tourism. In terms of international and domestic tourist arrivals, it is one of the preferred destinations in southern India.
BFSI	• In terms of growth rate, banking and financial services registered second fastest growth rate of 17 percent from 2004-05 till 2009-10. • Hyderabad being the state capital of Andhra Pradesh is expected to see high requirement of skilled and semi-skilled manpower in this sector.
IT&ITES	• The cyber city in Hyderabad houses largest number of national and multi-national companies in this sector. • Already employing a large section of manpower in this sector, the sector is expected to maintain it's manpower requirement over the coming years.

Figure 159 Key manpower demand sector in the district

The key stakeholders' contribution in enabling to achieve the target would be as follows:

State: The district attracts large number of migrants from across the state and southern India for better employment opportunities. Youth aspirations are high and they expect better work conditions.

Action Plan:

a) State needs to focus on training of migrant labour. Most of these are minimally skilled workers, especially in sectors such as construction. State should implement schemes encouraging industries to provide basic level skill training to these workers and certify the same through SSCs or NCVT.
b) State should focus on upgrading employment exchanges for better placements of existing labour. Currently, role played by employment exchanges is negligible.
c) State should aim to promote its existing schemes through public forums for better youth awareness.

Training Partners:

Action Plan:

a) Training providers must focus on proving highly technical skills to the youth. This will ensure that students meet the industry criteria for better placements.
b) Training providers should partner with local schools, NGOs, local bodies for better student mobilization.
c) For semi-skilled workers, focus should be on providing multi skilling courses that provide jobs at sub levels across various sectors. This will ensure portability of the skills.

Industries:

Action Plan:

a) With large skilled manpower requirement, Industry should play a greater role in ensuring that skill development is relevant.
b) Industry should actively participate in train the trainers program, facilitate guest lectures and share modern equipment for training with VTPs.
c) Industry should also actively provide feedback to the training providers to ensure better quality training.

NSDC: NSDC would be an enabler to lead the training partners in setting up skill development centres in sectors like construction, IT/ITES, retail, hospitality, BFSI, and logistics.

Action Plan:

a) NSDC should focus on rationalizing fee structure in various government and private training institutions basis on required quality standards and expected salary on training completion.
b) SSC should play an important role in assessments and certifications. Occupational standards must be properly.

4.9 Karimnagar

The subsequent sections analyze the economic base of Karimnagar and its occupation structure. It identifies the high impact industries and skills needed to match the expected growth.

The latter section presents the projected workforce demand and supply in the coming years and the optimization plan for the district.

4.9 Karimnagar

4.9.1 Karimnagar District Demographic Profile

Karimnagar is one of the few districts of the Telengana region endowed with vast natural resources for both agriculture and industry. As per provisional Census 2011 data, Karimnagar accounts for population of 3.811 million with a sex ratio of 1,009 females per 1,000 males. In contrast, the sex ratio in 2001 was 993. Among the 23 districts of the state, Karimnagar recorded a considerable improvement in sex ratio and is ranked at the fifth position. There was a decrease in the decadal growth of population of 5.8 percentage points, which indicates stabilization of the population. The district has a population density of 322 inhabitants per sq km, an increase of 27 persons per sq km since 2001. The district's human development index is 0.573, which is the seventh highest in the state. Karimnagar has also urbanized over the years. The percentage of urban population to the total population has gone up to 26.08 percent in 2011 compared to 19.44 percent in 2001. On the other hand, the district's per capita income of INR 32,289 is lower than the state average of INR 37,061 at constant prices 2004-05.

Karimnagar District at a Glance				
Population	**Karimnagar District**		**Andhra Pradesh**	**Remarks**
	Provisional Census 2011	**Census 2001**	**Provisional Census 2011**	
Total Population	3811738	3491822	84665533	
Total Population - Male	1897068	1747968	42509881	
Total Population - Female	1914670	1743854	42155652	
Population Growth	9.16%	14.96%	11.10	
Area Sq. Km	11823		275100	
Density of Population (Density/Area sq.Km)	322	295	308	
Proportion of Andhra Pradesh population	4.50%	4.58%		
Decadal growth of population (2001 - 2011)	9.16%	14.96%	11.10%	
Literacy rate	64.87	54.9	67.66	
Male Literacy	74.72	67.10	75.56	
Female Literacy	55.18	42.70	59.74	
Sex ratio (per 1000)	1009	993	992	
Worker population participation rate		49	45.7	Census 2001
Cultivators to total workers		33.4	22.52	Census 2001
Agriculture laborer in workforce		25.3	39.64	Census 2001
Household workers		12.6	4.71	Census 2001
other industry and services		28.7	33.13	Census 2001

Table 89 District at glance

The literacy rate of Karimnagar in 2011 was 64.87 percent compared to 54.9 percent in 2001. As of 2011, the district trails behind the average state literacy rate of 67.66 percent. According to provisional Census 2011 data, the male literacy figure stood at 74.72 percent, while female literacy was at 55.18 percent – up from 42.7 percent in 2001. The district's literacy rate is the fourteenth highest in Andhra Pradesh.

Karimnagar's total workforce participation rate is 49 percent. The total male working population is 55.5 percent against the female working population of 43.5 percent. Also, the proportion of the female working population in Karimnagar is 8.6 percentage points lower than the state figure.

As per Census 2001, the working population of Karimnagar constituted 49 percent of the total population. Out of the population of main workers, 33.4 percent are cultivators and 25.3 percent are agricultural laborers. Household industries account for another 12.6 percent of main workers and other industries account for 28.7 percent. There is a declining trend observed in the workforce engaged as agricultural laborers and cultivators even as the workforce in other activities has increased.

4.9.2 Economic Profile

The district's Gross district domestic product (GDDP) has grown at the growth rate (CAGR) of 7.34 percent from 2004-05 till 2009-10. In 2009-10, tertiary sector contributed 49.02 percent to the GDDP primarily due to the contribution of trade, hotels and restaurants sector followed by primary sector which contributed approx. 33.08 percent to the district's GDDP.

As shown in the chart below, the contribution of the primary and tertiary sector has been the highest in the GDDP, although contribution of the secondary sector is less and grew by 6.76 percent from 2004-2005 till 2009-10.

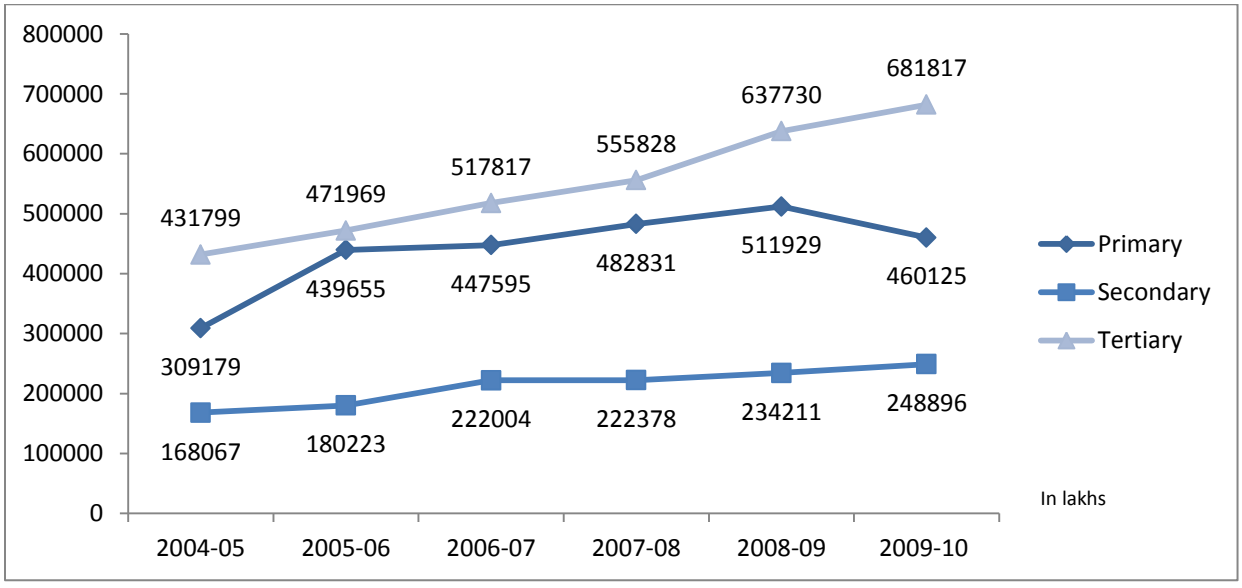


Figure 160 Sector level contribution to the GDDP, Karimnagar

Primary Sector

The primary sector (agriculture, forestry &logging, livestock, fishing and mining & quarrying) contributed 33.08 percent to the GDDP in 2009-10. Mining and quarrying remained as the highest contributor to the primary sector, contributing 42 percent to the primary sector in 2009-10, followed by agriculture (35 percent), livestock (18 percent) and forestry and logging (4 percent).

The CAGR for primary sector is 6.85 percent from 2004-2005 till 2009-10 with livestock registering highest growth (20.44 percent) from 2004-05 till 2009-10.

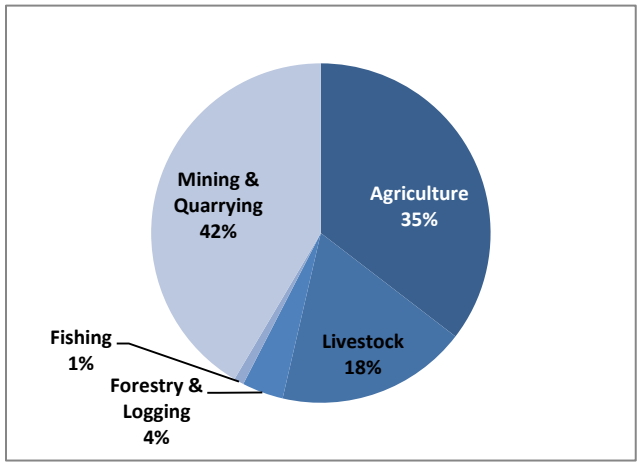


Figure 161 Primary sector contribution to GDDP, 2009-10

Secondary Sector

The contribution of the secondary sector to district GDP in 2009-10 was approximately 17.90 percent. The sector has shown a CAGR of 6.76 percent from 2004-05 till 2009-10, primarily due the contribution of construction sector.

The construction sector has shown an impressive growth from 2004-05 till 2009-10. However the growth of manufacturing sector has been negligent with registered manufacturing units growing only by 0.84 percent and unregistered manufacturing units by 4.24 percent from 2004-05 till 2009-10.

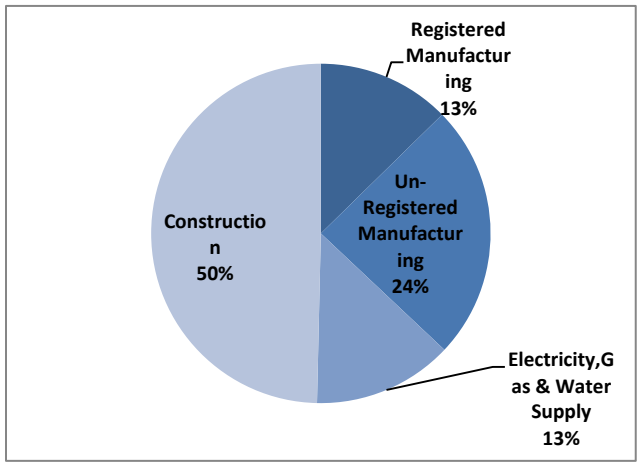


Figure 162 Secondary sector contribution to GDDP, 2009-10

Tertiary Sector

The contribution of the tertiary sector has been significant to the district's economy over the years. In the year 2009-10, the contribution of the tertiary sector was 49.02 percent to the district's GDDP. The sector has shown the highest CAGR among the three sectors of 7.91 percent from 2004-05 till 2009-10, primarily due the trade, hotels and restaurants sector.

Two sectors which have shown a high CAGR from 2004-05 till 2009-10 are

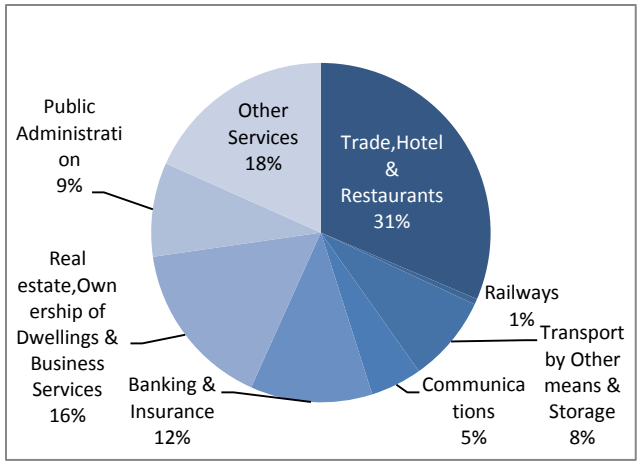


Figure 163 Tertiary sector contribution to GDDP, 2009-10

communications (15 percent) and BFSI (14 percent). Trade hotels and restaurants have contributed highest to the growth of the sector; it has shown a CAGR of only approx. 10.28 percent from 2004-05 till 2009-10. Real estate and other services grew by 5.31 percent from 2005-05 till 2009-10.

Industry Mapping

Karimnagar has more than 5,000 small scale industries. A majority of them are related to agriculture, minerals, animal husbandry, and engineering. The district also excels in the production of paper, oil, saw, grains etc.

Large & Medium Industries

Karimnagar houses famous well-known NTPC power plant at Ramagundam. The plant supplies power to Andhra Pradesh, Tamil Nadu, Goa, Pondicherry, Karnataka, and Kerala. Many large scale companies like NTPC, Kesoram Cements, and Ramagundam Singareni Collieries are located in and around Karimnagar. Sacred places like Vemulawada, Dharmapuri, Kaleshwaram, and Konda Gattu are all located in Karimnagar, attracting pilgrims.

Small Scale Industries

There are 9,018 small scale industries in Karimnagar with an investment of INR 2,112 million, providing employment to 79,373 persons. Most of the small scale industries are rice mills, parboiled rice mills, seed processing units, packaged drinking water, flour, chilies, turmeric mills, saw mills, wooden furniture, power looms, readymade garments, stone crushers, general engineering, milk processing, silver filigree, flex printing, screen printing, cotton ginning mills, granite processing, cement fly ash, and clay bricks.

4.9.3 Education Infrastructure and Utilization

Education sector plays an important role in the socioeconomic development of the economy. There is a huge scope for growth in the education sector in Karimnagar district. The government is taking several initiatives to set up new educational institutions. Education in the district is catching the attention of outsiders, and some international schools may open their branches in Karimnagar.

Schools	Total Number	No. of Enrollments
Primary Schools	2875	238012
Upper Primary Schools	751	110492
Secondary Schools	1256	295247
Higher Secondary Schools	11	4286

Table 90 Schools with enrollment details Source: Statistical Abstract, Andhra Pradesh - 2011

Although Karimnagar has the second highest number of upper, primary, and secondary schools in Andhra Pradesh, the district is ranked ranks fourteenth in literacy.As per Census 2001, the total number of graduates and above in Karimnagar district is 81,001. It is interesting to note that out of the total population of graduates and above, 65 percent were male. Karimnagar's graduates account for 2.86 percent of Andhra Pradesh's total graduates.

Educational Institutions	Total Number
ITIs	14
Polytechnics	6
Engineering Colleges	19
Medical/nurses Colleges	4

Table 91 Education Statistics; Source: Statistical Abstract, Andhra Pradesh – 2011

Even with the adequate infrastructure, getting children to stay in school remains a challenge. As per 2011 figures, the gross enrolment ratio for classes I-V is 95.45 percent followed by 96.89 percent for classes VI–VIII and 87.54 percent for classes VIII–X. In contrast, the ratios for the state are 100.46 percent, 84.76 percent, and 69.51 percent respectively. The dropout rates show an increasing trend over classes I-X is 34.26 percent. It is pertinent to note that the dropout rate in district is lower than the state figure by 11.95 percentage points.

There are a total of 19 engineering colleges for technical education, out of which only two are government colleges and the rest are private. These engineering colleges offer various courses and have a combined intake capacity of approximately 5,232 students per annum. Major courses offered include computer science and engineering courses in electronics, telecom, computers, electrical engineering, mechanical engineering, and instrumentation. There are six polytechnic colleges with a total intake capacity of 1,380 students per annum.

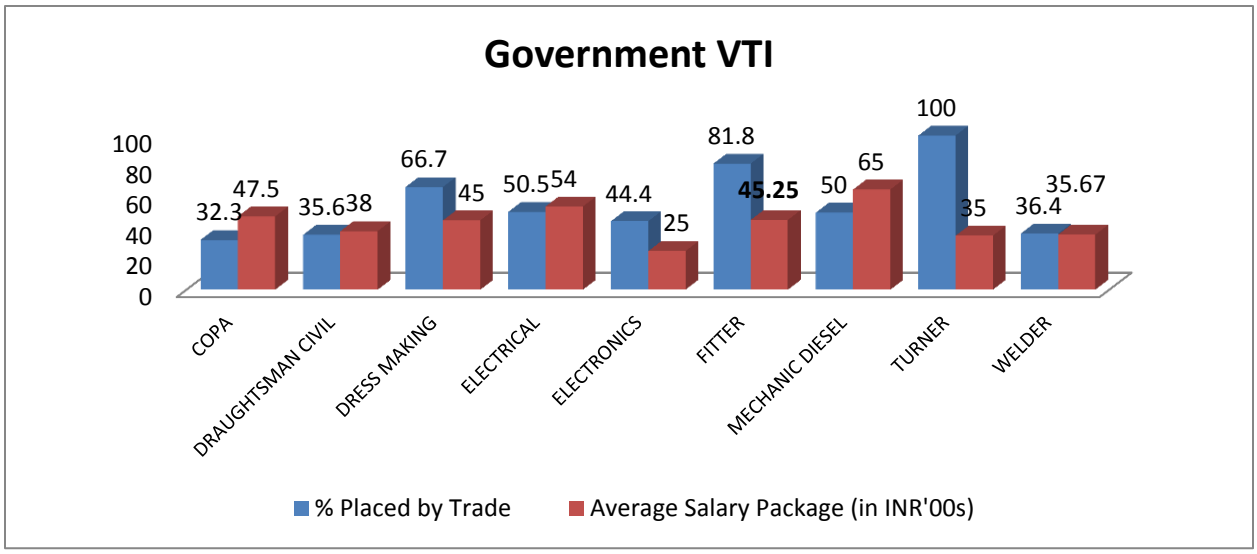
4.9.4 VTI's demand across various trades in Karimnagar district

The government ITIs in the district aim at imparting training that can meet emerging industry demand. Courses offered by government and private institutes include those for fitters, welders, dressmakers, stenographers, computer operator & programming assistant (COPA), radio and TV mechanics, electricians, refrigeration and air conditioning, and motor vehicle mechanics. New trades are introduced based on industry requirements. All the trades are permanently affiliated to National Council of Vocational Training of the Director General of Employment and Training. Seating capacity is higher in courses for electricians, fitters and mechanics for motor vehicle.

Government VTI Trades		Private VTI Trades
COPA	**Mechanic Diesel**	**Draughtsman Civil**
Draughtsman Civil	**Mechanic Motor Vehicle**	**Electrical**
Dress Making	**Mechanic Radio & TV**	**Fitter**
Electrical	**Turner**	**Mechanic Diesel**
Electronics	**Welder**	
Fitter		

Table 92 Courses offered in government and private VTIs (sample)

The government VTIs sampled for the study offer 11 different trades for training while the private VTIs offer four trades. It appears that electrical and fitter trades are the most popular trades in both government and private VTIs. The electrical trade appears to be the most preferred in Karimnagar district. Private VTIs are offering around five times the number of seats in the electrical trade as government VTIs. Also, government VTIs appear to have vacancies in all trades except those for motor mechanics and radio and TV mechanics. In private VTIs, on the other hand, there is a gap between actual and approved strengths in the civil draughtsman trade.



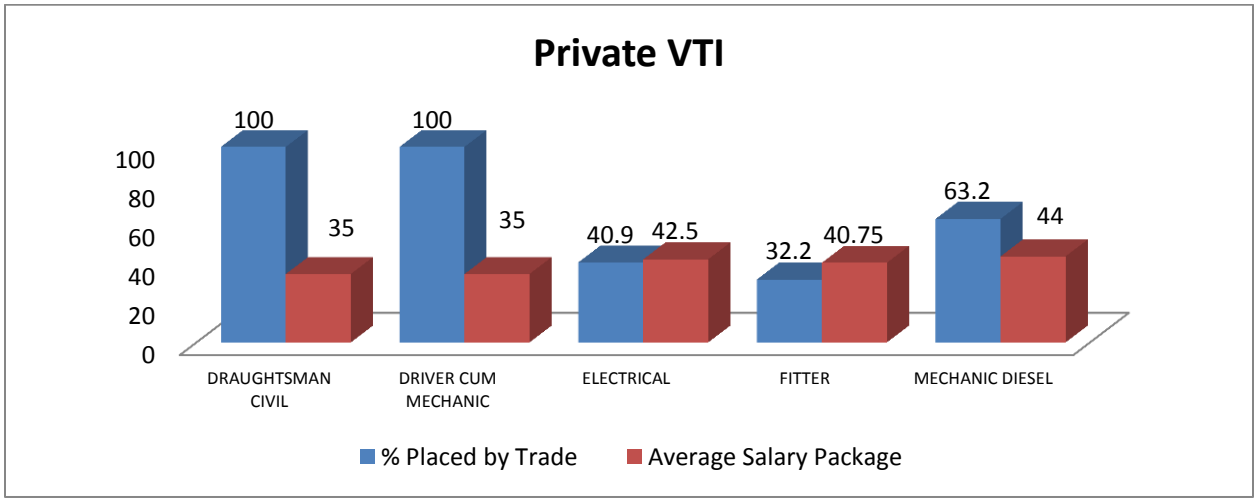


Figure 164 Courses offered placements in VTIs and average salary offered

An overview of placement records by trade in the government VTIs indicates that apart from the fitter, turner and dress making courses, all other placements are below expectations. It can also be seen that although seating capacity in the electrical trade is the highest, less than 50 percent are actually placed. In contrast, a complete batch from the turner trade got placed. Placements in private VTIs are generally strong across all trades. All the trainees from the civil draughtsman and the 'driver cum mechanic' trade got placed. Average salary per trainee indicates strong

prospects for the diesel mechanic and electrical trades in government VTIs. Trainees from the diesel mechanic trade got the highest paid jobs with average salaries of INR 6,500 per month. In private VTIs too, the highest paid jobs were for people from the diesel mechanic trade, with average salaries of INR 4,400 per month. While placements of trainees from the government VTIs is largely through campus interviews, some students got placed by proactively approaching industry. In case of private VTIs, placements take place either through the employment exchanges or by directly approaching industry. Unlike in other districts, the employment exchange is actively involved in recruitments.

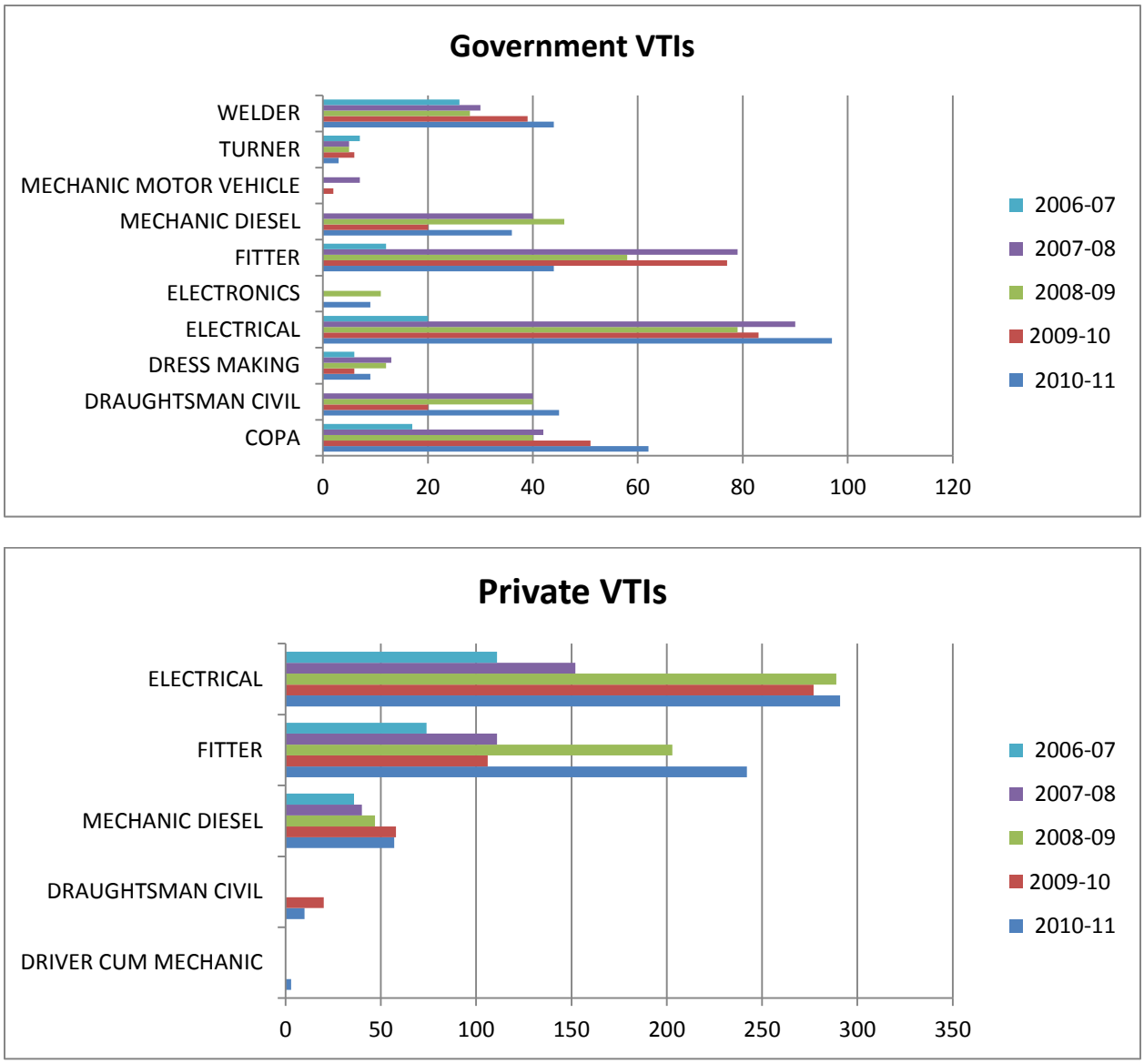


Figure 165 Year wise trainees across Government & Private VTIs

Enrollment trends at government VTIs show both increases and decreases with demand for various courses. Private VTIs have also increased the intake of trainees across all the trades except the civil draughtsman trade. Unlike in many other districts, there are few vacancies in both government and private VTIs. In Karimnagar, adequate staffing means it is easier for the institutes to function smoothly.

Government VTIs		
Positions	**Approved**	**Actual**
Managerial	28	27
Academic	46	45
Support	31	28
Private VTIs		
Positions	**Approved**	**Actual**
Managerial	17	16
Academic	62	60
Support	14	14

Table 93 Approved & Actual staff in VTI

4.9.5 Placement & Absorption Trend

Karimnagar district has two employment exchanges. The number of candidates in the live register during 2009-10 was 1, 02,927. However, only about 157 candidates were actually placed. It can be seen that the employment exchanges need to ramp up their operations and approach industry more effectively. In Karimnagar, about 79 percent of candidates get jobs through placement-linked training via private institutes with direct industrial linkages. Another 20 percent get hired through direct placements. At present, a jobseeker holding a degree or diploma, who is registered with the employment exchange, is expected to wait for a longer time than a jobseeker with an intermediate level of education.

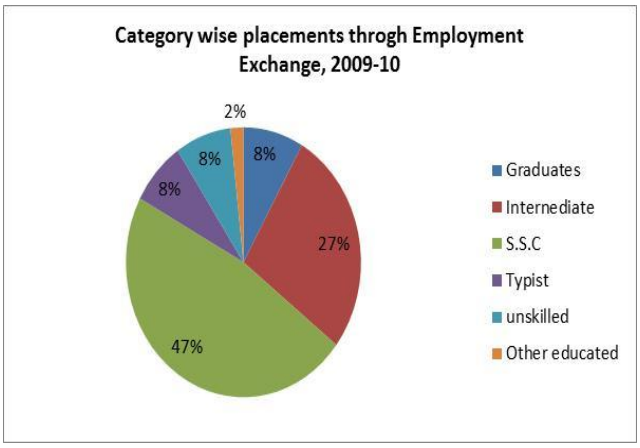


Figure 167 Category wise placements through Employment Exchange; Source: Directorate

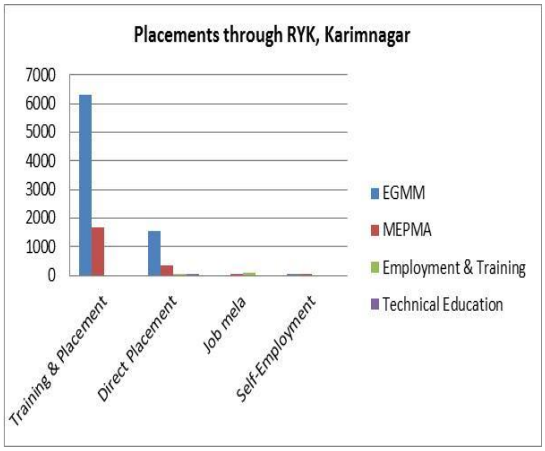


Figure 166 Placements through RYK; Source: RYK state level placements monitoring report, June 2012

4.9.6 Sector wise mapping of industries in Karimnagar

The industry sectors in Karimnagar have been mapped against the 20 high growth sectors identified by NSDC. This would necessarily factor in the concentration of small scale industries as the major parameter (due to small number of large and medium scale industries). Sector-wise analysis has been made based on labor growth projections.

Industry wise mapping					
NSDC (High growth sectors)	**Units**	**Employment**	**High**	**Medium**	**Low**
Agriculture & Allied	42	1918			
Automobile/Auto Components					
Food Processing (Food beverages & Tobacco products	538	8269			
Electronics Hardware	1	18			
Textiles & Garments	1094	7263			
IT Software					
Chemicals & pharmaceuticals	123	1126			
ITES – BPO					
Tourism, hospitality and travel	1057				
Building & Construction					
Real estate					
Healthcare	117	182			
Education/ Skill Development	19	190			
Banking/ Insurance and finance	265				
Manufacture of Wooden furniture	130	390			
Paper & Publication	10	393			
Rubber & Plastic	2	76			
Forest Based industries	600	10255			
Petroleum	2	72			
Mining & Quarrying	74	328			
Mineral Bases industries	290	2773			
Service based industries (Repairs & maintenance: R&D)	24	2363			

High	Units>200, emp>1000 - all applicable
Medium	Units>100, emp>500 - all applicable
Low	Units>10,emp>30 - all applicable

Table 94 Sector wise mapping of Industries; Source: DIC

Sector	No. of Industries Sampled
Agriculture & Allied	8
Chemical & chemical products	1
Construction Material & Building Hardware	2
Dairy(Milk) Processing & Product	2
Mines, Metals & Minerals	1
Paper Based	2
Power Generation	3
Stone Querying, cutting & Polishing	1
Textile & Handloom	5

Table 95 Sector wise sampled industries

A stratified sample of 25 industries was selected to help understand the present market and industrial conditions. The sample of employers consisted of functionaries from diverse industries located in the district. Some of the salient points from these interactions were as follows:

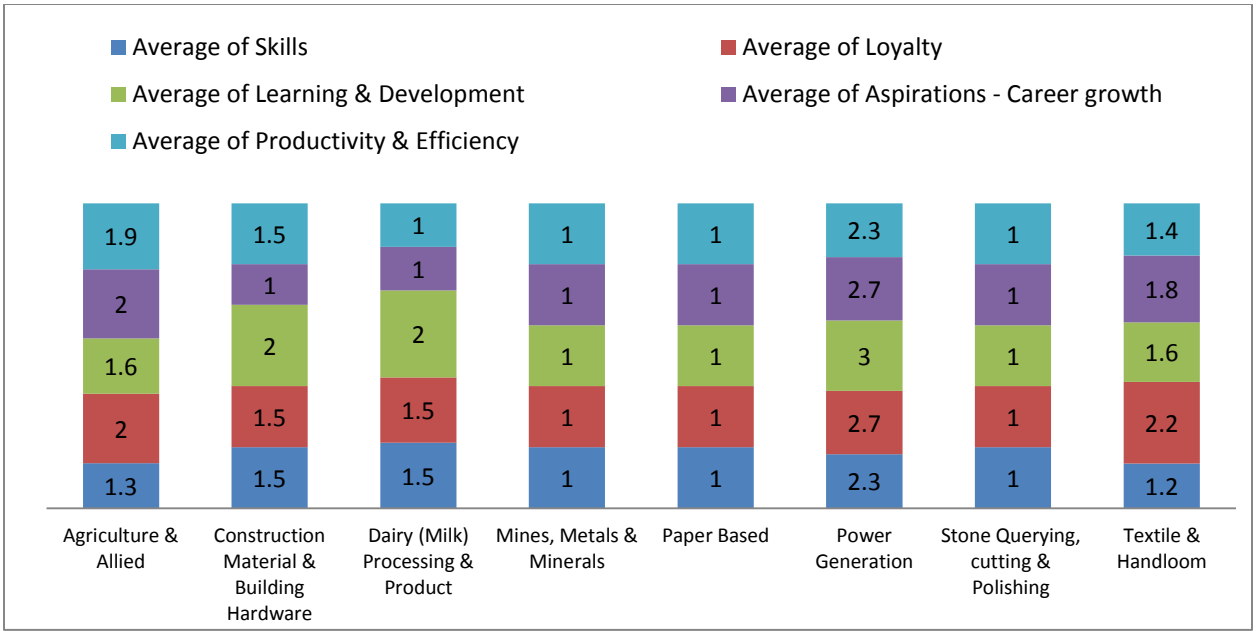


Figure 168 Employers demands in terms of expectations from workers

When the employers were asked to rate their expectation from their workers on a scale one to five, employers from the power generation sector reflected a relatively higher desire for worker characteristics across all the traits offered for ranking. Their average ratings hover between 2.3 and 3.0. Most of the employers rated between 1.0 and 2.0, indicating low levels of expectation. In the power generation sector, there was a greater desire for learning and development from workers.

4.9.7 Composition of workforce

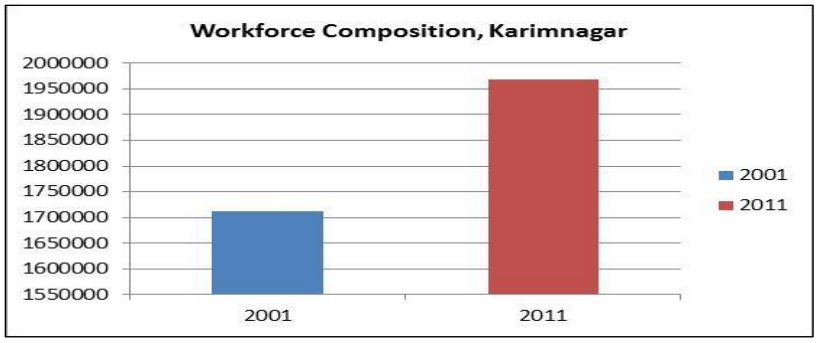


Figure 169 Projected Workforce; Source: Deputy Commissioner of Labour, 2012

According to provisional Census 2011 data, the total workforce in Karimnagar district is expected to rise by 16 percent against the 2001 data. On account of urbanization and industrialization there has been an increase in the workforce.

The proportion of workers to total population as per Census 2001 was 49 percent. In Karimnagar, a significant 51 percent of the workforce form part of the non-workers as against the main workers who constitute 41.8 percent, and marginal workers contribute 7.2 percent.As the diagram below indicates, people in the age group of 15-59 form much of the population of main workers.

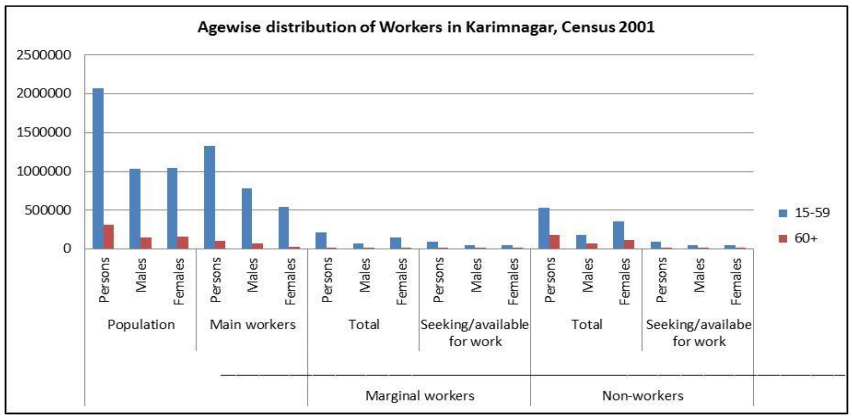


Figure 170 Age wise distribution of workers

4.9.8 Projected Workforce Demand

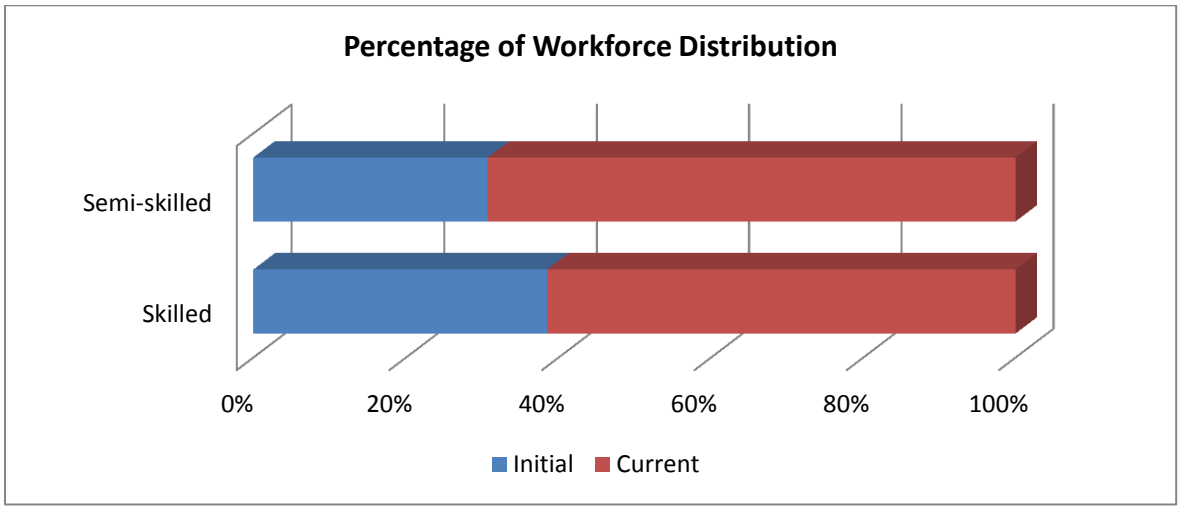


Figure 171 Workforce distributions in initial and current phase

A total of 25 industries were sampled for the survey to represent nine major sectors in Karimnagar district. Data on the numbers of skilled, semi-skilled, and minimally skilled workers was collected, recording their numbers from the time of the establishment of the industries to their present and future strengths. Thirteen of the sampled industries across three major sectors, construction, agriculture, and the power, said they hired the maximum possible number of skilled workers. Also, 22 of the sampled industries across six sectors report retention and an increase of their skilled worker strengths. However, two of the industries sampled chemicals and minerals, reported decreases in their skilled worker strengths. Except for the chemicals industry, all other have expanded their numbers of semi-skilled staff. In the minimally skilled workers category, seven out of nine different sectors report retention and an increase of their worker strengths.

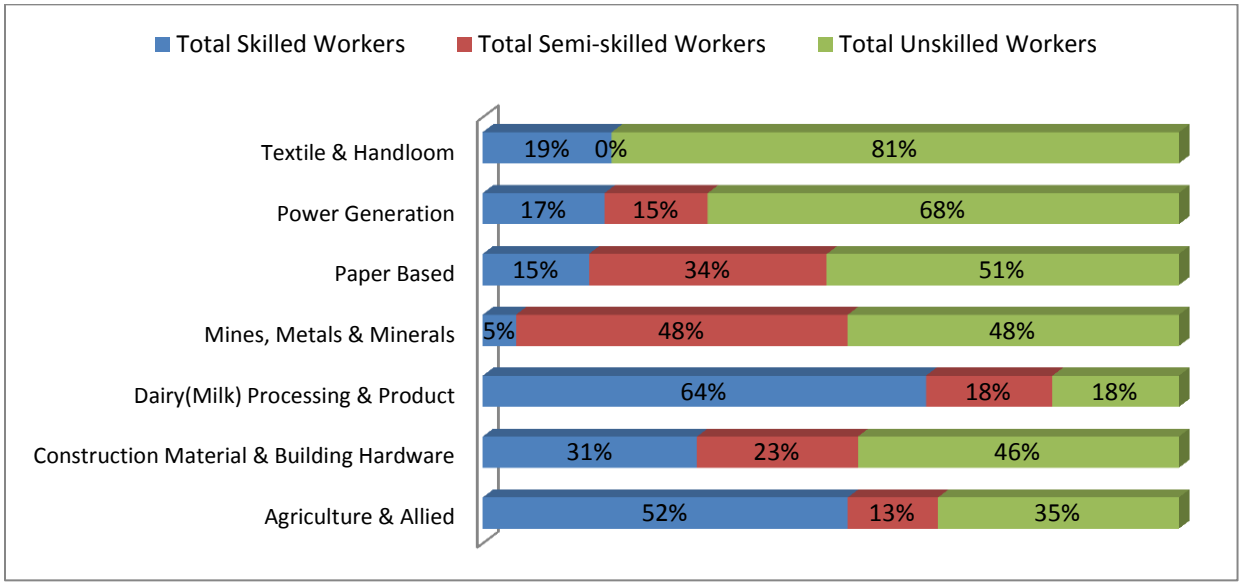


Figure 172 Sector-wise workforce distribution

Across the seven sectors represented in the sample, the proportion of minimally skilled workers is the highest, followed by skilled workers and then semi-skilled workers. The construction sector had the largest strength of semi-skilled and minimally skilled workers, followed by the power sector and then agriculture. The dairy industry had low strengths of workers in all three categories while the chemicals and mines sectors did not provide data on worker strength.

Minimally skilled workers outnumber workers from other categories followed by skilled and semi-skilled workers. The current strength of minimally skilled worker is twice that of skilled workers and thrice that of semi-skilled workers.

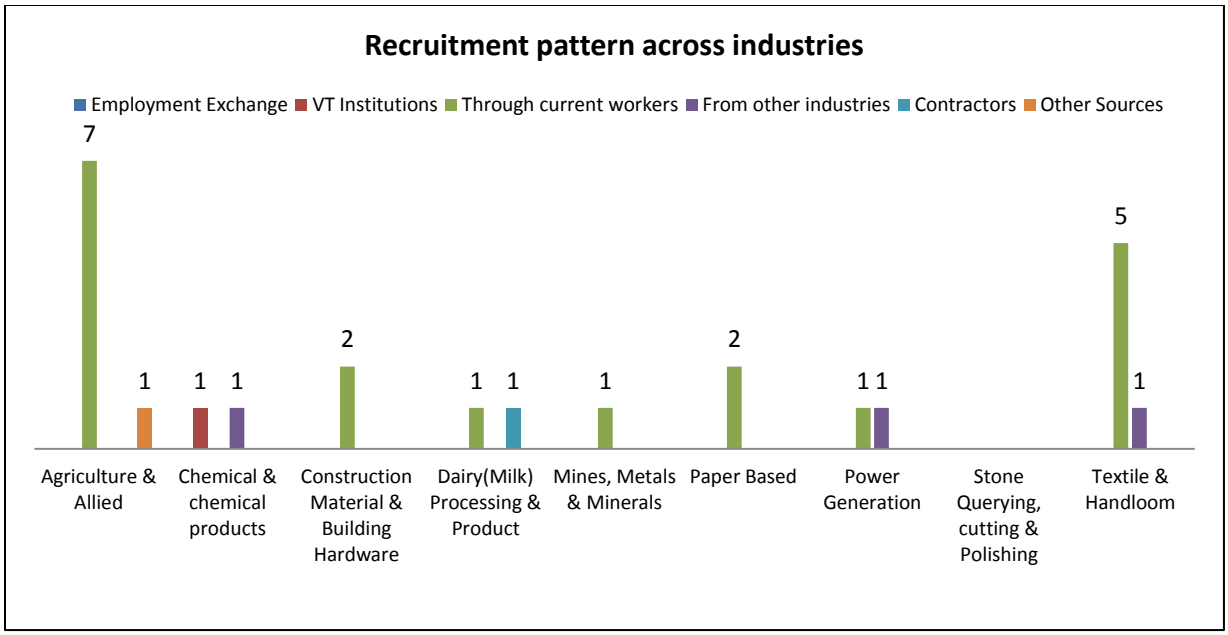


Figure 173 Recruitment pattern across industries

Most of the industries recruited through references from their current workers. Other ways of recruitment include going through contactors or poaching from other employers. Employment exchanges play little or no role. More efforts need to be put in by employment exchanges and VTIs to connect with industry.

Incremental manpower demand over the years till 2021-22

As indicated in the table below, agriculture will remain to be the largest employer of workforce till 2021-22. Other sectors with high incremental manpower demand are construction, tourism & hospitality, BFSI and IT/ITES. Manufacturing sector has registered a very negligible growth rate in the district in the past few years, due to which the demand of workforce is negative (if the trend continues then layoffs are expected).

	2012-2017			2017-2022		
Industry	**Skilled**	**Semi-Skilled**	**Minimally Skilled**	**Skilled**	**Semi-Skilled**	**Minimally Skilled**
Agriculture & Allied Activities	18677	93384	354859	19006	95029	361110
Mining & Quarrying	-4057	-8208	-5184	-8472	-6657	-9077
Construction	38488	46697	34683	39604	42433	63367
Tourism, Travel & Hospitality	106794	1113	-6871	60823	27371	18247
Transportation, Logistics, Warehousing & Packaging	-2962	-1509	-503	-4377	-2230	-743
IT & ITES Sector	9468	991	181	9910	1037	189
Banking & Financial	17175	2101	488	13320	5994	3996

	2012-2017			2017-2022		
Services Insurance						
Real estate	1972	3005	-1241	331	354	529
Other Services	14384	-7879	-7581	-3293	-1486	-979
Electricity, gas & water supply	16	9	8	16	10	7
Food processing	-15183	-9734	-5448	-15183	-9109	-6073
Chemicals & Pharmaceuticals*	111	64	48	111	67	45
Coke, refined petroleum and nuclear fuel*	69	22	47	69	41	28
Rubber and plastic products*	-33	-19	-14	-33	-20	-13
Metals & non metallic products*	1233	664	569	1233	740	493
Textile & leather	2461	1405	1056	2461	1477	985
Total	188613	122104	365096	115528	155052	432108

Table 96 Projected incremental workforce (demand) requirement till 2022 across all the sectors- Karimnagar
*Manufacturing industries

4.9.9 Skill Gap Analysis

The skill gap analysis was performed by undertaking a survey. A structured questionnaire was designed to map the current and the future skill requirements of the industries identified in Karimanagr district.

The analysis factored in industry linkages with vocational training institutes, employment exchanges and with other sources for workforce absorption. The study points to a significant mismatch between industry skill requirements and the skill pool emerging in Karimnagar.

Workforce Demand & Supply Gap						
	2012-2017			2017-2022		
Sectors	**Skilled**	**Semi-Skilled**	**Unskilled**	**Skilled**	**Semi-Skilled**	**Unskilled**
Demand	188613	122104	365096	115528	155052	432108
Supply	12217	9421	125170	3921	16598	106450
Gap	176396	112683	239926	111606	138453	325659

Table 97 Representation of incremental Skilled/ Semi-skilled & Minimally skilled workforce trend 2017-2022

Karimnagar is in its initial phase of development. The industry and service will be growing in the coming years. A major shift of manpower is expected from agriculture sector to these sectors. So the infrastructure needs to be ready for the demand to be created. The government and vocational training providers should focus on sectors such as BFSI, communications, hospitality and construction. It was also observed that the overall quality of training has a high scope of improvement in the district. Industry is of the view that training organization need to work with

industries to provide customized training solutions. Demand for semi-skilled level workers will be high over the next years.

4.9.10 Youth Aspirations

The youth survey study was primarily undertaken by using a survey. Structured questionnaires were designed to capture the aspirations of the youth across the four categories of employed, self-employed, unemployed, and trainees.

In-depth interactions were held with respondents across the various categories of youth to provide deeper insight and understanding. Out of those covered, 91.7 percent of the youth covered were college educated and 8.3 percent were high school pass outs. All the respondents were from registered government and private VTIs. Broken up, 45 percent were undergoing training at government VTIs and 55 percent studied at private VTIs.

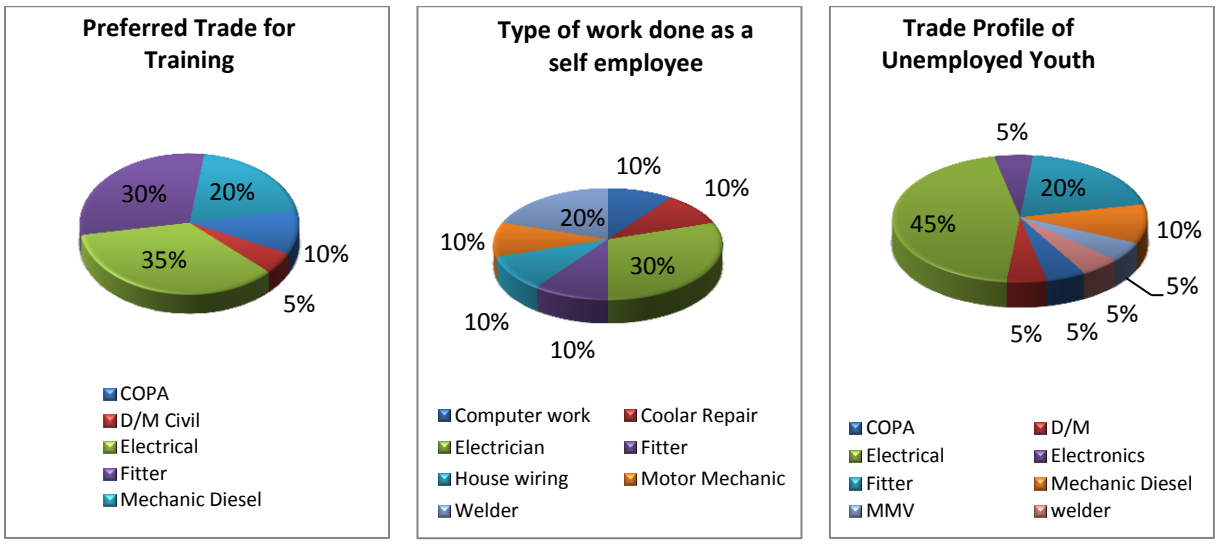
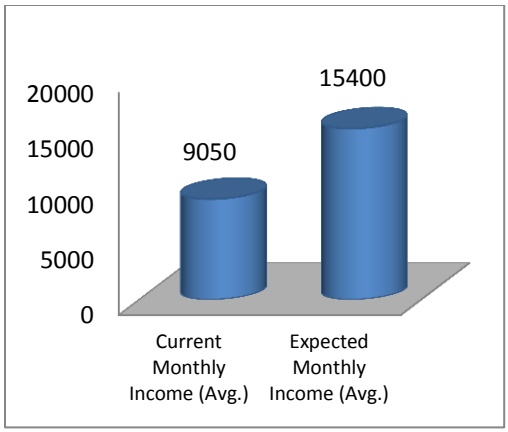


Figure 174 Profile of respondents (trainee, self-employed & unemployed youth) by trade in sample of Karimnagar

Among those surveyed, the electrical trade appears to be the most popular, with 35 percent opting for it. This was followed closely by the fitter trade with 30 percent. Out of those self-employed, 30 percent selected the electrical trade and another 20 percent chose welding. Among the unemployed, 45 percent are electricians followed by 20 percent who are fitters.

A minimum average hike of INR 6350 is expected across different trades. Majority of the respondent youth (85 percent) appear to be unsatisfied with the current remuneration received.



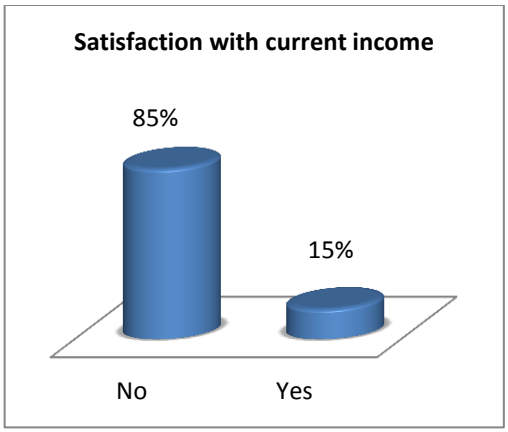


Figure 175 Salary wise expectations of youth

Parameters considered by District's youth while opting for vocational training

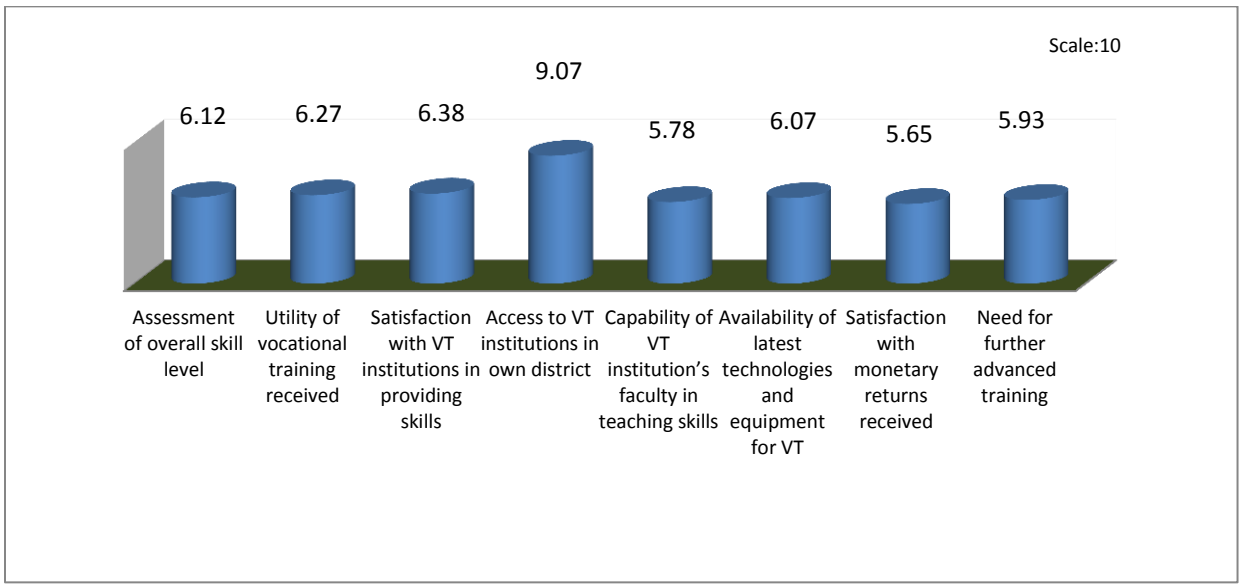


Figure 176 Karimnagar Youth's perception, need and aspirations –Sample Group

Karimnagars' youth are not satisfied with the district's VTIs. They expressed a pronounced need for greater accessibility to institutes. When asked to rate their experiences on a scal of 10, the respondents gave their lowest scores to the ability of VTIs to impart relevant skills and offer value for money. Indeed, only 15 percent of the surveyed youth were satisfied with their salaries. However, on average, the youth expected a salary hike of INR 6350.

4.9.2 Recommendations: Skill Development Eco System

Agriculture and allied activities are still at the heart of Karimnagar district. With a large number of people employed in horticulture, forest-based products, farm products, textiles etc., VTIs need to provide training in supply chain management, agricultural technologies, and export management etc. Skilled manpower is also required for sectors such as retail, hospitality and engineering industry.

Table 98 Key growth sector - Karimnagar

Sectors	Growth Opportunities
Agriculture & Allied Industries	• The sector contributed highest (58 percent) to the GDDP under primary sector. • The sector has witnessed high growth rate of 11 percent over the years from 2004-05 till 2009-10.
Construction	• The sector contributed highest to the secondary sector DDP in the district (50 percent) in 2009-10. • The sector has witnessed high growth rate of 11.6 percent over the years from 2004-05 till 2009-10.
Tourism, travel & hospitality	• Trade, hotels & restaurants witnessed a high growth rate of 10.28 percent from 2004-05 till 2009-10. • Currently, no focused courses are being offered in this sector in the district.

The key stakeholders' contribution in enabling to achieve the target would be as follows:

State: Although the state has adequate educational infrastructure, still it suffers from low literacy rates. The current courses at these institutions have failed to provide employable courses resulting in low enrolment.

Action Plan:

a) State should encourage linkages between vocational training providers and educational institutions to enable student mobility from vocational to formal education.
b) State should provide exposure to vocational training at the school level. This will also enable students to make better career choices for future.

Training Partners:

Action Plan:

a) Identify existing gaps and upgrade the existing curriculum as per industry requirements.
b) Build partnerships with the industry for better placements, post placement repayment of student fees on monthly basis.
c) Engage with the engineering based industries to provide on-the-job training. Training providers should also develop a module to identify current skill sets of the existing workers and certify them after a short term bridge course for quality assurance.

Industries: The district has a strong base of industries in engineering based and manufacturing sector.

Action Plan:

a) Provide inputs on the curriculum design and equipment to be adopted at training institutes
b) Pay placement fees to the training providers to share the cost of training.

c) Focus on certifying existing workforce through short term modular courses.

NSDC:

Action Plan:

a) Building training capacity agriculture, construction, tourism and travel & trade sectors.
b) Since a large section of workforce is engaged in unorganized sector, NSDC should focus in popularizing the Recognition of Prior Learning (RPL) system in existing vocational centres.
c) Training capacity will need to be created for engineering and hospitality based industries.

4.10 Khammam

The subsequent section highlights the economic base of Khammam district and its occupational structure. It identifies the high impact industries and skills needed to match expected growth.

The latter section represents the projected workforce demand and supply in the coming years and the optimization plan for the district.

4.10 Khammam

4.10.1 Khammam District Demographic Profile

Khammam district occupies a prominent place in India as it is famous for its coal mines. These mines are situated at Kothagudem, Yellandu, Managuru and Sathupally. Besides its coal mines, has several other industries. Some of the major companies in Khammam include Bhadrachalam Paper Board, Sponge Iron Factories, and Alloyed Steel Factory. More than half the district is forested, making it rich in flora and fauna. As per provisional Census 2011 data, Khammam accounts for a population of 2.798 million with a sex ratio of 1,010 females per 1,000 males compared to 2001 census figure of 975 females. The total area of the district is 16,029 sq.km and it accounts for 8.50% of the total area of Andhra Pradesh.

Khammam at a Glance				
Population	**Khammam District**		**Andhra Pradesh**	**Remarks**
	Provisional Census 2011	**Census 2001**	**Provisional Census 2011**	
Total Population	2798214	2578927	84665533	
Total Population - Male	1391936	1305543	42509881	
Total Population - Female	1406278	1273384	42155652	
Population Growth	8.50	16.39	11.10	
Area Sq. Km	16029		275100	
Density of Population (Density/Area sq.Km)	175	161	308	
Proportion of Andhra Pradesh population	3.31%	3.38%		
Decadal growth of population (2001 - 2011)	8.50%	16.39%	11.10%	
Literacy rate	65.46	56.89	67.66	
Male Literacy	73.20	66.11	75.56	
Female Literacy	57.85	47.44	59.74	
Sex ratio (per 1000)	1010	975	992	
Worker population participation rate	-	48.3	45.7	Census 2001
Cultivators to total workers	-	22.9	22.52	Census 2001
Agriculture laborer in workforce	-	49.2	39.64	Census 2001
Household workers	-	2.20	4.71	Census 2001
Other industry and services	-	25.8	33.13	Census 2001

Table 99 Khammam district at a glance

Khammam's population density is the second lowest in Andhra. The district is performing well in some respects, with a human development index (HDI) of 0.559, which is higher than the state average of 0.537. The urban population of Khammam made up 23.43 percent of the total population in 2011, compared to 19.81 percent in 2001. On the other hand, the district has a lower per capita income of INR 36,903 than the state's per capita income of INR 37,061 at constant prices 2004-05.
The literacy rate of Khammam in 2011 was 65.46 percent, giving it the 12th rank in the state. In 2001 its literacy rate was 56.89 percent. Gender wise, around 73.20 percent of males and 57.85 percent of females are literate.

The total workforce participation rate in Khammam district is 48.3 percent. The total male working population is 57.0 percent against the female working population of 39.50 percent. Out of the total working population, main workers comprise 40.3 percent of the total population, followed by non-workers at 51.7 percent and marginal workers at 8 percent. Out of the population of main workers, 25.99 percent are cultivators followed by 44.20 percent who are agricultural laborers, 1.97 percent who work in household industries, and 27.84 percent engaged in other industries. The data makes it evident that the majority of main workers are involved in agriculture and related activities.

4.10.2 Economic Profile

The district's Gross district domestic product (GDDP) has grown at the growth rate (CAGR) of 6.31 percent from 2004-05 till 2009-10. In 2009-10, tertiary sector contributed approx. 48 percent to the GDDP primarily due to the contribution of trade, hotels and restaurants sector followed by primary sector which contributed approx. 36 percent to the district's GDDP.

As shown in the chart below, the contribution of the primary sector has shown a very slight increase, although contribution of the tertiary sector grew by 8.25 percent from 2004-2005 till 2009-10.

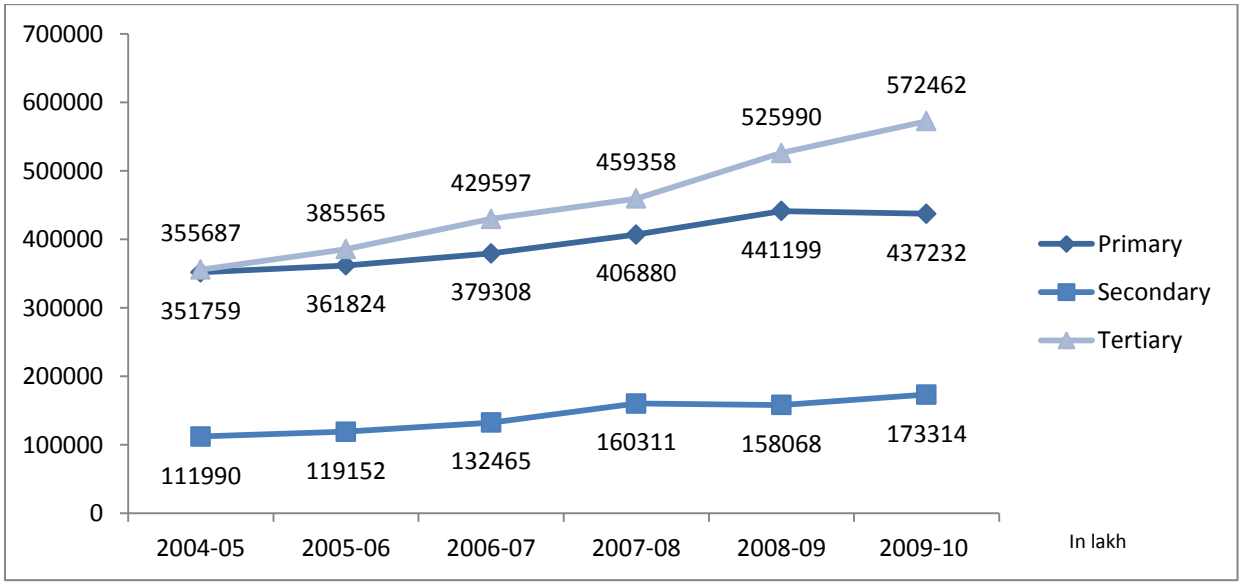


Figure 177 Sector level contribution to the GDDP, Khammam

Primary Sector

The primary sector (agriculture, forestry &logging, livestock, fishing and mining & quarrying) contributed 36.96 percent to the GDDP in 2009-10. Mining and quarrying sector remained as the highest contributor to the primary sector, contributing 41 percent to the primary sector in 2009-10, followed by agriculture (38 percent), forestry and logging (10 percent), livestock (9 percent) and fishing (2 percent).

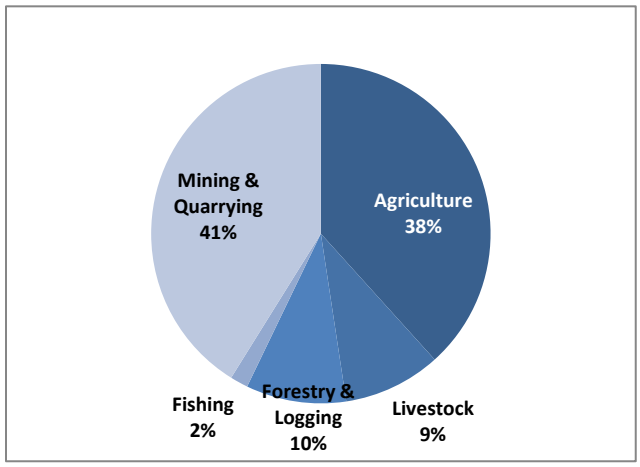


Figure 178 Primary sector contribution to GDDP, 2009-10

The CAGR for primary sector is 3.69 percent from 2004-2005 till 2009-10 with mining and quarrying registering highest growth of 5.26 percent from 2004-05 till 2009-10.

Secondary Sector

The contribution of the secondary sector to district GDP in 2009-10 was approximately 14.65 percent. The sector has shown a CAGR of 7.55 percent from 2004-05 till 2009-10, primarily due the contribution of construction sector.

The construction sector has shown an impressive CAGR from 2004-05 till 2009-10. The growth rate (CAGR) of manufacturing sector has been less with registered manufacturing units growing only by 5.46 percent and unregistered manufacturing units by 4.24 percent from 2004-05 till 2009-10.

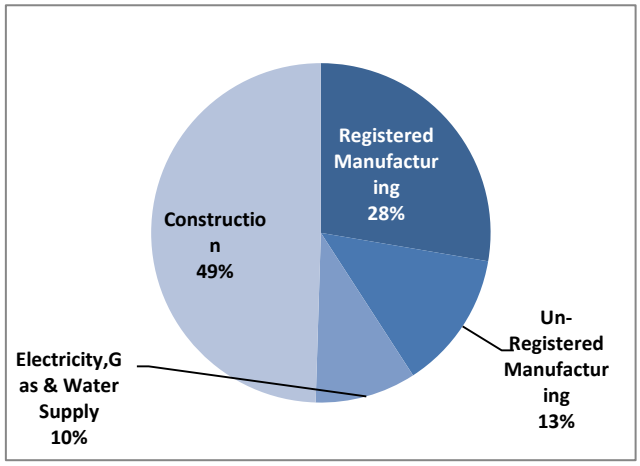


Figure 179 Secondary sector contribution to GDDP, 2009-10

Tertiary Sector

The contribution of the tertiary sector has been significant to the district's economy over the years. In the year 2009-10, the contribution of the tertiary sector was 48.39 percent to the district's GDDP. The sector has shown the highest CAGR among the three sectors of 8.25 percent from 2004-05 till 2009-10, primarily due the trade, hotels and restaurants sector.

Two sectors which have shown a high CAGR from 2004-05 till 2009-10 are

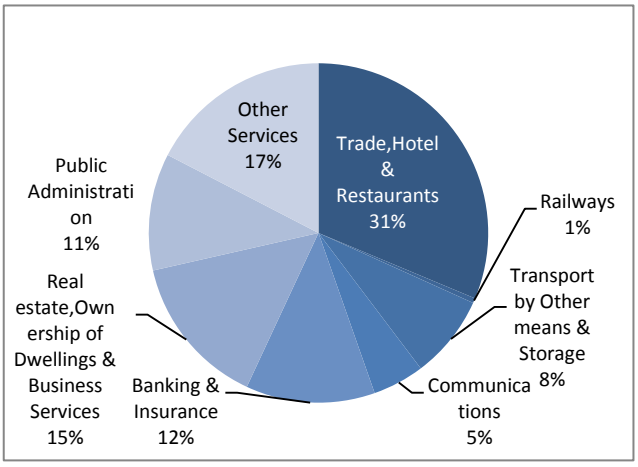


Figure 180 Tertiary sector contribution to GDDP, 2009-10

communications (14.88 percent) and BFSI (approx. 15 percent). Trade hotels and restaurants have contributed highest to the growth of the sector; it has shown a CAGR of only approx. 10.74 percent from 2004-05 till 2009-10. Real estate and other services grew by approx. 5.38 percent from 2005-05 till 2009-10.

Industry Mapping

Industry in this district contributes a very considerable 3.40 percent of GDDP at constant prices from 2004-05 to 2009-10.

The district is well connected with the state capital city Hyderabad and as well as the coastal city Visakhapatnam and the third major city in the state Vijayawada, through road and rail network. Khammam district is the hub for power generation as Kothagudem Thermal Power Station with five power generating stations. An important NTPC Power Grid is located at Budidempadu village of Khammam Urban Mandal to facilitate industrial needs in the district.

Large & Medium Industries

The district has 13 Large and medium industries with an investment of INR 4,376.00 crores. Out of 13 large and medium scale industries, the majority are mineral based. Granite tiles, slabs and monuments manufactured in the district are being exported to Japan, USA, Germany, and Singapore.

Small Scale Industries

Prominent small scale industries attracting the most investments include the agro based sector. In Khammam district agriculture and allied activities has huge potential and is an important economic activity not only in rural but also in urban area. As employment trends reveal, workforce requirements are higher in minerals based industries.

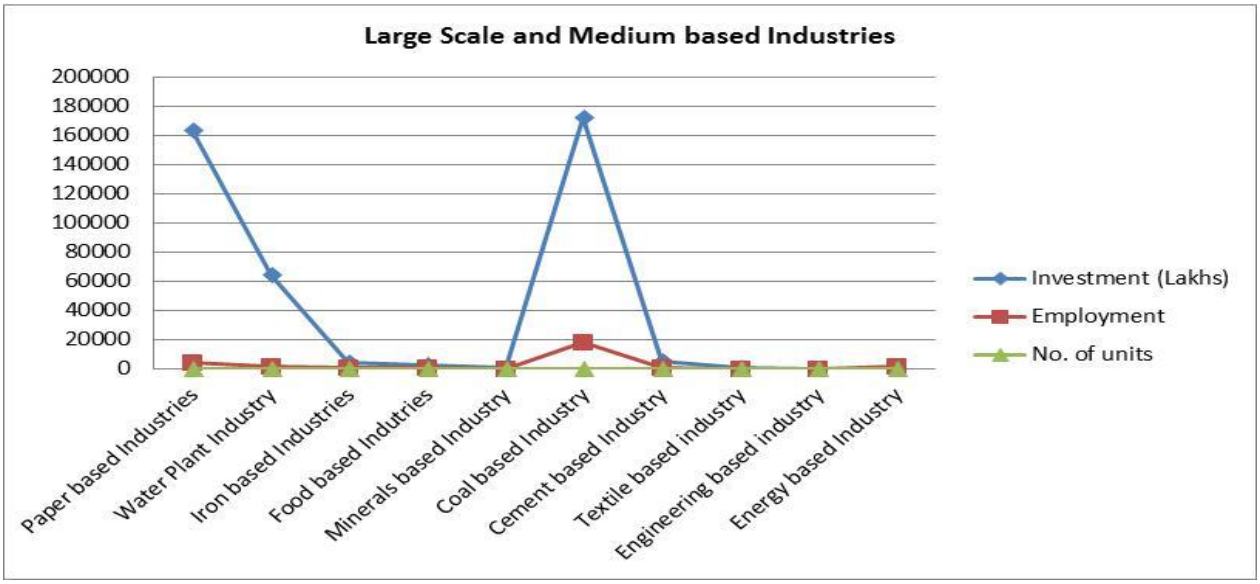


Figure 181 Large Scale & Medium scale Industries, DIC

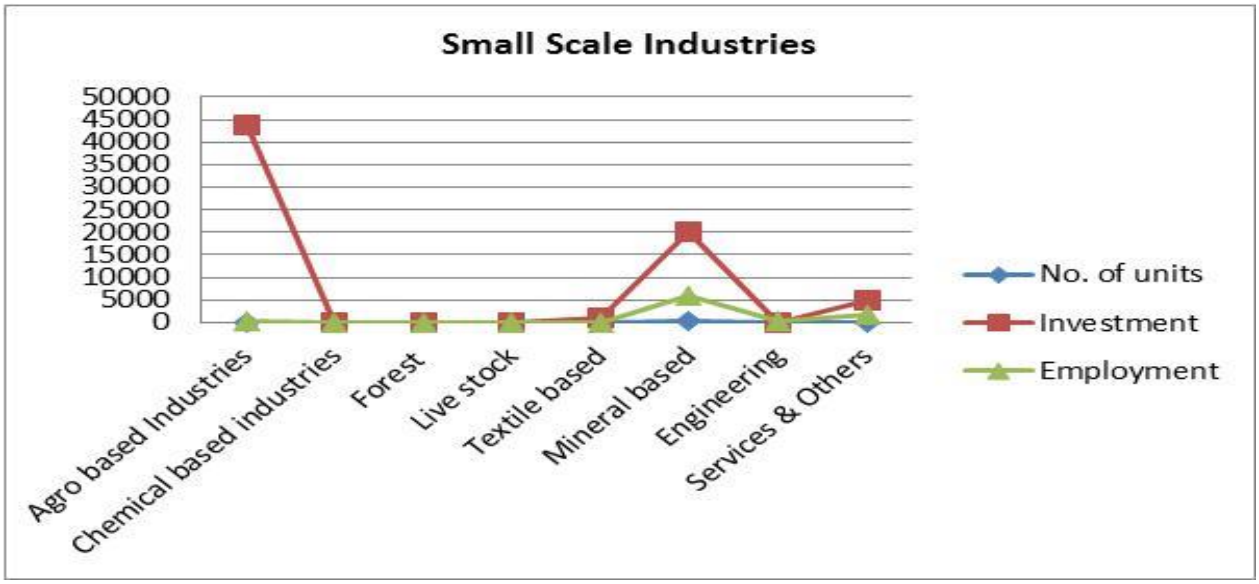


Figure 182 Small Scale Industries, Source: DIC data

4.10.3 Education Infrastructure and Utilization

Khammam's literacy rate of 65.46 percent gives it the 12th rank in the state. In 2001 its literacy rate was 56.89. Gender wise, around 73.20 percent of males and 57.85 percent of females are literates. As per the Census 2001, the total number of graduates and above in Khammam district is 72,950. It is interesting to note that out of the total population of graduates and above, 74 percent were male. Khammam's graduates made up 2.58 percent of Andhra Pradesh's total graduates.

Khammam also faces the challenges of keeping its children enrolled in school. The gross enrolment ratio for classes I-V is 99.25 percent, followed by 89.59 percent for classes VI–VIII, and 73.29 percent for classes VIII–X. In comparison, the state's ratios are 100.46 percent, 84.76 percent, and 69.51 percent respectively.

Primary Schools	**2714**	**177287**
Upper Primary Schools	625	77207
Secondary Schools	664	193073
Higher Secondary Schools	2	1228

Table 100 Schools with enrollment details Source: Statistical Abstract, Andhra Pradesh - 2011

The dropout rates establish an increasing trend of 40.92 percent over classes I-X. Khammam needs more emphasis on quality of education while providing incentives to the best teachers, and developing better facilities and incentives for students.

For technical education, there are total 24 engineering colleges, out of which only one is a government college and the rest are private engineering colleges. These engineering colleges offer various courses and have a combined intake capacity of approximately 5,905 students per year. Major courses offered include, electronics and telecom engineering, computer science and

engineering, electrical and electronics engineering, mechanical engineering, and instrumentation. Khammam also has 10 polytechnic colleges with a total intake capacity of 2,460 students per annum.

Educational Institutions	Total Number
ITIs	8
Polytechnics	10
Engineering Colleges	24
Medical/nurses Colleges	1
Pharmacy Colleges	10

Table 101 Education Statistics; Source: Statistical Abstract, Andhra Pradesh – 2011

4.10.4 VTI's demand across various trades in Khammam district

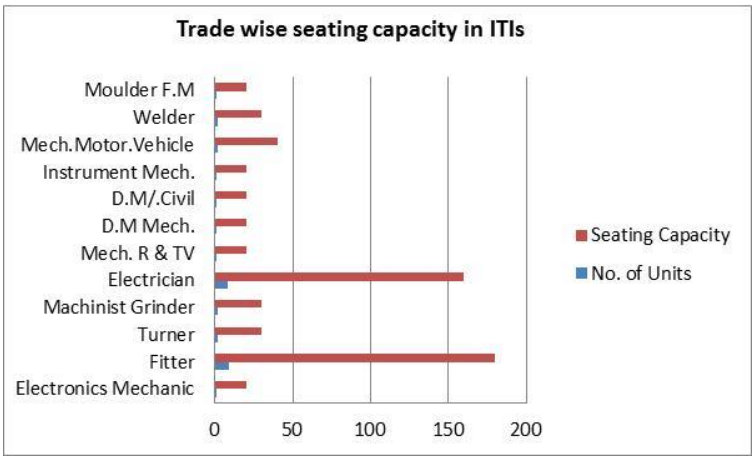


Figure 183 Trade wise seating capacity in ITIs

There are eight vocational training institutes in the district. The overall intake of all the ITIs and ITCs is around 1,625 students per annum. Out of these vocational training institutes, only one is a government ITI and the rest are private ITCs. These institutes impart training in various trades like those for electricians, fitters, diesel mechanics, plumbers, welders, instrument mechanics, data preparation and computer software programming, computer operator and programming assistant, civil draughtsman, dressmakers, foundry men, masons, tractor mechanics, radio and television mechanics, and turners. New trades are introduced in the ITIs and ITCs based on emerging demand. All the trades and units are permanently affiliated to National Council of Vocational Training of Director General of Employment and Training.

For the survey, three government VTI and seven private ones were selected. The government VTIs sampled for the study offer 13 different trades for training while the private VTIs offer eight trades. The fitter trade appears to be the most popular in government VTIs. In private VTIs, the electrical trade was most popular with a total of 1,120 seats on offer. While there are unfilled seats across several courses, gaps were especially significant in government VTIs for the automobile and diesel mechanic trades. However, mechanic diesel trade in private VTIs was completely occupied.

Government VTI Trades		Private VTI Trades
Basic Fitting	Mechanic Diesel	DM/CIVIL
COE(Automobile)	R&TV	Electrical
Computer	Turner	Fitter
COPA	Welder	H.S.I.
DM/CIVIL	Instrument Mechanic	Mechanic Diesel
Electrical	Machinist	Plumber
Fitter		R & AC
		Welder

Figure 184 Trades offered by sample VTIs

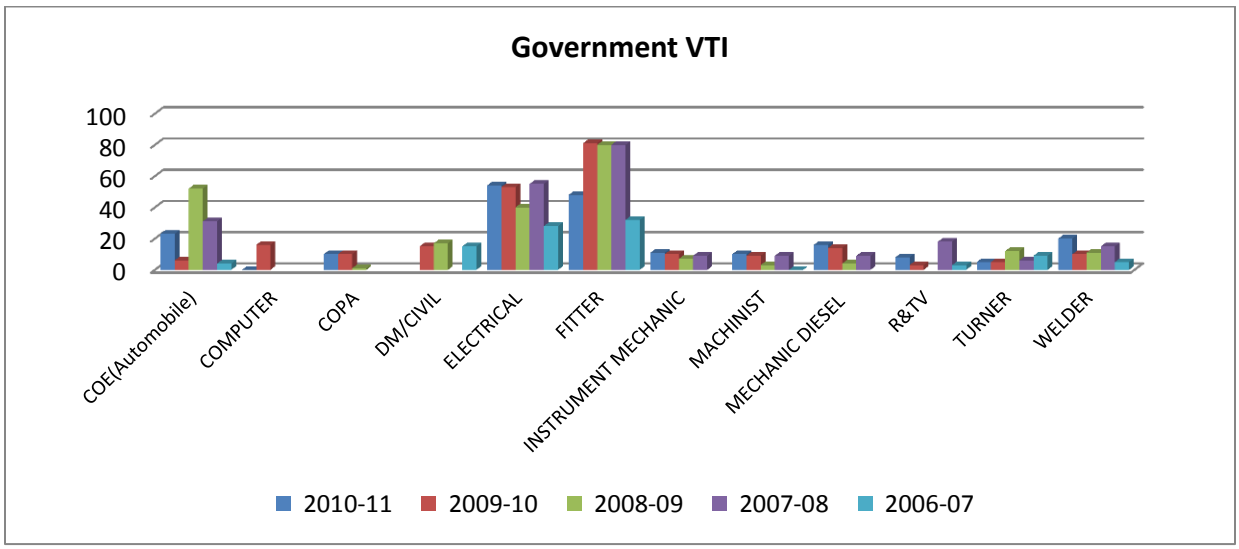


Figure 185 Number of seats occupied over the past years in Government ITIs

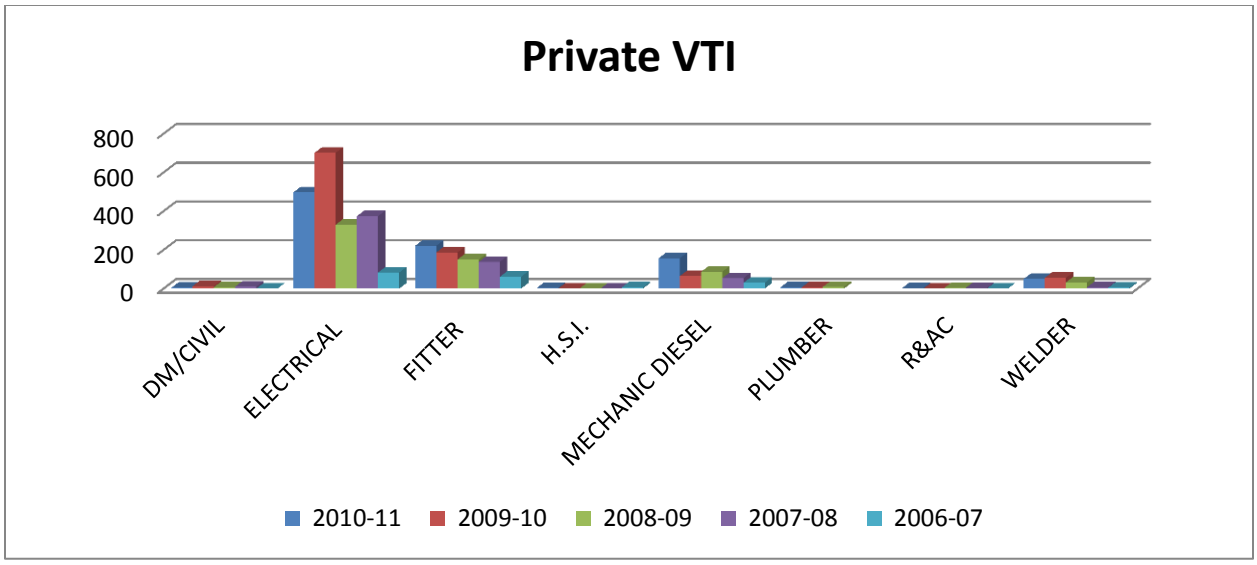


Figure 186 Number of seats occupied over the past years in Private VTIs

The trends across all the trades show an increase and decreased demand from the data on number of trainees by trade over time in Government as well as private VTIs over the years. Government VTIs have not shown any great increase in intake of trainees across all trade. In Private VTIs, Fitter trade increases their intake continuously over the time period.

	Positions	Approved	Actual
Government VTIs	Managerial	18	16
	Academic	41	20
	Support	10	10
Private VTIs			
	Managerial	17	16
	Academic	102	98
	Support	35	35

Understaffing poses a major problem for government VTIs. In Khammam, there is a serious lack of academic staff, which can hamper the functioning of the institutes. Vacancies in private VTIs are minimal.

Table 102 Approved & Actual Staff in VTIs

4.10.5 Placement & Absorption Trend

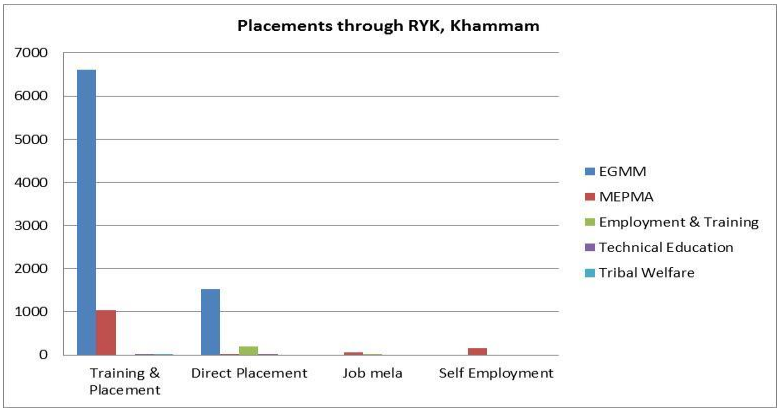


Figure 187 Placements through RYK; Source: RYK state level placements monitoring report,June 2012

The placement of candidates seeking job opportunities available within and outside the district is done either through registering with the employment exchange, or through the Rajiv Yuva Kiranalu mission, which focuses on helping educated youth find jobs. However, as the diagram shows, most candidates are either absorbed by private institutes with direct industrial linkages or through direct placements by industries. The Job Mela organized at the district level as a part of the ongoing Rajiv Yuva Kiranalu, has recorded only a few placements over the last few years. Khammam district has two employment exchanges. The number of candidate names in the live register during 2009-10 was 83,167. However, only about 10 students were actually placed. However, performance of the employment exchange regarding placements and absorption is very poor and hardly any placements have taken through the employment exchanges.

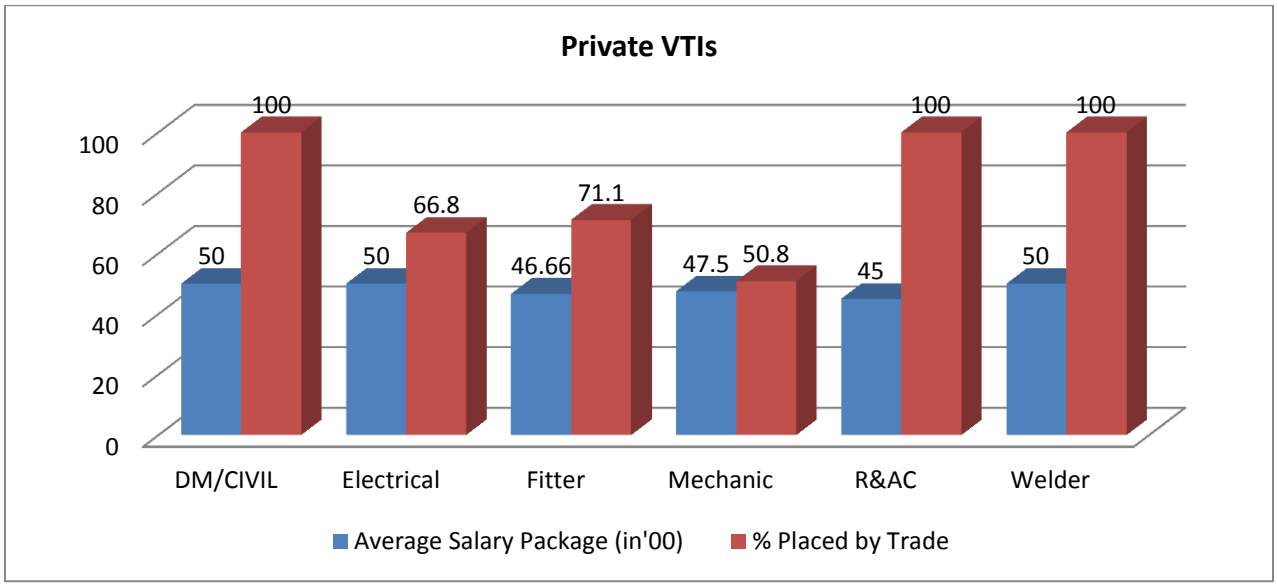


Figure 188 VTIs with placement percentage and average salary across trades

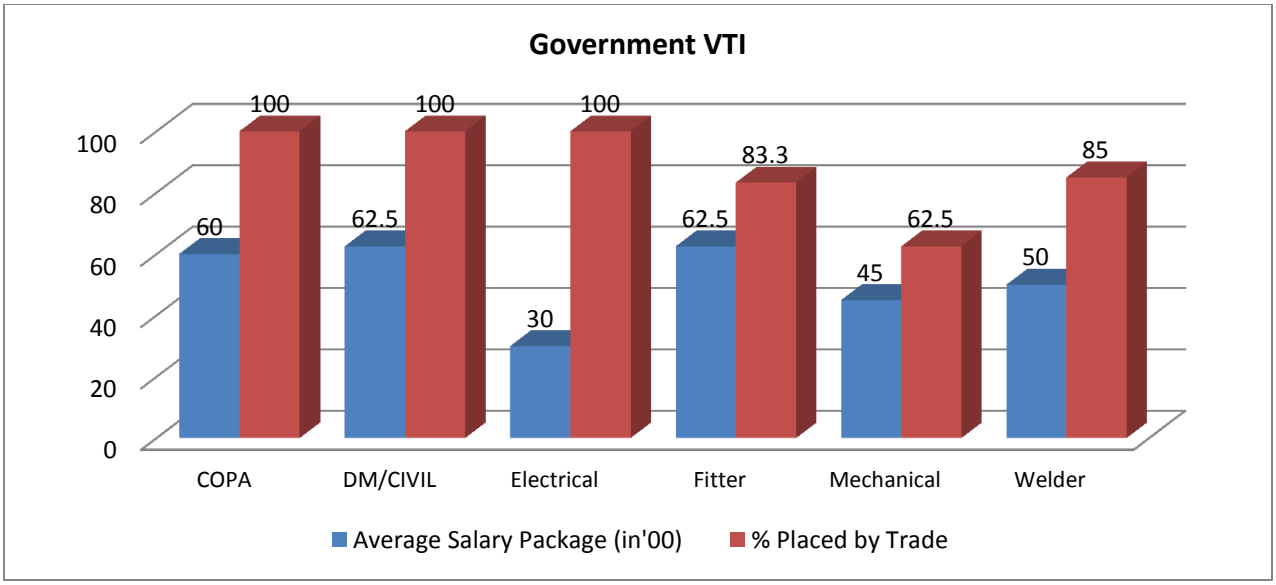


Figure 189 VTIs with placement percentage and average salary across trades

An overview of placement records by trade in the Government VTIs indicates average prospects in all most all of the trades. Placements in private VTIs are good across all trades except 3 trades. Average salary/trainee indicates towards good prospect in all most all the trades in government VTIs. Trainees from all the trades got the highest paid job (Rs. 7,000/Month). In case of private VTIs the average salary was reported (Rs 4,819/Month). All placements of trainees from the Government VTIs are through campus interviews. In case of Private VTIs as well, Placements' is more through campus interview. It seems that Employment exchanges are playing a vital role in placements in Private VTIs.

4.10.6 Sector wise mapping of industries in Khammam

The industry sector in Khammam district is fast becoming a major growth center of the district. The industry sector for investments is also catching up, with a huge demand of workforce in the various sectors. Looking at the trend in the table below, it is pertinent to note that energy and minerals-based industries would be the prime movers of development in Khammam district in the near future and would provide significant employment opportunities for the workforce across the skilled, semi-skilled and minimally skilled categories.

Industry wise Sector Mapping					
NSDC (High growth sectors)	**Units**	**Employment**	**High**	**Medium**	**Low**
Agriculture and Allied	6	77			
Food Processing (Food beverages and Tobacco products)	413	2015			
Electronics Hardware	13	142			
Tourism, Hospitality and Travel	72				
Chemicals and Pharmaceuticals	9	190			
Transportation/Logistics/Warehousing and Packaging	19	380			
Healthcare	81	138			

Industry wise Sector Mapping						
Education/ Skill Development	11	112				
Banking/ Insurance and Finance	246					
Manufacture of Wooden furniture	81	216				
Paper and Publication	21	4787				
Energy based industry	3	1625				
Iron and Steel industry						
Minerals based industries	573	6350				
Service based industries (Repairs & maintenance: R&D)	17	3651				
High	Units>200, emp>1000 - all applicable					
Medium	Units>100, emp>500 - all applicable					
Low	Units>10,emp>30 - all applicable					

Table 103 Sector wise mapping of Industries; Source: DIC

Khammam is one of the renowned districts in India with prominent power stations for generating and transmitting electricity. There is a huge scope for establishing agro-based industries, paper printing, energy, and minerals based industries. There has been marginal trend indicating greater workforce demand from emerging sectors like the wood and paper printing industries. Some of the leading players in the district are Singarenni Collieries, Kothagudem Thermal Power Plant, ITC's Bhadrachalam Paperboards, and Jagati Publications.

4.10.7 Composition of workforce

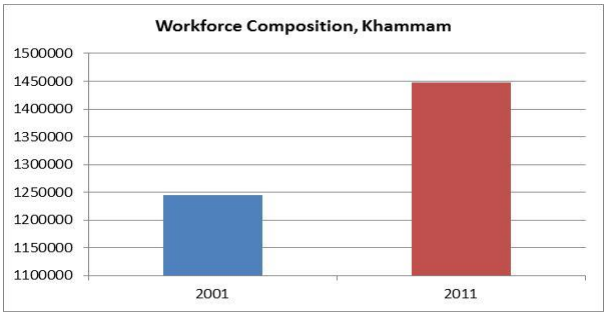


Figure 190 Projected Workforce; Source: Deputy Commissioner of Labour, 2012

The working population in Khammam district is expected to rise by 16 percent against the 2001 data. The major workforce participation observed in Khammam district over a period of two decades has shown that the workers' population in the district indicates that agricultural labors dominate the total working population.

It is pertinent to note that the total workforce participation rate is 48.3 percent. The total male working population stands at 57.0 percent against the female working population of 39.50 percent. It is observed that the female workforce participation rate is much lower than their male counterparts.

Out of the total working population, the main worker population comprises 40.3 percent of the total population followed by marginal workers at 8 percent and non-workers at 51.7 percent.

Out of the population of main workers, 25.99 percent are cultivators followed by the 44.20 percent who are agricultural laborers, the 1.97 percent in household industries, and 27.84 percent who are engaged in other industries. However, out of the marginal population, 62.62 percent are agricultural labor.

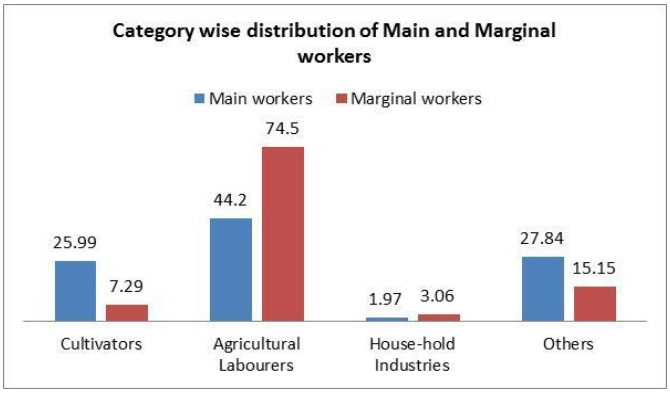


Figure 191 Category wise distribution of main and marginal workers; Source Census 2001

It has been estimated that the major proportion of workers in the age group of 15-59 years fall into the main workers category. Interestingly, among non-workers and marginal workers, females in the age group 15-59 outnumber males.

4.10.8 Projected Workforce Demand

This section looks at the projected workforce demand of the district across industries. The table below shows the incremental manpower demand across various sectors over the years till 2022. Primary sector, although contributing approx. 36 percent to the GDDP in 2009-10 but the growth has been negligible at CAGR 3.6 percent. Growth in the construction sector is expected to be high in the district. A large migration will be witnessed from primary sector to other sectors especially construction and tertiary sector. Both construction and services will need skilled manpower to meet their growth requirements.

	2012-2017			2012-2022		
Industry	**Skilled**	**Semi-Skilled**	**Minimally Skilled**	**Skilled**	**Semi-Skilled**	**Minimally Skilled**
Agriculture & Allied Activities	-1028	-5139	-19529	-5734	-28672	-108953
Mining & Quarrying	3570	-2598	2925	236	186	253
Construction	27764	33592	25479	28866	30928	46185
Tourism, Travel & Hospitality	90063	2218	-4735	53325	23996	15997
Transportation, Logistics, Warehousing & Packaging	2043	1041	347	1490	759	253
IT & ITES Sector	9156	959	175	9657	1011	184
Banking & Financial Services Insurance	16196	2154	603	12864	5789	3859
Real estate	1934	2773	-361	779	835	1246
Other Services	13560	-6618	-6483	-1951	-878	-585
Food processing	-563	-386	-176	-563	-338	-225
Chemicals & Pharmaceuticals*	-4	-16	12	-4	-2	-2

Metals & non metallic products*	-6891	-4127	-2764	-6891	-4135	-2757
Wood & Paper products	905	337	568	905	543	362
Total	156705	24189	-3941	92981	30022	-44180
Agriculture & Allied Activities	-1028	-5139	-19529	-5734	-28672	-108953
Mining & Quarrying	3570	-2598	2925	236	186	253

Table 104 Incremental manpower demand across various sectors till 2022 in Khammam
*Manufacturing sectors

4.10.9 Skill Gap Analysis

The skill gap analysis was performed by undertaking a primary research on the employers through the survey instrument. A structured questionnaire was designed to map the current and the future skill requirements of the industries identified based on manpower absorption and production in high growth industries. The analysis factored in industry linkages with vocational training institutes, the employment exchange and with other sources of workforce absorption and retention. It highlights a significant mismatch between industry skill requirements and the skill pool emerging. The skill gap estimate for the district for 2012-17 and 2017-22 is based on projections presented in the table below.

Incremental workforce Demand & Supply Gap						
	2012-2017			2017-2022		
Sectors	**Skilled**	**Semi-Skilled**	**Unskilled**	**Skilled**	**Semi-Skilled**	**Unskilled**
Demand	156705	24189	-3941	92981	30022	-44180
Supply	11479	9214	132126	5890	15290	128689
Gap	145226	14975	-136066	87091	14733	-172869

Table 105 Representation of projected Skilled/ Semi-skilled & Minimally skilled workforce trend 2010-2022

The district will require more skilled and semi-skilled people in sectors such as BFSI, hospitality, construction etc. More focus is required to increase the current capacity of training keeping the industrial requirement in mind.

4.10.10 Youth Aspirations

The youth survey study was primarily undertaken through a survey instrument, which used structured questionnaires designed to capture youth aspirations and perceptions. The survey covered candidates across the categories of employed, self-employed, unemployed and trainees. Interviews were held with students and focus group discussions were organized.

Out of those surveyed, only 7.7 percent were college educated and the remaining 92.3 percent had completed high school education. All the respondents were from registered VTIs. Out of the respondents who were trainees, all were from private VTIs.

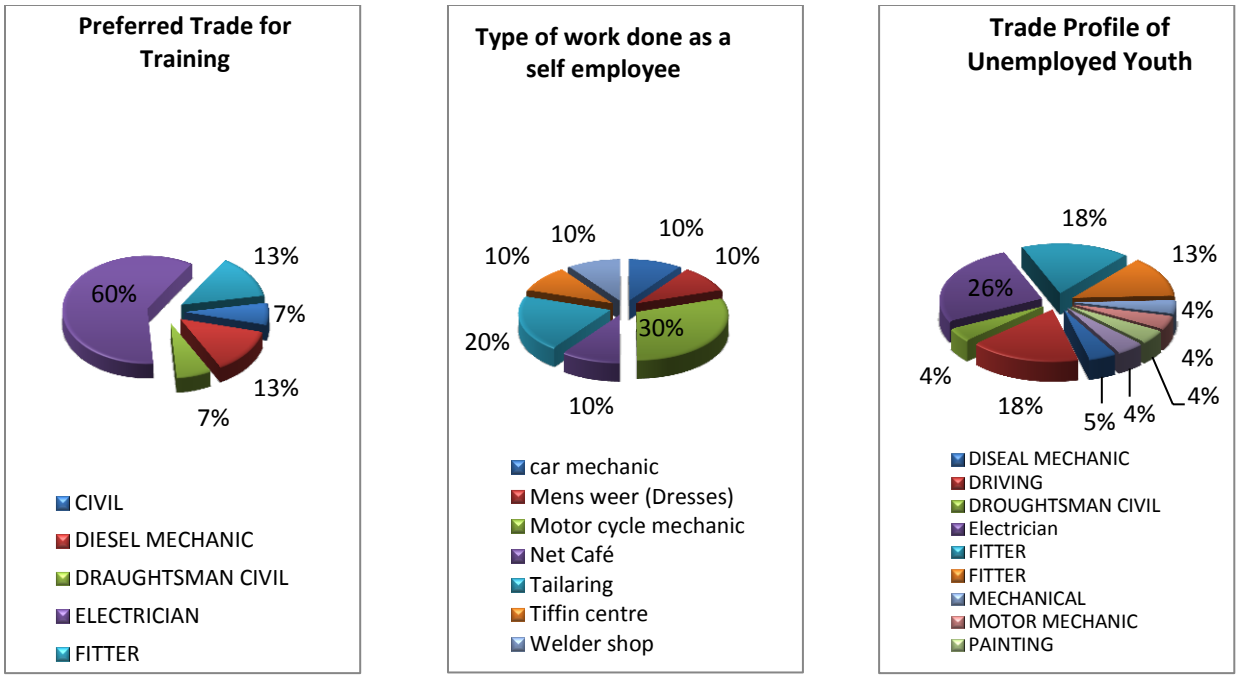


Figure 192 Profile of respondents (trainee, self-employed & unemployed youth) by trade in sample

Respondents in the survey were asked to name their trade preferences, Out of the total, 60 percent of the candidates chose the electricians course. This was followed by the diesel mechanic and fitter trades, with 13 percent opting for either of them.

Out of those self-employed, 30 percent are motorcycle mechanics and 20 percent are tailors. Among the unemployed respondents, 26 percent chose the electric trade followed by 18 percent each for driving and fitter trades.

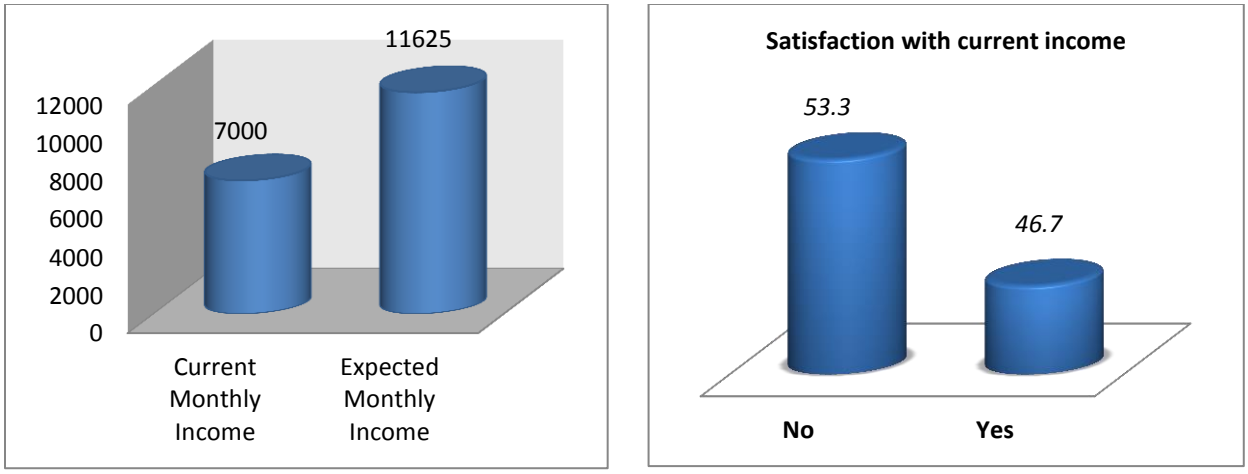


Figure 193 Salary wise youth aspirations in Khammam district

Only 46.7 percent of the respondent youth appear to be satisfied with the current remuneration received. A minimum average hike of INR452 is expected across different trades.

Parameters considered by District's youth while opting for vocational training

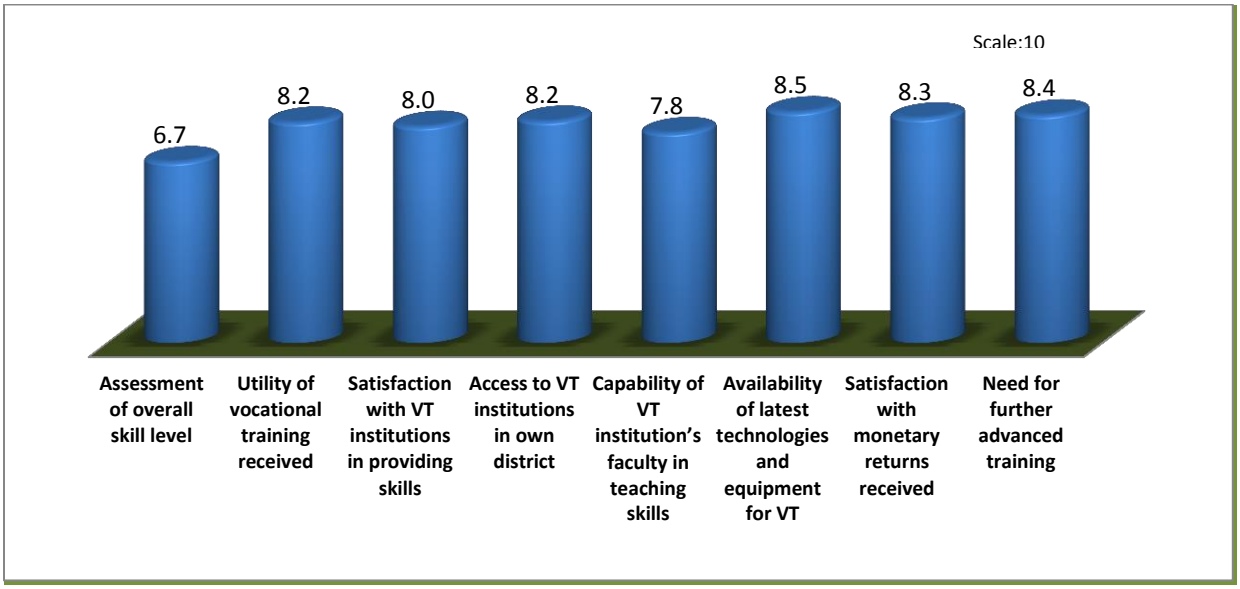


Figure 194 Youth expectations in the district, Primary survey

The candidates were asked to rate their experiences with VTIs on a scale of 10. They gave the highest rating to the availability of the latest technologies, awarding it a score of 8.5. However, their assessment of their overall skill level gets the lowest rating of 6.7 on a scale of 10. The respondents also showed high interest in further training, by rating the 'need for further training' at 8.4 on the scale of 10. Only 46.7 percent of the youth were satisfied with their current salaries, expecting a minimum hike of INR 4520. That is despite the fact that 90.9 percent of those surveyed have not received any annual increment.

4.10.11 Recommendations: Skill development ecosystem

The district is expected to see major growth in the construction, tourism & hospitality, BFSI, transportation and logistics sector. However, current skill sets do not match industry requirements. Training institutes need to collaborate with industries to deliver customized training programmes. There is also much scope for entrepreneurship development programs in the agro and SME sectors.

Sectors	Growth Opportunities
Construction	• The sector contributed highest (49 percent) under secondary sector in the DDP during 2009-10. • In terms of anticipated employment, the sector is expected to have incremental demand of approx. 1.9 lakh manpower till 2021-22
Banking & Financial services	• The sector witnessed the highest growth of approx. 15.5 percent as compared to other sector from 2004-05 till 2009-10.
Trade & hospitality	• Though several training partners have established training capacity in hospitality sector, still more courses need to be provided in trade sector.

Table 106 Key growth sectors in the district - Khammam

The key stakeholders' contribution to achieve the target would be as follows:

State: The district currently suffers from low literacy rates and poor educational infrastructure.

Action Plan:

a) Focus on up gradation on existing infrastructure of ITIs and ITCs
b) Inviting national and regional training partners to establish facilities in PPP mode in the district.
c) Map the current requirements of the industry and build training capacities on the same.
d) State should set enable career counseling session through forums or online portal for the district youth.

Training Partners: Training partners will be largely catering to coal and power based industries. Apart from this, service based industries such as construction; retail etc would also require skilled manpower.

Action Plan:

a) Collaborate with mining and power industries to provide customized training modules. This would also require mapping of existing skill sets of the workers.
b) Introduce flexible course timings for ease of students.
c) A strong placement mechanism is required for students in order to create value for money. Students would also require various options for fee payment for better access.

Industries:

Action plan:

a) Industry needs to award skilled worker with better wages. They should ensure that starting wages should cover the training cost incurred by the worker.
b) Incentivize semi-skilled employees to acquire additional skills on the job and incentivize the same through additional pay post completion of the course.
c) Establish a clear performance evaluation and appraisal system

NSDC: NSDC should focus on building training capacity in informal sector in the district. NSDC should involve industry leaders in awareness campaigns for encouraging students towards vocational training.

4.11 Krishna

This section highlights the economic base and occupational structure of Krishna district. It identifies the high-impact industries and skills needed to match the expected growth.

The latter part of this section examines the projected workforce demand and supply in the coming years and the optimization plan for the district.

4.11 Krishna

4.11.1 Krishna District Demographic Profile

Krishna is among the more developed of districts in coastal Andhra Pradesh. The district is endowed with fertile soil, rich agriculture, marine resources, and mineral wealth. The district headquarters is in Machilipatnam, a port town famous for its artificial Jewelry and Kalamkari fabrics. Vijayawada is an important railway junction and the commercial capital of the district. It has a concentration of units making automobile parts. Krishna district is also known as the rice bowl of South India.

Krishna District at a Glance				
Population	**Krishna District**		**Andhra Pradesh**	**Remarks**
	Provisional Census 2011	**Census 2001**	**Provisional Census 2011**	
Total Population	4529009	4187841	84665533	
Total Population - Male	2268312	2117401	42509881	
Total Population - Female	2260697	2070440	42155652	
Population Growth	13.22%	8.15%	11.10	
Area Sq. Km	8727		275100	
Density of Population (Density/Area sq.Km)	480	519	308	
Proportion of Andhra Pradesh population	5.35%	5.50%		
Decadal growth of population (2001 - 2011)	13.22%	8.15%	11.10%	
Literacy rate	74.37	68.85	67.66	
Male Literacy	79.13	74.39	75.56	
Female Literacy	69.62	63.19	59.74	
Sex ratio (per 1000)	978	997	992	
Worker population participation rate		44	45.7	Census 2001
Cultivators to total workers		11.4	22.52	Census 2001
Agriculture laborer in workforce		47.6	39.64	Census 2001
Household workers		2.9	4.71	Census 2001
other industry and services		38.0	33.13	Census 2001

Table 107 Krishna district at a glance

As per provisional Census 2011 data, Krishna's population is 4.529 million, with a sex ratio of 978 females per 1000 males. In the 2001 Census, the sex ratio was 997, indicating a decline in the sex ratio. The total area of the district is 8,727 sq km and accounts for 5.35 percent of the total area in Andhra Pradesh. Krishna is also the fourth highest populated district in Andhra Pradesh. The population density of Krishna district is 480 persons per sq km against the state average of 308 persons per sq km. Krishna has the third highest population density in Andhra Pradesh. The literacy rate of Krishna district in 2011 was 74.37 percent, once again, giving it the

third highest in the state. The literacy rate in 2001 was 68.85 percent. Gender wise, around 79.13 percent of males and 69.62 percent of females are literate.

The total workforce participation rate in Krishna district is 44 percent. The total male working population is 58.4 percent of the total workforce and the female working population constitutes 29.5 percent of the total. However, it is pertinent to note that the proportion of the female working population in Krishna is 5.4 percentage points lower than the state figure.

Out of the total working population, main workers comprise 37.6 percent of the total population, followed by marginal workers at 64 percent and non-workers at 56.0 percent.

Out of the population of main workers, 42.69 percent are agricultural laborers, followed by other industries at 41.74 percent, cultivators at 12.66 percent, and household industries at 2.90 percent. It is observed that a major proportion of main workers are engaged in agricultural activity and in other industries like tourism, hospitality and construction.

4.11.2 Economic Profile

The district's Gross district domestic product (GDDP) has grown at the growth rate (CAGR) of 7.28 percent from 2004-05 till 2009-10. In 2009-10, tertiary sector contributed 55.01 percent to the GDDP primarily due to the contribution of trade, hotels and restaurants sector followed by primary sector which contributed approx. 28.64 percent to the district's GDDP.

As shown in the chart below, the contribution of the primary has shown a very slight increase, although contribution of the tertiary sector grew by 8.82 percent followed by secondary sector (approx. 8.15 percent) from 2004-2005 till 2009-10.

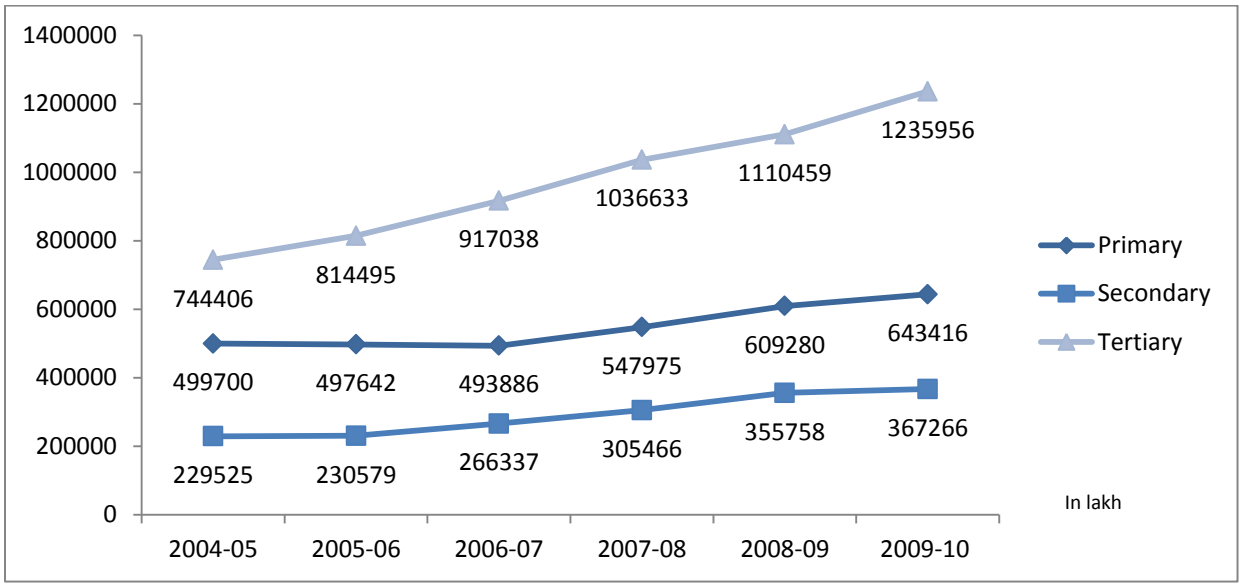


Figure 195 Sector level contribution to the GDDP, Krishna

Primary Sector

The primary sector (agriculture, forestry &logging, livestock, fishing and mining & quarrying) contributed 28.64 percent to the GDDP in 2009-10. Agriculture sector remained as the highest contributor to the primary sector, contributing approx. 38 percent to the primary sector in 2009-10, followed by fishing (37 percent), livestock (21 percent), forestry and logging (2 percent), and mining & quarrying (2 percent).

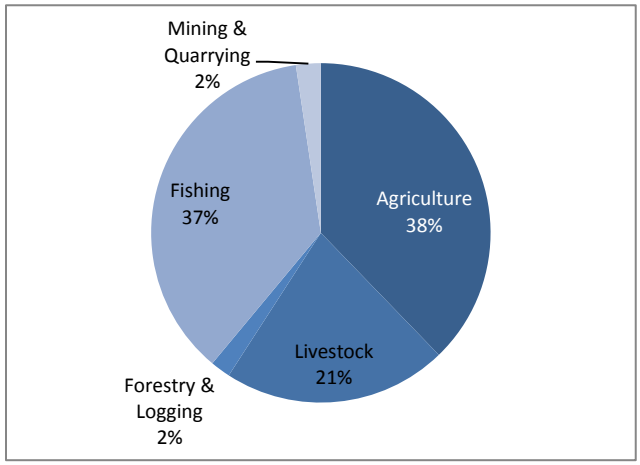


Figure 196 Primary sector contribution to GDDP, 2009-10

Secondary Sector

The contribution of the secondary sector to district GDP in 2009-10 was approximately 16.35 percent. The sector has shown a CAGR of 8.15 percent from 2004-05 till 2009-10, primarily due the contribution of construction sector.

However the growth of manufacturing sector has been impressive with registered manufacturing units growth rate(CAGR) of 8.17 percent and unregistered manufacturing units by 4.24 percent from 2004-05 till 2009-10.

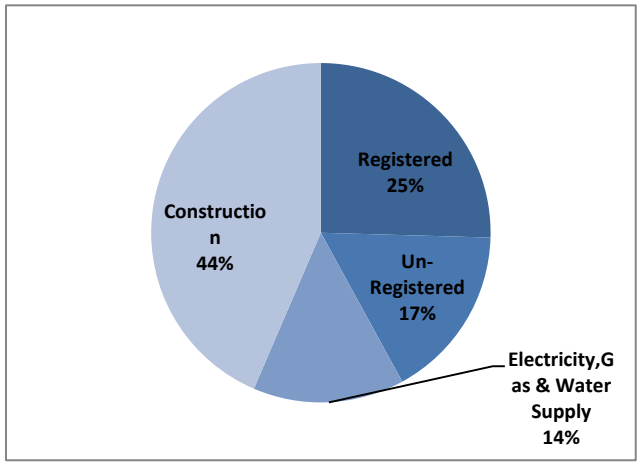


Figure 197 Secondary sector contribution to GDDP, 2009-10

Tertiary Sector

The contribution of the tertiary sector has been significant to the district's economy over the years. In the year 2009-10, the contribution of the tertiary sector was approx. 55 percent to the district's GDDP. The sector has shown the highest CAGR among the three sectors of 8.82 percent from 2004-05 till 2009-10, primarily due the trade, hotels and restaurants sector.

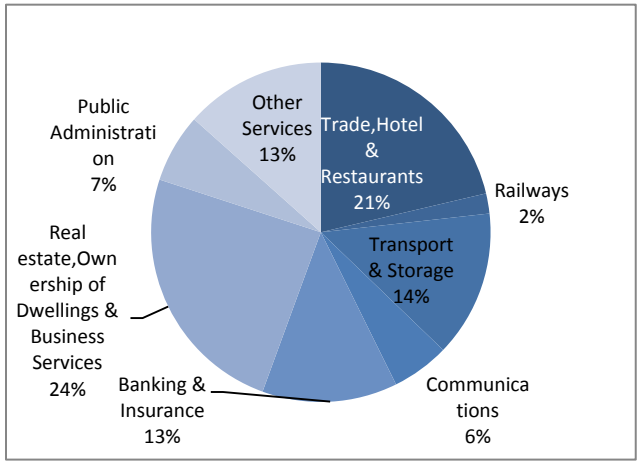


Figure 198 Tertiary sector contribution to GDDP, 2009-10

Three sectors which have shown a high CAGR from 2004-05 till 2009-10 are transport by other means & storage (11.35 percent), communications (approx. 13 percent) and BFSI (approx. 15.55 percent). Although, trade hotels and restaurants have contributed highest to the growth of the sector, but it has shown a CAGR of only approx. 7

percent from 2004-05 till 2009-10. Real estate and other services grew by approx. 9 percent from 2005-05 till 2009-10.

Industry Mapping

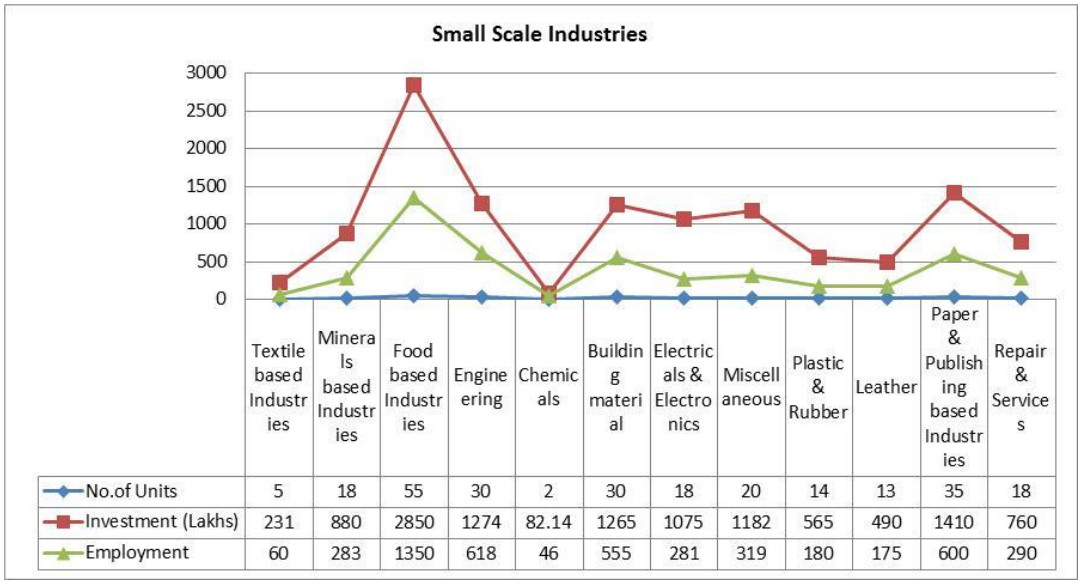
Krishna district is strategically located with a large coastline and the port town of Machilipatnam. It is also well connected with the state capital city Hyderabad via road and rail.

Large & Medium Industries

There are about 80 large and medium scale industries with investment of INR 40 billion and employment opportunities in industries like sugar, machinery, wagon repairs, granite, livestock and aqua feed manufacturing, steel and cement, LPG bottling, pharmaceuticals, automobiles, power generation, and sponge iron-based Industries.

Small Scale Industries

There are around 6,900 small scale industries in Krishna with an investment of INR 34 billion and 56,950 employees. Some of the sectors like textiles, minerals, paper, and building materials and hardware, have huge manpower requirements.



	Textile based Industries	Minerals based Industries	Food based Industries	Engineering	Chemicals	Building material	Electricals & Electronics	Miscellaneous	Plastic & Rubber	Leather	Paper & Publishing based Industries	Repair & Services
No.of Units	5	18	55	30	2	30	18	20	14	13	35	18
Investment (Lakhs)	231	880	2850	1274	82.14	1265	1075	1182	565	490	1410	760
Employment	60	283	1350	618	46	555	281	319	180	175	600	290

Figure 199 Data on Small scale industries, Source: DIC data

4.11.3 Education Infrastructure and Utilization

Krishna's literacy rate is 74.37 percent in contrast to the state-wide literacy rate of 67.66 percent. As per Census 2001, the total number of graduates and above in Krishna district was recorded 1, 77,102. It is interesting to note that out of the total population of graduates and above, 68 percent were male and 32 percent female. Krishna accounts for 6.26 percent of Andhra Pradesh's graduates. Krishna has the fourth highest number of graduates in Andhra Pradesh. Despite its high literacy rate, Krishna also faces the challenge of keeping its children enrolled in school. The gross enrolment ratio for classes I-V is 75.57 percent, followed by 67.91 percent for classes VI–VIII, and 56.82 percent for classes VIII–X. That is contrast to the state wide ratios of 100.46 percent, 84.76 percent, and 69.51 percent respectively. The dropout rates establish an increasing trend over classes I-X of 40.86 percent.

Schools	Total Number	No. of Enrollments
Primary Schools	2693	218529
Upper Primary Schools	728	94783
Secondary Schools	705	244416
Higher Secondary Schools	6	3257

Table 108 Schools with enrolment details Source: Statistical Abstract, Andhra Pradesh - 2011

Krishna has 38 engineering colleges, all of them private. These colleges offer a variety of courses and have a combined intake capacity of approximately 11,547 students per year. Krishna district recorded has the fourth highest number of engineering colleges in the state. Major courses offered include, electronics and telecom engineering, computer science engineering, electronics engineering, mechanical engineering, and instrumentation engineering. There are 15 polytechnic colleges with a total intake capacity of 5,810 students per annum. Krishna district has the highest number of polytechnic colleges in the state and the second highest number of medical colleges (11) in the state.

Educational Institutions	Total Number
ITIs	32
Polytechnics	15
Engineering Colleges	38
Medical/nurses Colleges	11
Pharmacy Colleges	12

Table 109 Education Statistics; Source: Statistical Abstract, Andhra Pradesh – 2011

4.11.4 VTI's demand across various trades in Krishna district

There are 32 vocational training institutes in Krishna district with an overall intake capacity of around 3,234 students per annum. Out of these vocational training institutes, only three are the government ITIs and the rest are private ITCs. These institutes impart training in various trades like those for electricians, fitters, diesel mechanics, plumbers, instrument mechanics, welders, carpenters, dressmakers, masons, radio and television mechanics, turners, and stenographers. New trades are introduced in the ITIs and ITCs based on emerging demand from industries. In Krishna district, there is higher demand for courses like the one for electronics. There is also strong competition for the fitter, COPA, and D/M mechanics courses.

All the trades are permanently affiliated to National Council of Vocational Training of Director General of Employment and Training.

A primary survey was conducted in the district to understand the state of skills education in the district. Six government VTIs and six private VTIs were covered in the survey. The courses on offer from both the government and private VTIs were almost similar, being predominantly engineering-based to cater to the local market needs. As a consequence there was little on offer that was oriented towards women. The details of the courses offered in Krishna district's VTIs are represented in the table below.

Government VTI Trades		Private VTI Trades
DRAUGHTMEN CIVIL	MOTOR MECHANIC	COMPUTER
DRIVING	REF A/C MECHANIC	ELECTRICIAN
ELECTRONICS	TURNER	MACHANIC DIESEL
FITTER	WELDERS	ELECTRONICS AUTO
MILL CIVIL	ELECTRICIAN	FITTER
	MECHANIC DIESEL	

Table 110 Courses offered in government and private VTIs (sample), Krishna

The government VTIs sampled for the study offer 11 different trades for training while the private VTIs offer five trades. It appears that the electrical and fitter trades are the most popular in both government and private VTIs. Government VTIs appear to have some vacancies in most trades, though especially in the fitter trade. In private VTIs, there appear to be a significant number of unfilled seats in the courses for computer operators, electricians, and fitters.

An overview of placement records by trade in the government VTIs indicates stronger prospects in almost all of the trades with the exceptions of the electronics and mill civil trades. In private VTIs the situation was much worse, as no students got placed from college. Average salary per trainee indicates moderate prospects in the electrical, fitter and A/C mechanic trades in government VTIs. Trainees from the A/C mechanic course got average pays of about INR 4,000 per month.

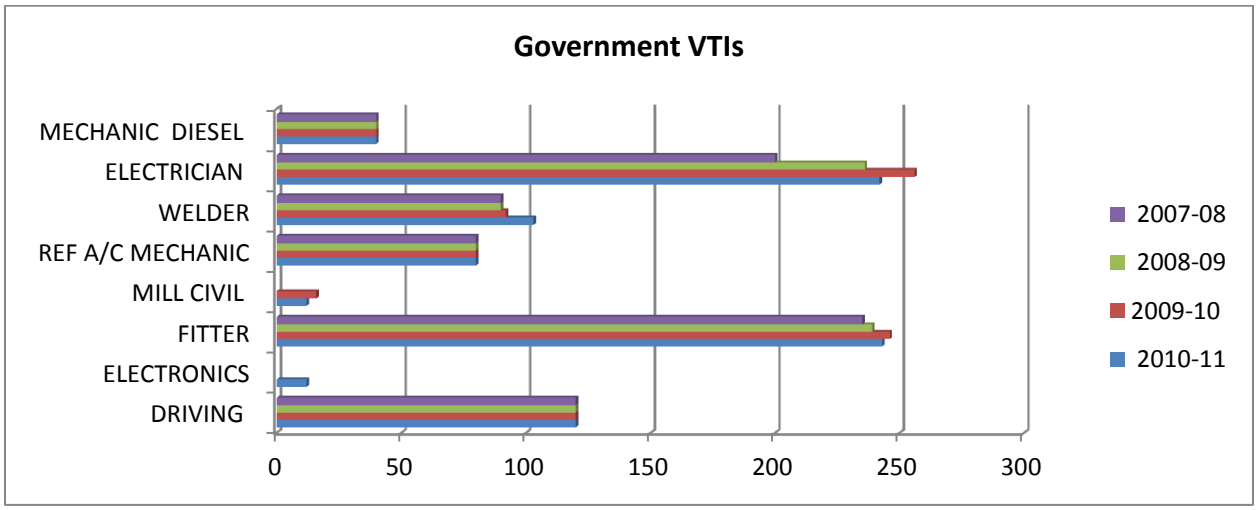


Figure 200 Trends of trained youths across trades over years

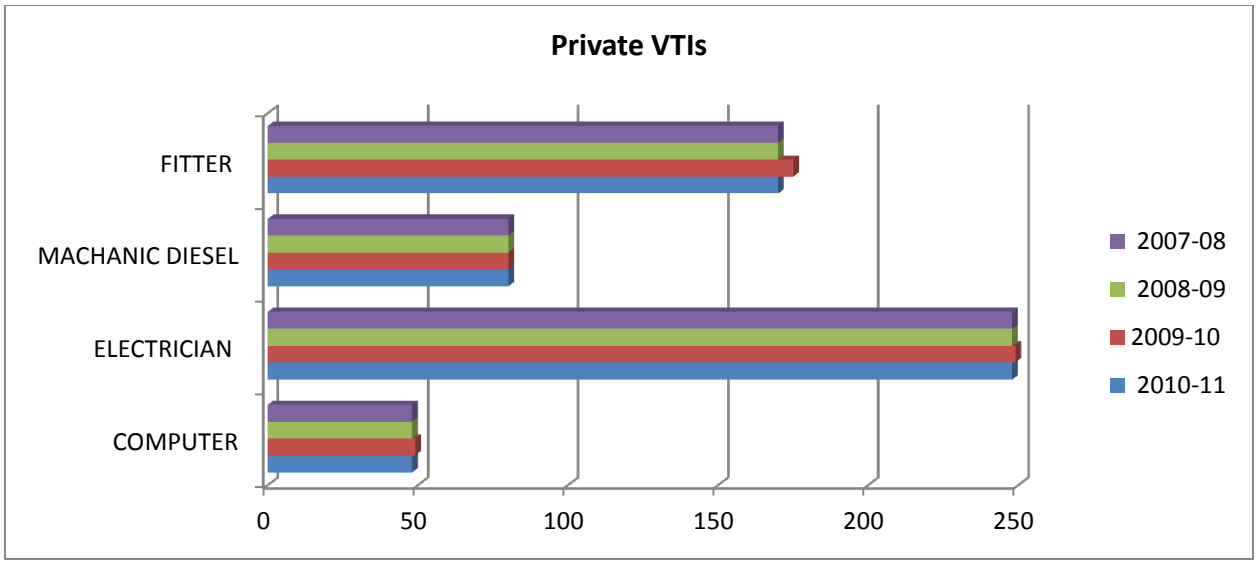


Figure 201 Trends of trained youths across trades over years

Sl No.	Krishna	Govt VTI	
1	**Positions**	**Approved**	**Actual**
2	Managerial	9	9
3	Academics	101	97
4	Support Staff	30	26
Sl No.	Krishna	Private VTI	
1	**Positions**	**Approved**	**Actual**
2	Managerial	6	4
3	Academics	32	30
4	Support Staff	2	2

Table 111 Academic & Support manpower approved & actual status

The trends in both government and private VTIs show more or less same demand for courses over the years. Both the Electrician & Fitter course seem to be the most preferred course in both the VTIs throughout all the years.

One challenge for the VTIs is staffing. Government VTIs appear to be understaffed in terms of academic and support manpower to run the VTIs. In the case of private VTIs, the shortfalls of manpower are in the managerial and academics categories, though they are not big enough to hamper routine functioning.

4.11.5 Placement & Absorption Trend

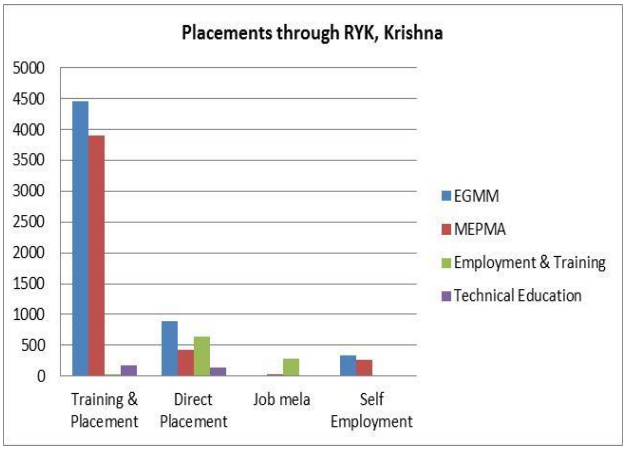


Figure 202 Placements through RYK, Rajiv Yuva Kiranalu Report June 2012

Krishna district has two employment exchanges. The number of candidate names in the live register during 2009-10 was 74,248. However, only around 10 candidates were actually placed. It is pertinent to note that the performance of the employment exchanges regarding placements and absorption is very poor and hardly any placements have taken through the employment exchanges.

Candidates can also look for jobs through the Rajiv Yuva Kiranalu mission, which helps youth find employment. As the diagram shows, most candidates are either absorbed by private

institutes with direct industrial linkages or through direct placements by industries offering job specific training linked to placements. The Job Mela organized at the district level as a part of the ongoing Rajiv Yuva Kiranalu, has made very few placements. A total of 7,787 candidates have been trained and 3,278 have been placed post training due to the successful implementation of projects like EGMM & MEPMA.

4.11.6 Sector wise mapping of industries in Krishna

Krishna district is an important industrial and commercial in the state of Andhra Pradesh. It has a huge potential for development of industries with easy access to water resources and adequate supply of power. Looking at the investment trends across various sectors, it is pertinent to note that sectors like textile, food, and port-based industries would be the prime movers of development in Krishna in the near future and would provide significant employment opportunities across the categories of skilled, semi-skilled, and minimally skilled.

Industry wise Sector Mapping					
NSDC (High growth sectors)	**Units**	**Employment**	**High**	**Medium**	**Low**
Agriculture & Allied	69	815			
Food Processing (Food beverages & Tobacco products	1228	21854			
Electronics Hardware	51	1116			
Textiles & Garments	50	2167			
Leather and leather goods	30	528			
Chemicals & pharmaceuticals	91	1890			
Transportation/logistics/warehousing and packaging	3	261			
Healthcare	89	180			
Education/ Skill Development					
Banking/ Insurance and finance	511	1000			
Manufacture of Wooden furniture	312	1481			
Paper & Publication	74	1299			
Manufacture of Rubber	33	761			
Petroleum	24	514			
Mines and Minerals	39	1053			
Metal based industries	77	1323			
Service based industries (Repairs & maintenance: R&D)	43	1924			

High	Units>200, emp>1000 - all applicable
Medium	Units>100, emp>500 - all applicable
Low	Units>10,emp>30 - all applicable

Table 112 Sector wise mapping of Industries; Source: DIC

SECTORS	No. of Industries Sampled
Auto & Auto Components	1
Chemical & chemical products	4
Construction Material & Building Hardware	2
Food Processing & Products	3
Machinery, Electricals & Manufacturing	10
Mines, Metals & Minerals	1
Textile & Handloom	5
Grand Total	**26**

Table 113 Sector wise no. of sampled industries in Krishna

In order to understand the trend in the existing market and industrial set up, a stratified sample of 26 industries were selected (depending on the employer group set up). The sample of employers consisted of functionaries from diverse industries located in the district.

When the employers were asked to rate their expectation from their workers on a scale of five, employers from Construction Material & Building Hardware sector reflected a relatively higher desire for worker characteristics across all the traits offered for ranking, with average ratings between 2 and 4. Most of the employers rated their expectations between 1.0 and 4.0, which indicate moderate level of satisfaction of employers with their employees.

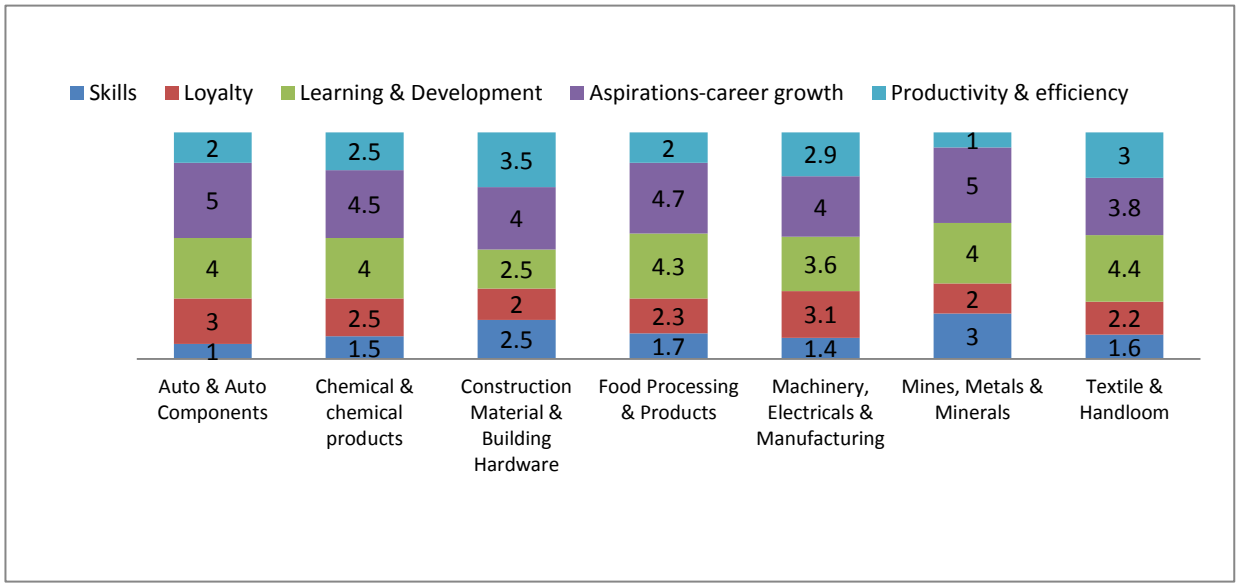


Figure 203 Expectation of employers as per sample survey

4.11.7 Composition of workforce

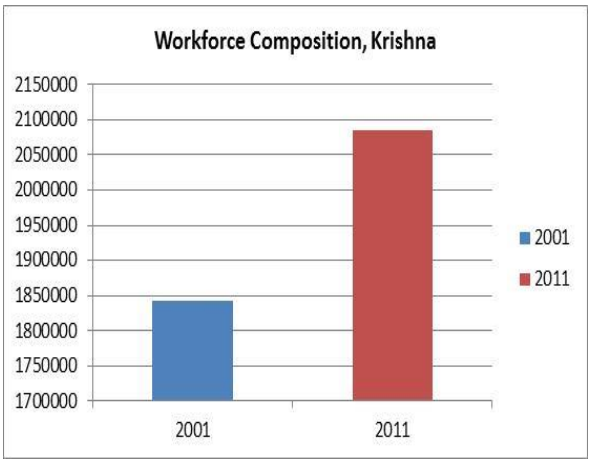


Figure 204 Category wise distribution of main and marginal workers; Source Census 2001

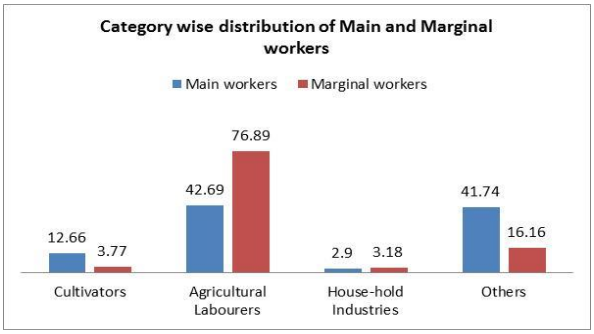


Figure 205 Projected Workforce; Source: Deputy Commissioner of Labour, 2012

The working population in Krishna district is expected to rise by 13 percent against the 2001 data. It is pertinent to note that Krishna's total workforce participation rate is 44 percent. The total male working population is 58.4 percent against the female working population of 29.5 percent.

Out of the total working population, main workers comprise 37.6 percent of the total population followed by marginal workers at 6.4 percent, and non-workers at 56 percent. Out of the population of main workers, 42.69 percent are agricultural laborers, followed by other industries at 41.74 percent, cultivators at 12.66 percent and household industries at 2.90 percent.

It is observed that a major proportion of main workers are engaged into agricultural activity and in other industries like tourism, hospitality and construction.

Among the population of marginal workers, 76.89 percent are agricultural laborers.

It has been estimated that the major proportion of the workers in the age group of 15 - 59 years fall into the category of main workers. Interestingly, among the non-workers and marginal workers, females in the age group of 15 - 59 outnumber males. It is pertinent to note that Krishna district has the third highest proportion in the state of workers in the 15-159 years age group.

4.11.8 Projected Workforce Demand

A total of 26 industries were sampled for the workforce survey to represent seven major sectors in the district. The table above shows the availability of skilled, semi-skilled, and minimally skilled workers according to their numbers in the sampled industries, at the time of the establishment of the industry, their present strength and their required strength. Eighteen of the sampled industries across three sectors, food processing, machinery, electrical and manufacturing, and textiles and handloom could provide their skilled workers strength and report retention and an increase of their skilled, semi-skilled and minimally skilled worker strengths. Two sectors, machinery and textiles had the potential to absorb more skilled workers. Four industries have maintained the same number of skilled, semi-skilled and minimally skilled workers' strength from the time of industry establishment to the current date.

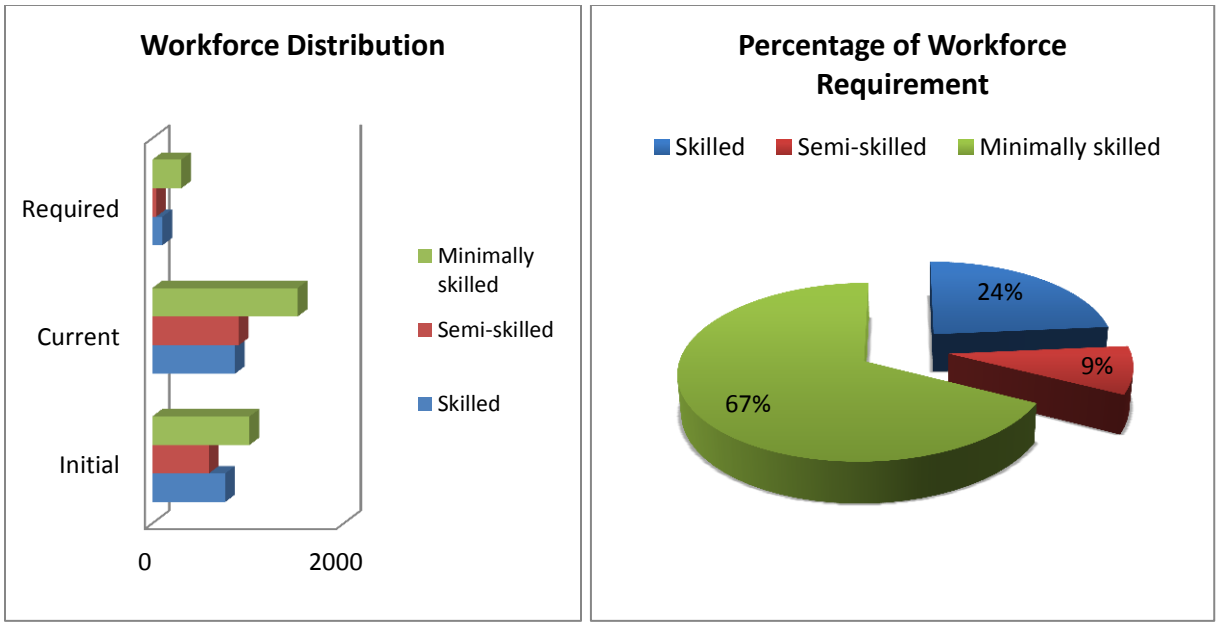


Figure 206 Workforce distributions in sampled industries in terms of skilling as per primary survey

Across the seven sectors represented in the sample, the proportion of minimally skilled workers is greatest, followed by skilled and the semi-skilled workers. Across all seven sectors represented in the sample, relatively large worker strengths were observed for the machinery and textiles sectors. The mines, metals and minerals industries reflect low workers strength in all three categories.

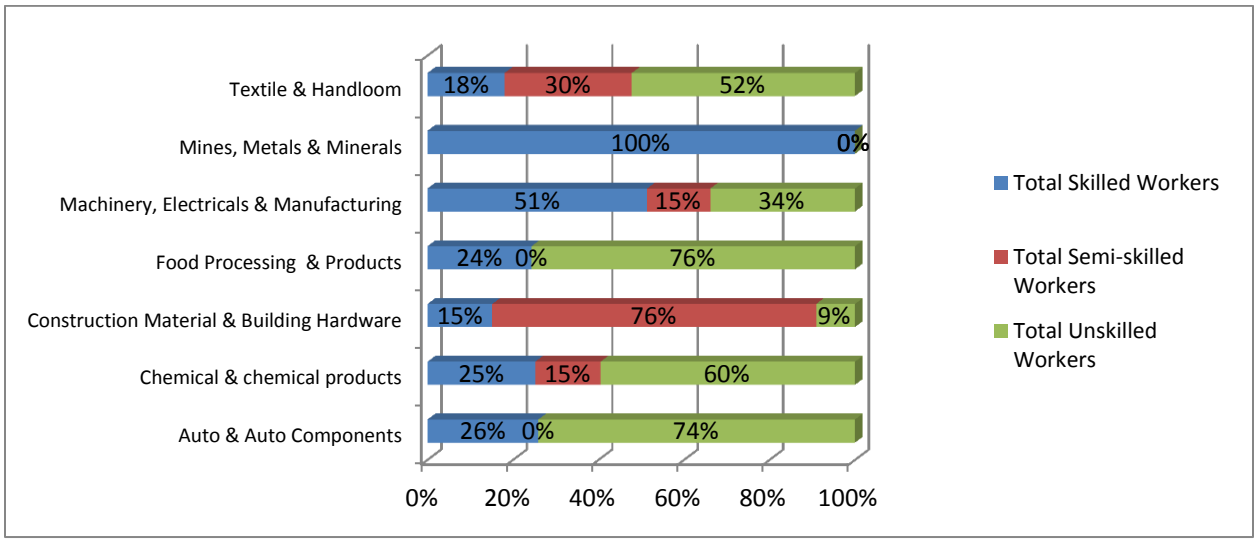


Figure 207 Sector wise current workforce distribution pattern across industries

The number of vacancies reported by the sampled employers for the minimally skilled category of workers was the highest, followed by skilled and the semi-skilled workers. The count of vacancies reported by various employers reflects a strong potential for absorption of workers.

Current strength for the skilled, semi-skilled and minimally skilled categories of workers was not in the equal proportion. The count for semi-skilled worker is far less than that for skilled and is about half of the minimally skilled workers' count. The data showed that there was earlier a

huge disparity in the strengths of the skilled and semi-skilled workforce. Earlier, industries were more dependent on minimally skilled workers for their day to day operations and this trend is still present, with many vacancies for minimally skilled workers still present.

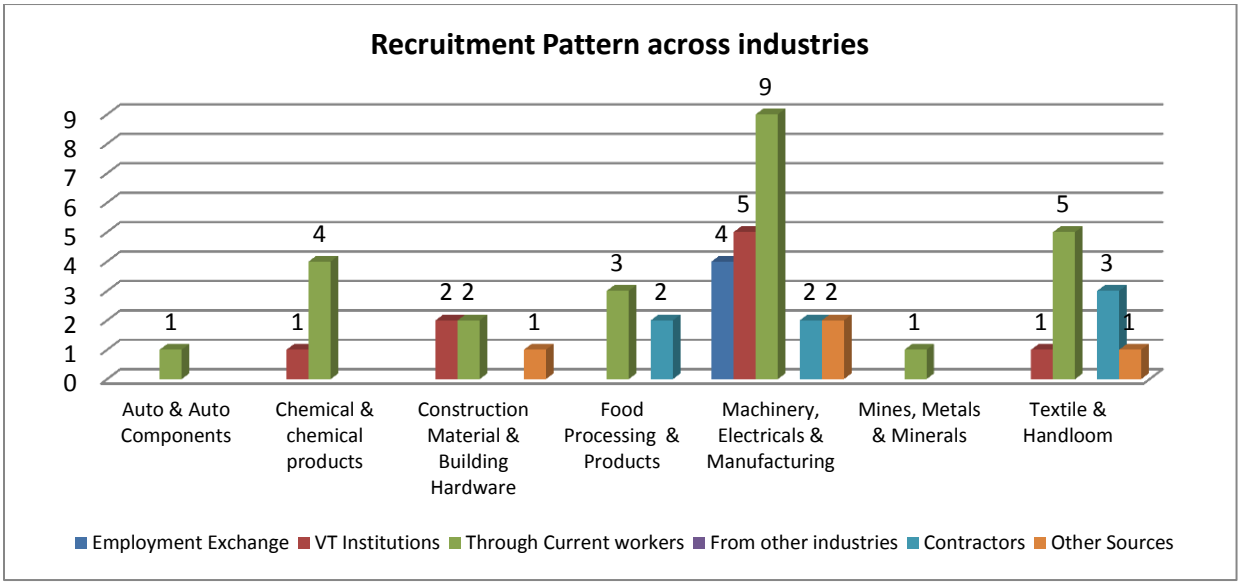


Figure 208 Sources of recruitment of current workers as per sample study

Most recruitment appears to take place through current employees referring a potential new hire. Other ways of recruiting include going through VTIs or contactors. The table below shows manpower demand in various sectors over the years by 2022. Agriculture and allied industries will remain to be the largest employer over the years. Although, demand for skilled manpower in the sector will reduce, more semi-skilled and minimally sector labor will required. Other sectors requiring incremental demand will be construction, hospitality and BFSI sector.

Incremental manpower demand over the years till 2021-22

The table below indicates incremental manpower requirement in the district in various sector till 2021-22. The agriculture sector has witnessed a negative CAGR of -1.06 percent from 2004-05 till 2009-10. Due to this, a large section of the workforce is expected to migrate from agriculture sector to secondary and tertiary sectors. Sectors with high incremental workforce requirement are construction, transportation & logistics, BFSI and real estate.

	2012-2017			2017-2022		
Industry	**Skilled**	**Semi-Skilled**	**Minimally Skilled**	**Skilled**	**Semi-Skilled**	**Minimally Skilled**
Agriculture & Allied Activities	-6310	-31548	-119882	-4232	-21161	-80413
Mining & Quarrying	2986	1452	3050	2862	2249	3066
Construction	45435	55520	38996	45495	48745	72792
Tourism, Travel & Hospitality	73575	-16846	-19333	13944	6275	4183
Transportation,	24655	12560	4187	24884	12677	4226

Logistics, Warehousing & Packaging						
IT & ITES Sector	11710	1226	223	11631	1218	222
Banking & Financial Services Insurance	34539	4291	1035	26902	12106	8071
Real estate	12207	15742	6410	9534	10215	15254
Other Services	16066	-11392	-10563	-7630	-3478	-2191
Electricity, gas & water supply	-495	-295	-200	-495	-297	-198
Food processing	-2951	-2089	-862	-2951	-1771	-1181
Chemicals & Pharmaceuticals*	939	469	469	939	563	376
Coke, refined petroleum and nuclear fuel*	43	24	19	43	26	17
Rubber and plastic products*	215	114	101	215	129	86
Auto & Auto components*	-1520	-1059	-461	-1520	-912	-608
Metals & non metallic products*	2016	1022	994	2016	1210	806
Textile & leather	2855	1559	1296	2855	1713	1142
Wood & Paper products	1423	788	635	1423	854	569
Total	217388	31538	-93885	125913	70358	26219

Table 114 Incremental manpower demand across various sectors till 2022 in Krishna
*Manufacturing Sectors

4.11.9 Skill Gap Analysis

The skill gap analysis was performed by undertaking a survey. A structured questionnaire was designed to map current and the future skill requirements of the industries identified in Krishna district. The analysis factored in industry linkages with vocational training institutes, the employment exchanges, and other sources for workforce absorption and retention. Overall, the supply of minimally skilled labor exceeds demand in all the years examined. The supply of skilled and semi-skilled manpower remains low when compared to industry demand. The skill gap situation for the district for 2012-17 and 2017-22 based on projections is represented in the table below.

Incremental Workforce Demand & Supply Gap						
	2012-2017			2017-2022		
Sectors	**Skilled**	**Semi-Skilled**	**Unskilled**	**Skilled**	**Semi-Skilled**	**Unskilled**
Demand	217388	31538	-93885	125913	70358	26219
Supply	15754	11826	133192	6906	20046	123842
Gap	201634	19711	-227077	119007	50312	-97623

Table 115 Representation of incremental Skilled/ Semi-skilled & Minimally skilled workforce trend 2011-2022

As per the interviews conducted with the senior functionaries of industry, vocational training facilities meet current industry requirements. Some of the findings are mentioned below:

- Current training provided by the government and private institutes meet industry requirements. However, capacity needs to be increased. Focus should also be on 'on-the job' training in manufacturing and construction sector which currently is not available.
- Industry requires skilled manpower in sectors such as spinning, coir industry, tobacco industry etc.
- Scope of self-employment and entrepreneurship is high the district. However awareness needs to be created for self-employment and entrepreneurship and the government needs to provide them beneficial schemes.
- Demand for skilled manpower in trades such as plumbing, electricians, fitters etc will increase in coming years.

4.11.10 Youth Aspirations

The youth survey study was primarily undertaken through the survey instrument. Structured questionnaires were designed to capture youth aspirations and perceptions across the four categories of employed, self-employed, unemployed, and trainees.

In-depth interactions were held with respondents across the various categories of youth to provide deeper insight and understanding.

The youth were covered from the categories of employed, self-employed, unemployed and trainees (as shown in the table above). Out of those covered, 38 percent were college educated and 62 percent had only completed high school education. All the respondents were from registered VTIs; 10 percent of them from government VTIs and 90 percent from private institutes.

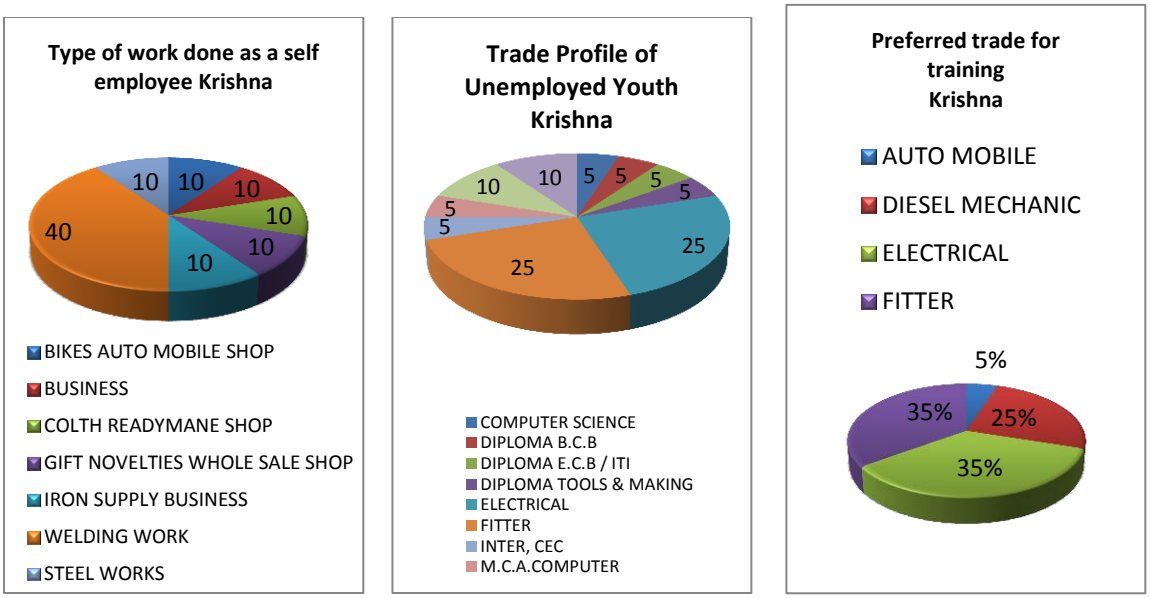


Figure 209 Profile of respondents (trainee, self-employed & unemployed youth) by trade in sample of Krishna

Respondents were asked to name their preferred courses. The course for electricians appears to be one of the most popular, with 35 percent opting for it. Another trade chosen by 35 percent of respondents was the fitter trade.

Out of those respondents who were self-employed, 40 percent selected welding work while the rest picked various other trades in slices of 10 percent each. Among the unemployed respondents, 25 percent chose the fitter trade and another 25 percent, the electrical trade, while the mechanical and turner trades each got 10 percent.

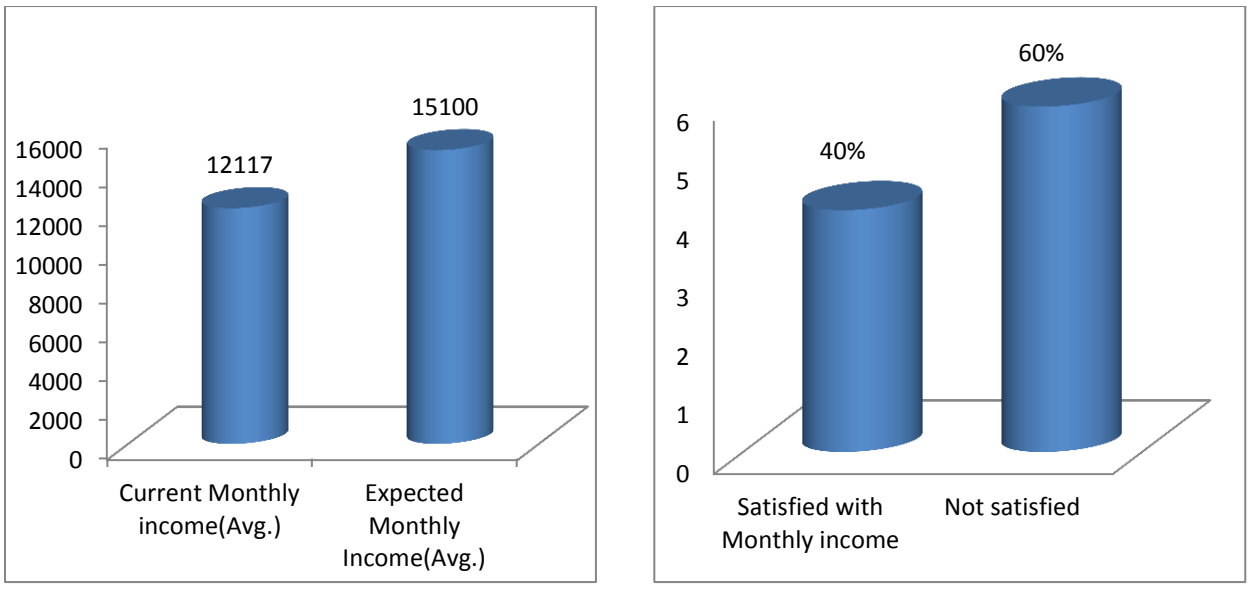


Figure 210 Salary perception of youth of Krishna

All respondents wish to have a better salary than what is offered to them in the market. A minimum average hike of INR 2,983 is expected across different trades. While a majority of respondent youth (60 percent) appears to be not satisfied with the current remuneration received, the remaining 40 percent respondents were satisfied with the present salaries.

Parameters considered by District's youth while opting for vocational training

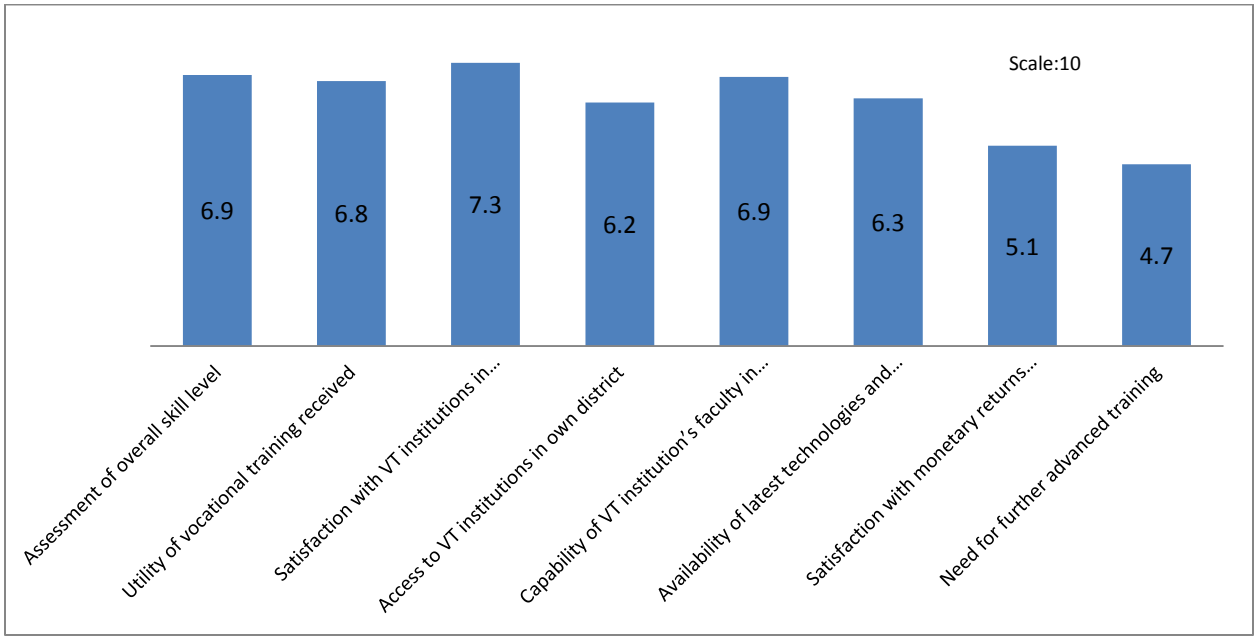


Figure 211 Krishna Youth's perception, need and aspirations –Sample Group

Students did find the current vocational training provided useful, although they expected an improvement in curriculum and more practical training for better industry relevance. As per the youth, the vocational training institutes were accessible in terms of reach and awareness. Although, youth seem to be unaware about the financing options available. Most of the surveyed youth were not satisfied with the post training salary and thus didn't see much benefit in taking up-skilling courses.

4.11.11 Recommendations: Skill development ecosystem

Krishna district is a hub of industrial clusters in food processing, imitation jewelry, pharmaceuticals and auto components. The district has established vocational training infrastructure. Currently, the training providers meet industry requirements, but it was also felt that on-the job training and customized training solutions should also be provided to improve worker efficiency. Focus sectors should be construction, hospitality, services and retail sector.

Table 116 Key growth sectors in the district - Krishna

Sectors	Growth Opportunities
Construction	• The sector contributed highest (44 percent) to the secondary sector DDP during 2009-10. • In terms of anticipated employment, the sector will witness highest manpower demand of approx. 3.06 people till 2021-22.
Transportation, Logistics, Warehousing & Packaging	• The sector contributed 14 percent to the tertiary sector GDDP during 2009-10. • The sector witnessed a high growth rate of 11.35 percent from 2004-05 till 2009-10. • Currently, the district doesn't have many training courses in this sector.
Banking &	• The sector witnessed the highest growth rate of approx. 15.5

Sectors	Growth Opportunities
Financial Services Insurance	percent from 2004-05 till 2009-10. • Training is required in courses such as rural baking, insurance and marketing.
Real Estate	• The sector contributed highest (24 percent) to the tertiary sector DDP in 2009-10. The sector witnessed a high growth rate of 9 percent from 2004-05 till 2009-10. • Currently, there are very few training providers in this sector.

The key stakeholders' contribution to achieve the target would be as follows:

State: The district is expected to remain largely dependent on agriculture and allied sectors. The district has high literacy rate and strong educational infrastructure.

Action Plan:

a) Since large population will still be employed in unorganized sector, State will have to collaborate with local bodies such NGOs, to reach out workers to take spread awareness about benefits of vocational training.
b) State will have to collaborate with Industry, to define wage structures of skilled workers in unorganized sector such as construction and agri allied sector.

Training Partners:

Action Plan:

a) Training partners need to collaborate with local NGOs to mobilize students for vocational courses. A large number of youth will be shifting from agriculture sector to organized sectors such as retail and hospitality.
b) Offer multi skilling courses to the workers employed in agriculture sectors to address seasonal unemployment.
c) Certify and provide placement support to those graduating from the MES trades to catalyze transition into the formal sector.

Industry: The primary sectors of high human resource requirement would be construction, servicing and repairing, food processing, retail etc.

Action Plan:

a) Provide incentives to the workers to take up skilling courses by restricting wages.
b) Collaborating with state and training partners to create a career path for the workers to enable vertical and cross functional mobility.
c) Engage in placement campaigns by the training institutions; assist in expectation settings of new entrants in the labour market.

NSDC:

Action Plan:

a) NSDC should encourage training partners who can offer multi skilling courses in sectors such as real estate, retail, tourism, hospitality etc.
b) NSDC should work on a mechanism that can allow certification of informally acquired skills by workers in unorganized sectors.

4.12 Kurnool

The subsequent section highlights the economic base of Khammam district and its occupational structure. It identifies the high impact industries and skills needed to match expected growth.

The latter section represents the projected workforce demand and supply in the coming years and the optimization plan for the district.

4.12 Kurnool

4.12 1 Kurnool District Demographic Profile

Kurnool is one of the most prominent districts in the Rayalaseema region. It is strategically located on National Highway 18 and is gifted with rich natural resources. The district is bounded to the north by two major rivers, the Krishna and the Tungabhadra. A large hydro-electric power project stands across the Krishna river at Srisailam. But despite this major project, the district is poorly developed socioeconomically. In many ways, the district still lags behind other parts of Andhra Pradesh, with a human development index of 0.473, against the state average of 0.537.

Its per capita income of INR.29,548 also trails behind state-wide figure of INR 37,061 at constant prices 2004-05. On the other hand, some urbanization has occurred. The proportion of the urban population to the total population in the district was 28.26 percent in 2011 compared to 23.16 percent in 2001. Looking at prevailing trends, this largely rural district could face a decline in employment opportunities.

Kurnool District at a Glance				
Population	**Kurnool District**		**Andhra Pradesh**	**Remarks**
	Provisional Census 2011	**Census 2001**	**Provisional Census 2011**	
Total Population	4046601	3529494	84665533	
Total Population - Male	2040101	1796214	42509881	
Total Population - Female	2006500	1733280	42155652	
Population Growth	14.65%	10.87%	11.10	
Area Sq. Km	17658		275100	
Density of Population (Density/Area sq.Km)	229	200	308	
Proportion of Andhra Pradesh population	4.78%	4.63%		
Decadal growth of population (2001 - 2011)	14.65%	10.87%	11.10%	
Literacy rate	61.13	53.2	67.66	
Male Literacy	71.36	66.00	75.56	
Female Literacy	50.81	40.00	59.74	
Sex ratio (per 1000)	984	965	992	
Worker population participation rate		49.4	45.7	Census 2001
Cultivators to total workers		22.2	22.52	Census 2001
Agriculture laborer in workforce		46	39.64	Census 2001
Household workers		28.3	4.71	Census 2001
other industry and services		28.3	33.13	Census 2001

Table 117 Kurnool district at a glance

As per provisional Census 2011 data, Kurnool accounts for a population of 4.046 million with a sex ratio of 984 females per 1000 males. In 2001, the figure was 965. The total area of the district is 17,658 sq km, which accounts for 4.78 percent of the total area in Andhra Pradesh and makes it the third largest district in the state. Among the 23 districts in the state, Kurnool district gained the third highest decadal population growth rate with 14.65 percent against the state figure.

Kurnool's literacy rate is the third lowest in the state. The literacy rate in 2011 was 61.13 percent compared to 53.2 percent in 2001. Broken up by gender,71.36 percent of males and 50.81 percent of females were literates. However, male literacy showed a considerable jump of 5.36 percentage points between 2001 and 2011, while female literacy rose 10.81 percentage points during the same period.

Moving to the working population, Kurnool's total workforce participation rate is 52.14 percent, the fourth highest in the state. Not surprisingly, the female workforce participation rate is much lower than that for males. Indeed, most females in the district fall into the marginal workers category.

Kurnool's main worker population comprises 42.5 percent of the total population followed by marginal workers at 6.9 percent while non-workers account for 50.6 percent. Out of the population of main workers, 24.26 percent are cultivators, 41.68 percent are agricultural laborers, 3.54 percent work in household industries and other industries accounted for 30.52 percent. All in all, cultivators and agricultural laborers dominate the total working population.

4.12.2 Economic Profile

The district's Gross district domestic product (GDDP) has grown at the growth rate (CAGR) of 8.22 percent from 2004-05 till 2009-10. In 2009-10, tertiary sector contributed approx. 49.88 percent to the GDDP primarily due to the contribution of trade, hotels and restaurants sector followed by primary sector which contributed 30.53 percent to the district's GDDP.

As shown in the chart below, the contribution of the primary sector has grown steadily at a CAGR of approx. 6 percent, tertiary sector grew (CAGR) by 8.13 percent and secondary sector witnessed highest growth rate(CAGR) of approx. 12.71 percent from 2004-2005 till 2009-10.

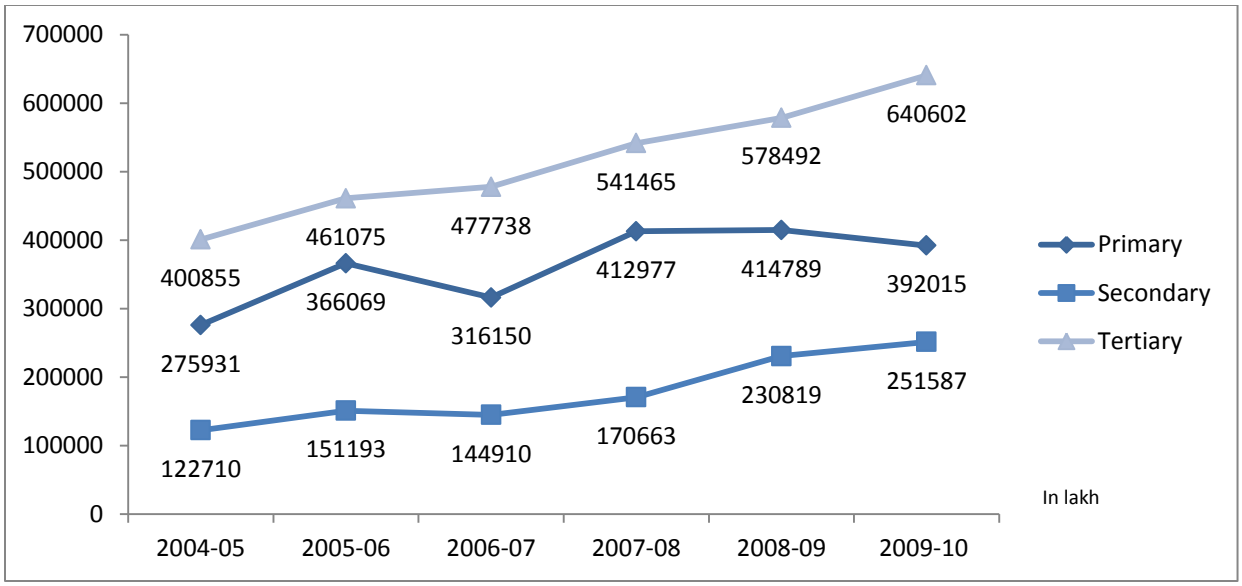


Figure 212 Sector level contribution to the GDDP, Kurnool

Primary Sector

The primary sector (agriculture, forestry &logging, livestock, fishing and mining & quarrying) contributed approx. 30.53 percent to the GDDP in 2009-10. Agriculture sector remained as the highest contributor to the primary sector, contributing 67 percent to the primary sector in 2009-10, followed by livestock (17 percent), mining and quarrying (10 percent), forestry and logging (4 percent), and fishing (2 percent).

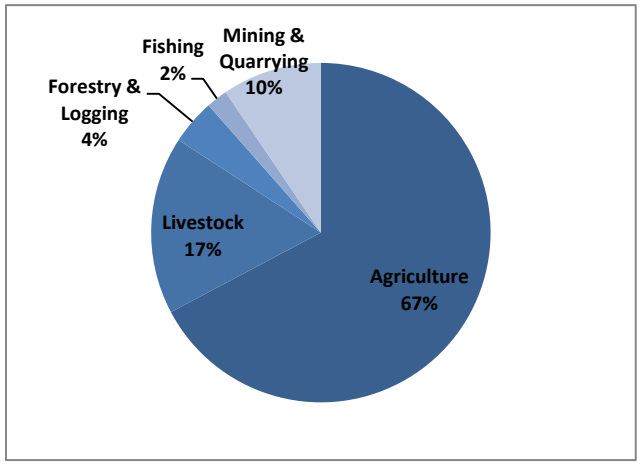


Figure 213 Primary sector contribution to GDDP, 2009-10

The CAGR for primary sector is approx. 6 percent from 2004-2005 till 2009-10 with livestock registering highest growth (CAGR approx. 12 percent) from 2004-05 till 2009-10.

Secondary Sector

The contribution of the secondary sector to district GDP in 2009-10 was approximately 19.59 percent. The sector has shown an impressive CAGR of 12.71 percent from 2004-05 till 2009-10, primarily due the contribution of construction sector.

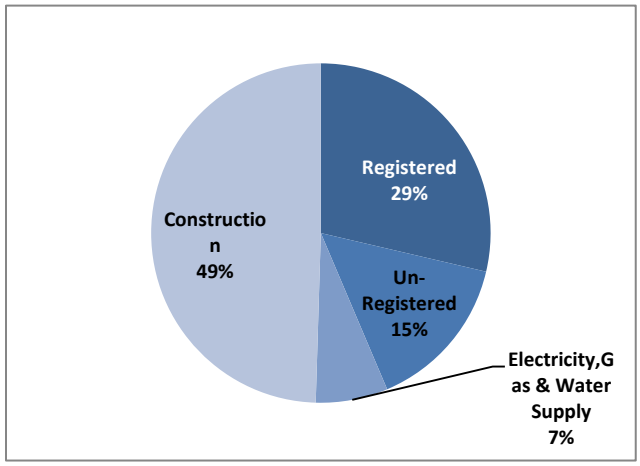


Figure 214 Secondary sector contribution to GDDP, 2009-10

The construction sector has shown an impressive CAGR of 11.61 percent from

2004-05 till 2009-10. However the growth of manufacturing sector has been high with registered manufacturing units growing by approx. 28.12 percent from 2004-05 till 2009-10.

Tertiary Sector

The contribution of the tertiary sector has been significant to the district's economy over the years. In the year 2009-10, the contribution of the tertiary sector was 49.88 percent to the district's GDDP. The sector has witnessed CAGR of approx. 8.13 percent from 2004-05 till 2009-10, primarily due the trade, hotels and restaurants sector.

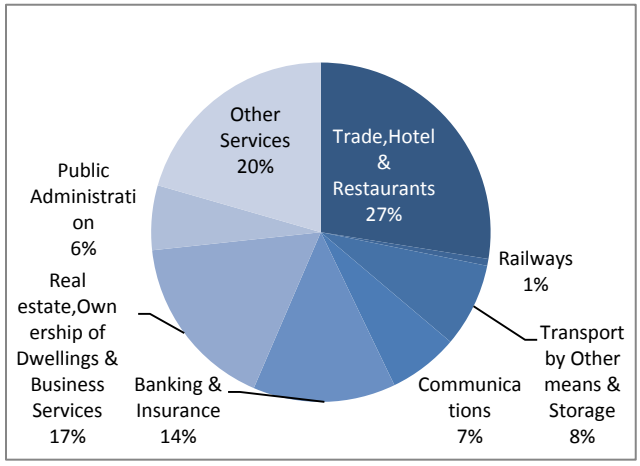


Figure 215 Tertiary sector contribution to GDDP, 2009-10

Two sub- sectors which have shown a high CAGR from 2004-05 till 2009-10 are communications (16.04 percent) and BFSI (approx.13.94percent). Trade hotels and restaurants have contributed highest to the growth of the sector; it has witnessed a CAGR of 8.86 percent from 2004-05 till 2009-10. Real estate and other services grew (CAGR) by approx. 6 percent from 2005-05 till 2009-10.

Industry Mapping

Kurnool has a huge potential for development of industries because of its strategic location, proximity to Hyderabad and Chennai, easy access to water resources and adequate supplies of power. Kurnool is also one of the most mineral rich districts in Andhra Pradesh. Industry in Kurnool contributes 3.69 percent to the state GDP at constant prices from 2004-05 to 2009-10.

Kurnool district is fortunate in many ways. It is located near major urban centres and is well connected by road and rail. The district has iron ore, dolomite, barites, clay, limestone, ochre, quartz, shellae, stealite and silica sand in relatively smaller quantities. Besides it mineral deposits, Kurnool also has a strong standing in agriculture. About 70 percent of the working population of the district is either directly or indirectly engaged in agricultural and allied activities.

Also, according to Andhra Pradesh Industrial Infrastructure Corporation, Kurnool district has seven industrial areas with around 22,500 units. Industries in the district include oil mills, textile mills, stone polishing units, cement plants, and chemical factories. MSE units may benefit from the backward and forward linkages that these units provide. There is also scope to manufacture the spares and components that these industries need. These range from essential parts like bearings and bolts to abrasive materials, grinders, industrial gloves, and effluent treatment plants.

Kurnool district is famed for its Bethamcherla stones from Bethamcherla town, its ground nut oil mills cluster at Adoni, artificial diamonds and artificial jewelry of Kurnool, the carpets cluster of Adoni, cane and the bamboo cluster of Ahobilam, and stone carving cluster of Allagadda. Of these, Bethamcherla Stone cluster and the Adoni oil mills cluster are thriving clusters. All in all,

the district has considerable scope to develop both minerals-based industries and agro and horticulture-based units.

Large & Medium Industries

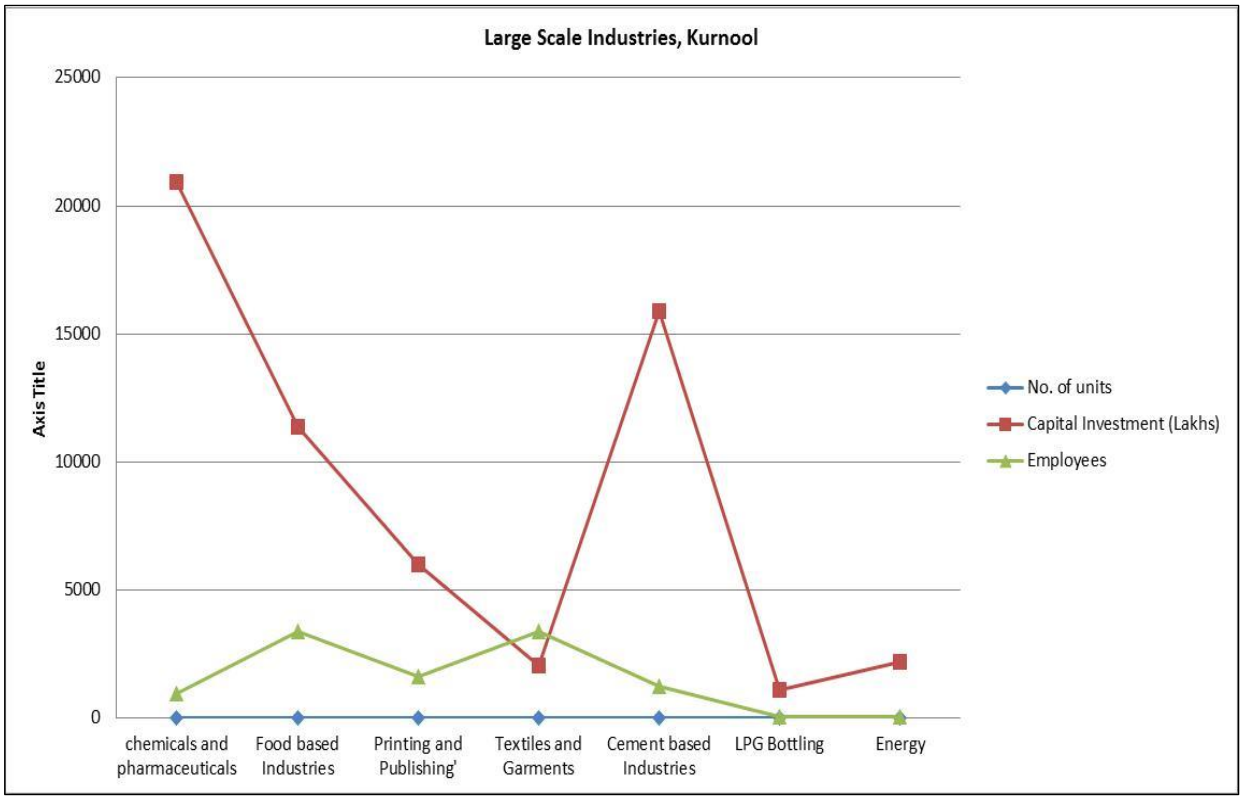


Figure 216 Large Scale industries, DIC data

According to District Industries Centre data from 2011, Kurnool has 39 large and medium industries with an investment of INR 149,546 lakh. Major industries in the district include Sree Rayalaseema Alkalies and Allied Chemicals Ltd, Heritage Foods (India) Ltd etc. The sectors attracting the highest investments are chemicals and pharmaceuticals followed by cement and food -based industries. However, the workforce demand is higher in the cotton industry, refined oil and paper printing.These large industries together provide employment to 10,867 people.

Small Scale Industries

Kurnool district has around 4,523 small scale industries providing employment to 43,425 persons. Since 1996-97, 994 new industries were established, providing incremental employment to 10,772 people.

There is some marginal growth in workforce demand from emerging sectors like the wood-based industry, cement, the forest-based sector and services industries. Some of the leading players in this district are Sree Rayalaseema, Hi-Strength Hypo Ltd, JSW Cements Ltd., Shashiprabha Ispat & Energy Ltd., Rain Cements Ltd.etc.

4.12.3 Education Infrastructure and Utilization

The literacy rate of Kurnool is quite low, positioned the third lowest in comparison to other districts in the state. The literacy rate in 2011 was 61.13 compared to 53.2 in 2001. As per Census 2011, the total number of graduates and above in Kurnool district was 1, 01,204. It is interesting to note that out of the total graduates and above, 76 percent were male and 24 percent were female.

However, the percentage of the district graduates to Andhra Pradesh's total graduates is 3.58 percent.

Schools	Total Number	No. of Enrollments
Primary Schools	2261	278590
Upper Primary Schools	818	152598
Secondary Schools	706	238480
Higher Secondary Schools	3	1759

Table 118 Education Statistics; Source: Statistical Abstract 2011

The gross enrolment ratio for classes I-V is 118.70 percent, followed by 88.39 percent in classes VI–VIII and 66.40 percent in classes VIII–X. In contrast, the corresponding figures for the state as a whole are 100.46 percent, 84.76 percent, and 69.51 percent respectively. Kurnool has just three higher secondary schools with 1,759 enrollments. The number of higher secondary schools needs to be increased at an immediate basis. The dropout rates show an increasing trend over class I-X of 57.44 percent. Kurnool will need to focus on quality of education, besides increasing the number of schools, providing incentives to the best teachers, and improving facilities for students. There are 20 private engineering colleges in Kurnool, but no government colleges. These engineering colleges offer various courses and have a combined intake capacity of approximately 5,788 students per year. Major courses offered include computer science as well as engineering courses in telecom, computer science, electronics, electricals, instrumentation, and mechanical engineering. There are also nine polytechnic colleges with total intake capacity of 2,270 students per annum.

4.12.4 VTI's demand across various trades in Kurnool district

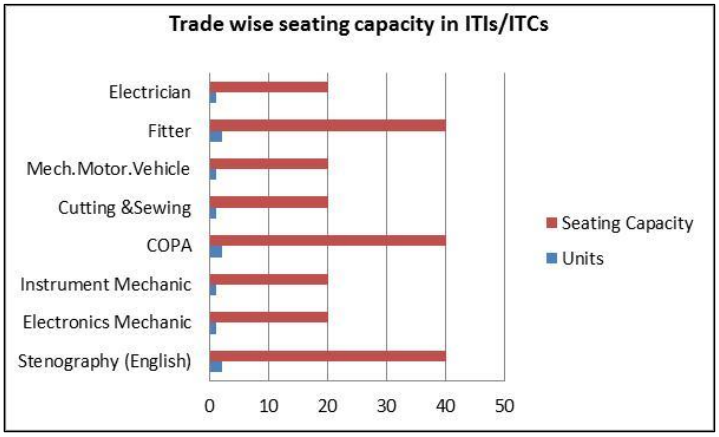


Figure 217 Trade wise seating capacity in ITIs

There are 23 vocational training institutes in Kurnool. The overall intake of all the ITIs and ITCs is around 29,013 students per annum. Out of these vocational training institutes, four are government ITIs and the remainder are private ITCs. These institutes impart training in a variety of trades like dress making, electronics repair, stenography, welding, fitter, turner, welder, electrician, mechanics, and COPA. At present trades like COPA, fitter and stenography are in demand in Kurnool. However, new trades are introduced based on industry demand. All the trades permanently affiliated to National Council of Vocational Training of Director General of Employment and Training.

Government VTI Trades	Private VTI Trades
COPA	Electrical
Instrument Mechanic	Fitter
Electroplater Marine	Motor Mechanic
Skin Care Embroidery & Needle work	Mechanic Diesel
Electrical	Civil
Mechanic Diesel	D/M Civil
	Health and Sanitary

Table 119 Education Statistics; Source: Statistical Abstract, Andhra Pradesh – 2011

The government VTIs sampled for the study offer six different trades for training, while the private VTIs offer seven trades. Private VTIs also have a much higher intake capacity. The capacity of private ITIs is much higher than that of government ITIs. The electricians' trade appears to be popular among students at both private and government institutes. The course for diesel mechanics has a 100 percent enrollment rate at government VTIs. In private ITIs, the Health and Sanitary course was the least preferred with only 15 percent enrollment and no placements. In government VTIs, it was observed that the number of actual trainees compared to the number of approved number of seats is the same across three trades, those for marine electroplaters, electricians, and diesel mechanics, while in other three trades, seats were vacant.

There is only one sampled government VTI. An overview of placement records by trade in the private VTIs indicates stronger prospects in almost all of the courses with the exception of the civil trade. The average salary of students after the course is at par with the state average. Average salaries for trainees from private VTIs indicate the best prospects for high wages are in the civil trade followed by the one for the motor mechanic and D/M civil trades. While many students at private ITIs get placed through campus interviews, more get jobs by proactively approaching industry. The district's employment exchange does not seem to be playing any role.

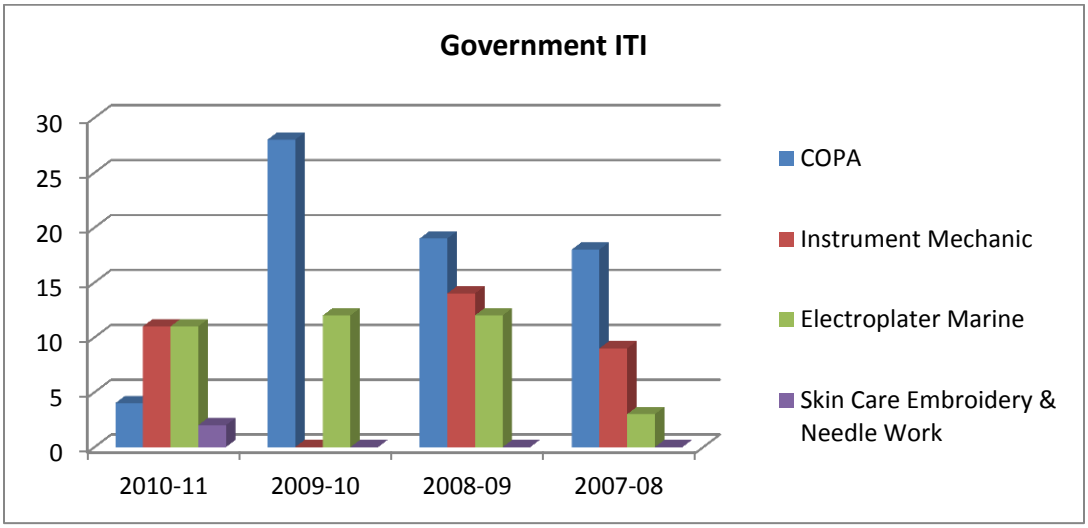


Figure 218 Number of seats occupied over the past years in Government ITIs

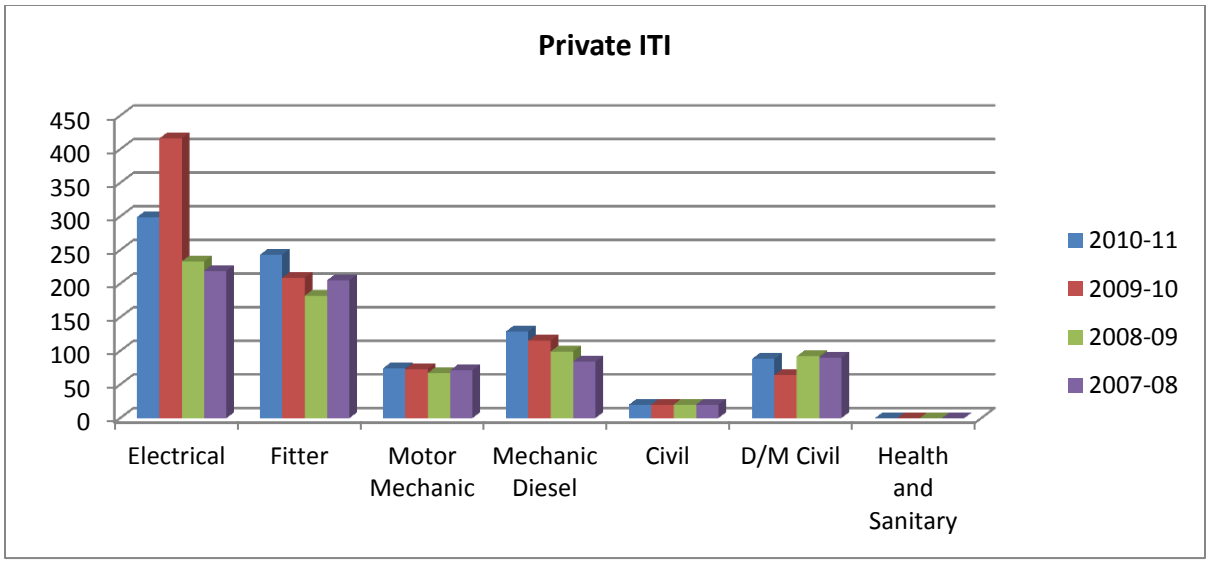


Figure 219 Number of seats occupied over the past years in Private ITIs

Out of the nine private ITIs surveyed, only three were updated with latest technologies. Also, only two of them had hostel facilities, though only for boys. No private ITI has girls' hostels. The government ITI surveyed claimed to be updated with latest technologies but had no hostel facilities and suffered from power supply problems.

Positions	Approved	Actual
Managerial	4	3
Academics	6	5
Support Staff	4	2
	Private VTI	
Positions	**Approved**	**Actual**
Managerial	32	31
Academics	48	43
Support Staff	14	13

Table 120 Approved & Actual No. of staff in VTIs

Staff shortfalls only appear to be a minor challenge. Both the government and private ITIs are adequately staffed for managerial and support functions, though the private ITIs were slightly understaffed when it came to teachers.

4.12.5 Placement & Absorption Trend

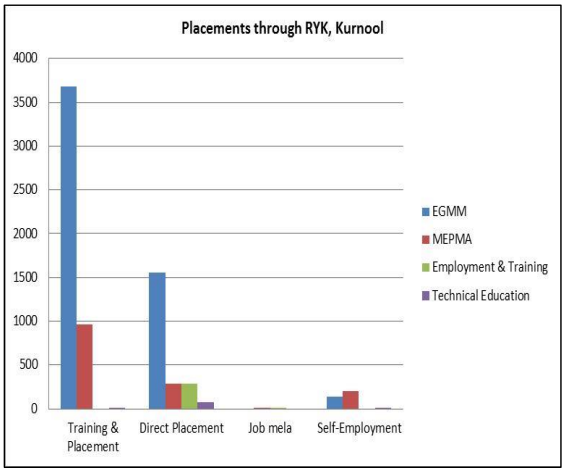


Figure 220 Placements through RYK; Source: RYK state level placements monitoring report, June 2012

Candidates from ITIs can also seek to get placed through the district's employment exchange or the Rajiv Yuva Kiranulu mission, which seeks to help educated youth get jobs.

As the diagram shows, the vast majority of candidates are absorbed by private institutes with direct industrial linkages.

Kurnool has one employment exchange and the number of candidates in the live register during 2009-10 was 1,18,9660. But out of that large

number, only some 24 candidates actually got placed. The Job Mela arranged by the Rajiv Yuva Kiranulu has also had very limited success.

4.12.6 Sector wise mapping of industries in Kurnool

Industry is fast becoming a major growth center. As per the D.I.C data for 2011, there is a huge potential for growth in the services industry, the agro sector, textiles, horticulture, minerals, chemicals, engineering, and in the electrical and electronics industries. These sectors are also expected to provide significant employment opportunities for skilled, semi-skilled and minimally skilled workers.

Sector	No. of Industries Sampled
Agriculture & Allied	4
Chemical & chemical products	1
Construction Material & Building Hardware	4
Food Processing & Products	4
Mines, Metals & Minerals	3
Petroleum & Petroleum Products	1
Power Generation	2
Stone Querying, cutting & Polishing	2
Textile & Handloom	4
Grand Total	**25**

Table 121 Sector-wise no. of sampled industries

In order to understand the current marketplace and industrial trends, a stratified sample of 25 industries was selected. The sample employers consisted of senior level functionaries from nine diverse industries located in Kurnool. When the employers were asked to rate their expectation from their workers on a scale of five, overall ranking of employers was on the lower side. Employers from the construction material & building hardware sector reflected a relatively higher desire for worker characteristics across all the traits offered for ranking, with average ratings between 2.0 and 2.8. Most of the employers rated their expectations between 1.0 and 2.0, which indicates a low level of satisfaction. In the stone quarrying, cutting and polishing sectors, employers rated learning and development characteristics at 3, which was the highest rank.

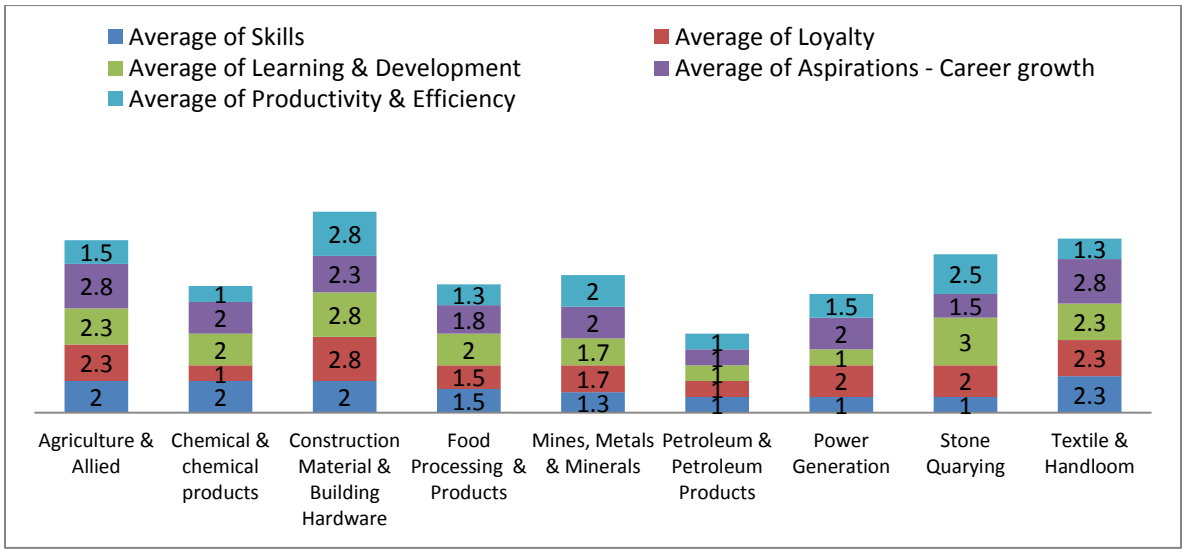


Figure 221 Sectors covered with number of industries surveyed in the industry

4.12.7 Composition of workforce

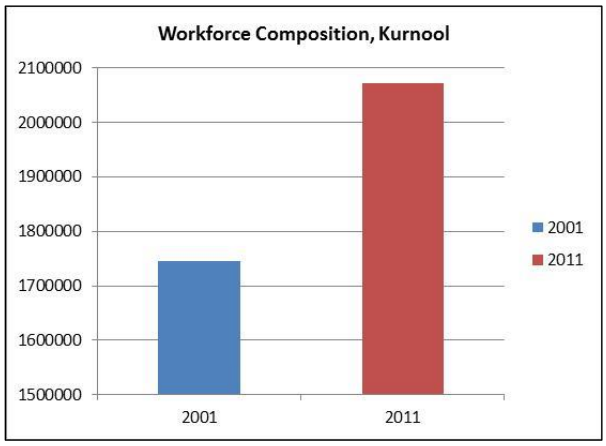


Figure 222 Category wise distribution of main and marginal workers; Source Census 2001

Kurnool district holds the fourth highest position in the state, when it comes to the workforce participation rate. There has been rising trend observed in workforce engaged as agricultural labourers and cultivators. Looking at the present resources and skill set of the workforce, agro-based industries are likely to play a key role in coming years, creating greater demand for workers.

According to provisional Census 2011 data, the total workforce in Kurnool district is expected to rise by 18 percent against the 2001 data. It is pertinent to note that the total workforce participation rate in Kurnool district is 52.14 percent, making it the fourth highest in the state. Out of the total working population, the female workforce participation rate is much lower than that for males. On the other hand, females make up the bulk of marginal workers.

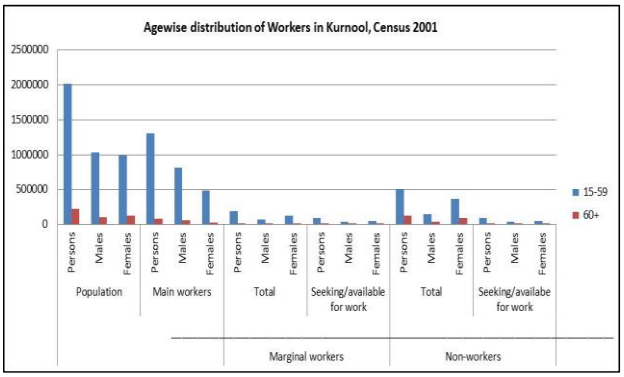


Figure 223 Age wise distribution of workers

Kurnool's workforce participation rate has shown a small increase in the overall WPR rate for both males and females. There has also been a decline in the proportion of the main workers with a corresponding increase in the proportion of the marginal workers. The data shows most marginal workers are employed as agriculture laborers. Indeed, there has been a substantial increase in the proportion of marginal workers over the decades. It is also notable that the number of agricultural laborers is almost twice the number of cultivators, that is, the actual farmers. This could be because of poor farming conditions in the state turning farmers into laborers.

As with any other place, Kurnool's workforce participation rate varies according to stages of economic development across size, age and sex. A large proportion of workers in the age group of 15 - 59 years are main workers. Interestingly, among the non-workers and marginal workers, females in the age group of 15 - 59 outnumber males.

4.12.8 Projected Workforce Demand

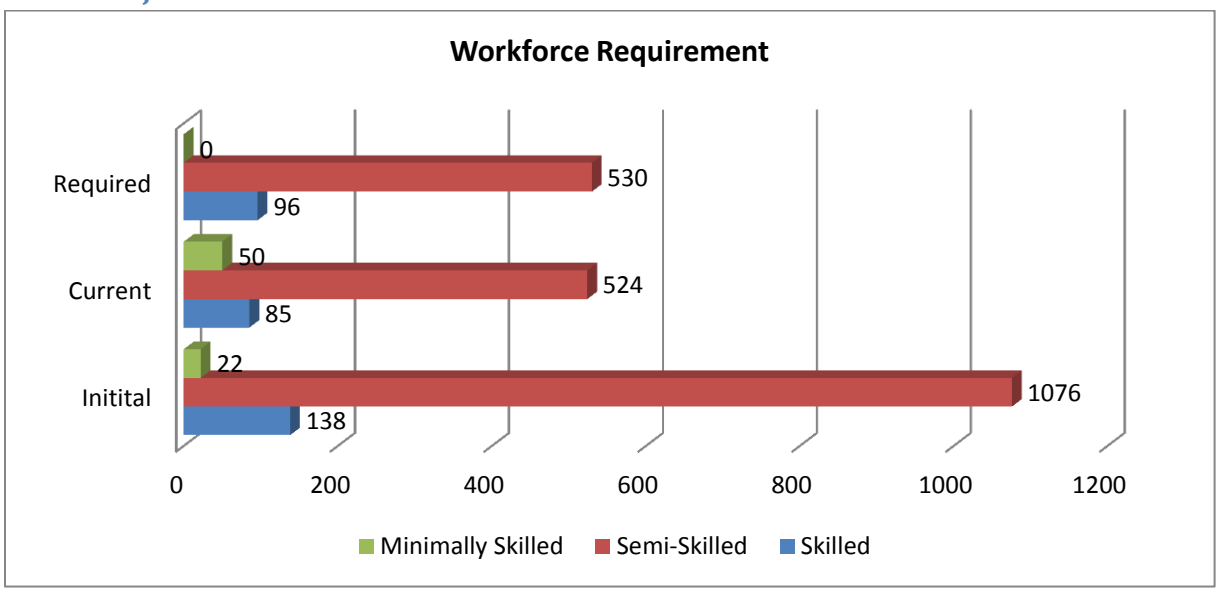


Figure 224 Workforce distributions for initial, current & required

A total of 25 industries were sampled for the survey to represent nine major sectors. Availability of skilled, semi-skilled and minimally skilled workers is shown in the above table. Twelve of the sampled industries across four major sectors named chemicals and chemical products, construction material & building hardware, mines, metals & minerals, and textile could provide their skilled workers' strength.

Twenty of the sampled industries across the eight sectors report retention and an increase of their skilled worker strengths from the time of establishment to the current date. Across eight industries, two sectors, food processing and textiles, have the potential to absorb more skilled workers. Also, except for the agriculture sectors, all others have expanded the number of semiskilled staff. The textiles & handloom sector reported the ability potential to absorb more semi-skilled workers. In the minimally skilled workers category, eight out of nine different sectors report retention and an increase of their worker strengths. On the other hand, the agriculture sector has reduced its minimally skilled workforce.

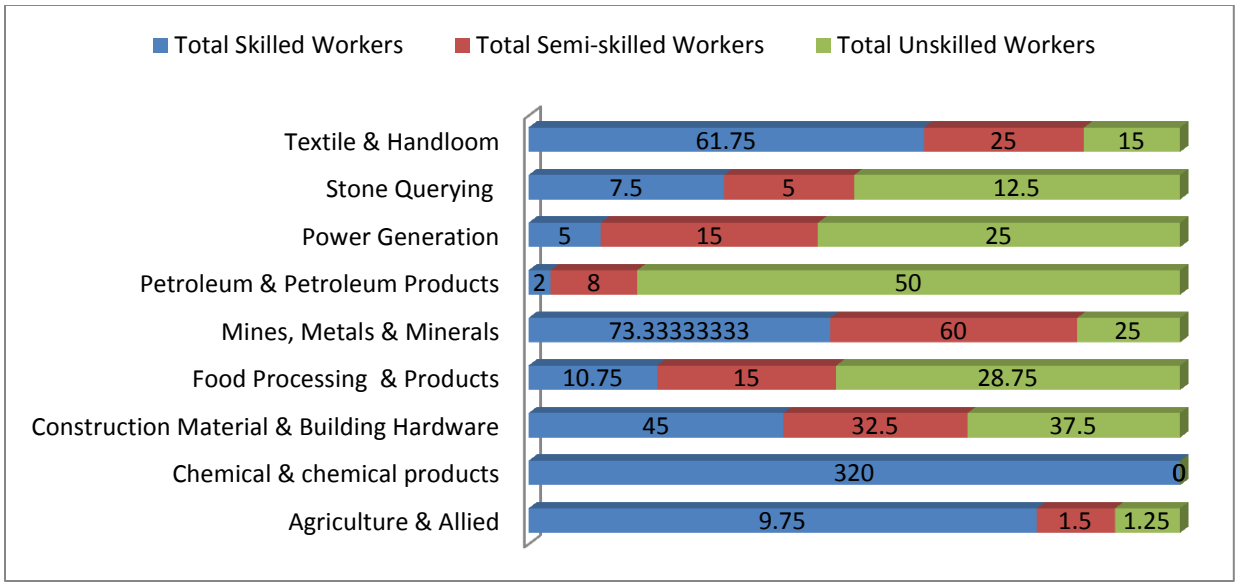


Figure 225 Sector wise current workforce distribution pattern across industries

Across the nine sectors represented in the sample, the proportion of skilled workers is the highest, followed by minimally skilled and semi-skilled workers. Across all nine sectors represented in the sample, relatively large worker strengths in the semi-skilled and minimally skilled categories were observed in the mines, metals & minerals sector, followed by construction material & building hardware and textiles. The stone quarrying, cutting and polishing industries reflect low workers strength across all three categories. It is pertinent to note that for the chemical & chemical products sector, data on semi-skilled and minimally skilled worker strength is not given.

Worker Category	No. of Workers at the Time of Establishment	Current Strength of Workers	No. of Vacancies Reported
Skilled	138	1076	22
Semi-skilled	85	524	50
Minimally skilled	96	530	0

Table 122 Distribution of workers in current, past and future in sampled industries

The number of vacancies reported by the sampled employers for the semi-skilled category of workers was the highest followed by skilled workers, whereas no vacancies were available for minimally skilled workers. These numbers suggest employment opportunities for skilled and semi-skilled workers. While the numbers of employed skilled and semi-skilled workers are roughly equal, there are twice as many minimally skilled workers.

It was observed, through the data of worker at the time industry establishment, that there was huge disparity in skilled, semiskilled and minimally skilled workforce. The data also shows demand for skilled workers has increased over time.

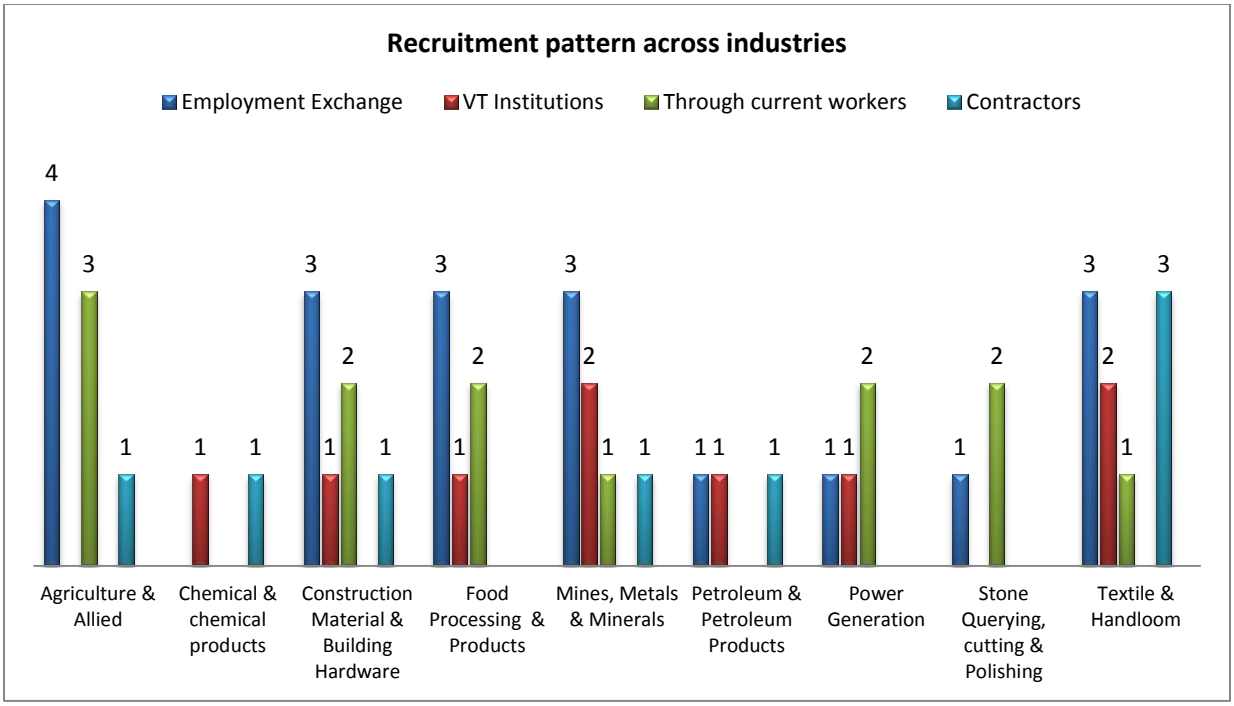


Figure 226 Recruitment preferences across sampled industries

Recruitment of required workers from known sources such as references provided by current employees appears to be the most popular method of recruitment. Some candidates are recruited when they directly approach industry and a few are recruited through contractors.

Incremental manpower demand over the years till 2021-22

The table below shows the incremental manpower requirement across various sectors over the years till 2022. Over the years, the rise in demand for skilled labor leads the way, amounting to 55 percent. Sectors like banking, hospitality, tourism, construction, and manufacturing will witness a large rise in incremental demand.

	2012-2017			2017-2022		
Industry	**Skilled**	**Semi-Skilled**	**Minimally Skilled**	**Skilled**	**Semi-Skilled**	**Minimally Skilled**
Agriculture & Allied Activities	2674	13372	50813	-2246	-11230	-42675
Mining & Quarrying	1993	-174	1846	1070	841	1147
Construction	34565	42322	29249	34342	36795	54947
Tourism, Travel & Hospitality	56917	-8420	-11133	18108	8148	5432
Transportation, Logistics, Warehousing & Packaging	-1044	-532	-177	-2093	-1066	-355
IT & ITES Sector	10861	1137	207	11313	1184	216

	2012-2017			2017-2022		
Banking & Financial Services Insurance	17031	1681	150	12501	5625	3750
Real estate	1775	2763	-1401	147	158	236
Other Services	11186	-8230	-7621	-5531	-2499	-1636
Electricity, gas & water supply	99	57	42	99	59	40
Food processing	-115	-103	-12	-115	-69	-46
Chemicals & Pharmaceuticals*	356	151	205	356	214	143
Rubber and plastic products*	-28	-19	-9	-28	-17	-11
Auto & Auto components*	113	63	49	113	68	45
Metals & non metallic products*	155	8	147	155	93	62
Textile & leather	903	517	386	903	542	361
Wood & Paper products	603	344	258	603	362	241
Total	138045	44937	63000	69696	39207	21895

Table 123 Incremental manpower demand across various sectors till 2022

4.12.9 Skill Gap Analysis

The skill gap analysis was performed by undertaking a survey. A structured questionnaire was designed to map the current and the future skill requirements of the industries identified in Kurnool on the basis of manpower absorption and production in high growth industries. The analysis factored in industry linkages with vocational training institutes, the employment exchange, and other sources of workforce absorption and retention. It also highlights the significant mismatch between industry skill requirements and the skill pool emerging.

Incremental Workforce Demand & Supply Gap						
	2012-2017			2017-2022		
Sectors	**Skilled**	**Semi-Skilled**	**Unskilled**	**Skilled**	**Semi-Skilled**	**Unskilled**
Demand	138045	44937	63000	69696	39207	21895
Supply	13515	13076	237838	7175	21596	233999
Gap	124530	31861	-174838	62522	17611	-212104

Table 124 Incremental Skill Gap across workforce skilled, semi-skilled and minimally skilled

The focus of the district would be to engage more minimally skilled workers to become semi-skilled through training, while further enhancing the skilled workforce base across emerging services.

In-depth interviews conducted with senior functionaries of industry associations, emphasized the need to increase the capacities of the current vocational training. Some of the important findings were as follows:-

1. Currently, not much training is being provided for the growth sectors such as manufacturing, construction, hospitality and BFSI. The capacity needs to be increased. More focus should also be laid on practical training.
2. Demand for skilled manpower in small and medium industries is high and expected to grow more. The state also needs to promote self-employment and entrepreneurship through beneficial schemes and by introducing new training courses.
3. Demand for skilled workers will be increasing over the next 3-5 years. Major employment opportunities are likely to come from in the automobile, mechanical engineering and electrical hardware sectors.
4. New requirements are also expected to grow in professions like plumbing, office assistants, office managers, facility management, and in IT enabled services.

4.12.10 Youth Aspirations

The youth survey study was primarily undertaken through a survey. Structured questionnaires were designed to capture youth aspirations across four key categories, employed, self-employed, unemployed, and trainees. The study of the perceptions, aspirations, attitudes and expectations of the youth was undertaken in Kurnool district to understand what the youth think, why they think the way they do and how society respond to their aspirations. Interviews were scheduled with respondents and focus group discussions were held with college students.

Most of the youth surveyed were trainees, thus the feedback on the existing capabilities of VTI was valuable. Out of the respondents, 83.3 percent were college-educated and 16.7 percent had only completed high school. All the respondents were covered from registered ITIs. Also, 80 percent were being trained at government it is and the remaining 20 percent at private ones.

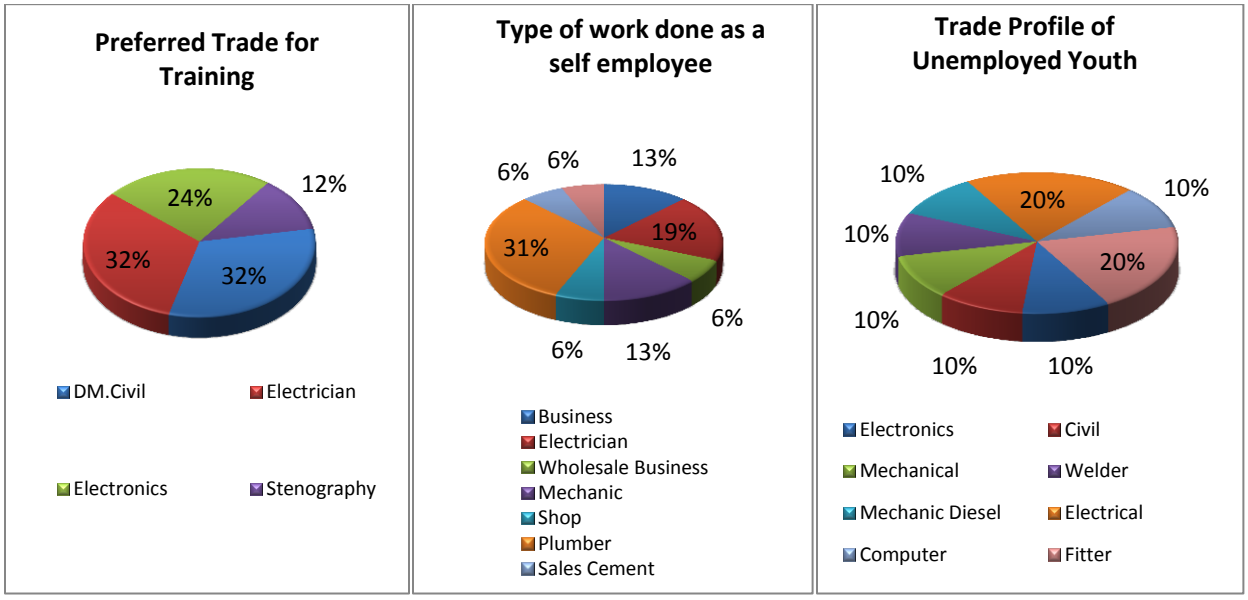


Figure 227 Profile of respondents (trainee, self-employed & unemployed youth) by trade in sample of Kurnool

The students participating in the survey came from diverse backgrounds. Some 32 percent were in the electrical course and another 32 percent took the DM Civil course. They were followed by 24 percent who took the electronics course. . Out of those who were self-employed, 31 percent were plumbers and 19 percent were electricians. Among those currently unemployed, 20 percent picked the fitter trade and another 20 percent, the electricians' trade. The rest of the trades got 10 percent each of the unemployed youth. Out of those employed, most were not satisfied with their current salaries. Salary expectations were on average higher than current pay by INR 5,500.

Parameters considered by District's youth while opting for vocational training

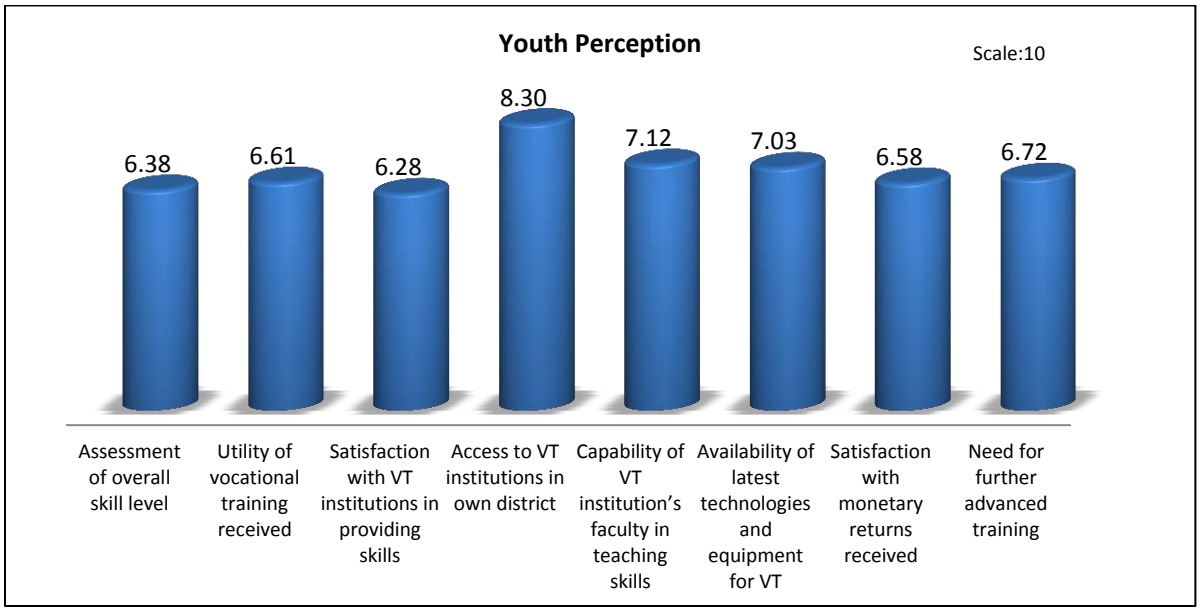


Figure 228 Kurnool Youth's perception, need and aspirations –Sample Group

One of the biggest concerns students had was the quality of training at ITIs. While most agreed that access to ITIs was easy, they were sceptical about the value of money these institutes provided, especially when it came to imparting critical skills.

4.12.11 Recommendations: Skill development ecosystem

The industrial sector is set to grow in Kurnool district in the coming years. The number of manufacturing units will increase, resulting in an increase in demand of skilled manpower. Although, the current quality of training in the district meets industry and youth expectation, industry expects VTIs to embrace the latest technologies for on-the job trainings in the coming years. Apart from this, services industry such as trade, hospitality and retail will also require skilled manpower. Currently, no specific courses are being run in these trades. NSDC should encourage training providers who could meet the above mentioned skilled manpower requirements.

Sectors	Growth Opportunities
Construction	• Construction sector contributed highest (49 percent) to the secondary sector DDP in the district in the years 2009-10. • In terms of anticipated employment, the sector is expected to witness incremental manpower requirement of approx. 2.3 lakh people till 2021-22.
Tourism, trade and hospitality	• Trade, hotels & restaurants sector contributed 27 percent to the tertiary sector DDP in 2009-10. • Currently, there are few private training partners providing training in sector related courses, but they need to enhance their capacity to meet industry requirement.
BFSI	• The sector witnessed a high growth rate of approx. 13.9 percent from 2004-05 till 2009-10. • The industry is expected to grow and will require skilled manpower in financial services, rural banking and insurance sales.

Table 125 Key growth industries in the district – Kurnool

The key stakeholders' contribution in helping to achieve this target should be as follows:

State: The literacy rate of Kurnool is quite low, positioned the third lowest in comparison to other districts in the state.

Action Plan:

a. Major focus of the State should be encouraging courses which target youth with low educational qualifications and provide them with required certifications to enable them to get absorbed in formal sector.
b. State needs to build center of excellence for various skill sets in order to ensure the quality as required by the industry.
c. State also needs to encourage enrolment of girls in vocational training by introducing favorable schemes and better infrastructure such as girls' hostels etc.

Training Partners: Owing the expected shift from agriculture sector to other industry of the district's manpower, training providers need to focus on specialized trades.

Action Plan:

a. Identify current skill set of the youth and provide them platform for horizontal mobility.
b. Build linkages with the industry
c. Build curriculum to enable youth for horizontal mobility in upcoming sector.
d. Identify upcoming Industries and build customized courses as per their requirements.

Industries: Currently, there are no linkages between the industry and training providers. Thus, industry is unable to absorb the current manpower because of lack of required skill sets.

Action Plan:

a. Collaborate with skill development institutes for updating course content & creating linkages for placement.

b. Industry needs to reward skilled manpower with higher wages. Promotions norms should be formed based of higher skill levels, encouraging the current semi-skilled and minimally skilled workers to take up-skilled courses.

NSDC: NSDC would be an enabler to lead the training partners in setting up skill development centres in upcoming sectors.

Action Plan:

a. Promote training providers to train in high growth sectors.
b. Greater emphasis should be on trades which can support self-employment in agro based industries.
c. Develop platform to enable people in vertical and horizontal mobility in various skills.

4.13 Medak District

The subsequent section highlights the economic base of Medak district and its occupational structure. It identifies the high impact industries and skills needed to match the expected growth.

The latter section represents the projected workforce demand and supply in the coming years along with the optimization plan for the district.

4.13 Medak District

4.13.1 Medak District Demographic Profile

Medak district is situated in the Telangana region of Andhra Pradesh. Sangareddy is the district headquarters. Medak has a high concentration of industry, though agriculture is the major source of livelihood. The district consists of 45 mandals and three revenue divisions: Sangareddy, Medak, Siddipet.

As per provisional Census 2011 data, Medak accounts for a population of 3.031 million, with a sex ratio of 989 females per 1000 males compared to 2001 Census figure of 974. There was also a decrease in the decadal growth of population from 17.64 percent in 2001 to 13.55 percent in 2011. In many respects, Medak is performing better than its peers. Its human development index of 0.550 was higher than the state average of 0.537. The district is also moving towards the urbanization. The percentage of its urban population to the total population in the district was 24.02 percent in 2011 compared to 14.36 in 2001. The district also reports a per capita income of INR 45,111 compared to the state's per capita income of Rs.37, 061 at constant price 2005-06.

Medak at a Glance				
Population	Medak District		Andhra Pradesh	Remarks
	Provisional Census 2011	Census 2001	Provisional Census 2011	
Total Population	3031877	2670097	84665533	
Total Population – Male	1524187	1352446	42509881	
Total Population – Female	1507690	1317651	42155652	
Population Growth	13.55%	17.64%	11.10	
Area Sq. Km	9700		275100	
Density of Population (Density/Area sq.Km)	313	275	308	
Proportion of Andhra Pradesh population	3.58%	3.50%		
Decadal growth of population (2001 - 2011)	13.55%	17.64%	11.10%	
Literacy rate	62.53	51.65	67.66	
Male Literacy	72.50	64.33	75.56	
Female Literacy	52.49	38.66	59.74	
Sex ratio (per 1000)	24.02	14.36	992	
Worker population participation rate	989	974	45.7	Census 2001
Cultivators to total workers	-	48.4	22.52	Census 2001
Agriculture laborer in workforce	-	35.27	39.64	Census 2001
Household workers	-	30.79	4.71	Census 2001
Other industry and services	-	4.1	33.13	Census 2001

Table 126 Medak district at a glance

The population density of Medak is 313 persons per sq km as against the state figure of 277 persons per sq km. The average literacy rate of Medak in 2011 was 62.53 percent compared to 51.65 percent in 2001. Despite the improvement, Medak's literacy rate trails behind the state average by about 5 percentage points. According to provisional Census 2011 data, the male literacy was 72.50 percent, while female literacy was at 52.49 percent.

Medak's total workforce participation rate is 48.4 percent. The total male working population is 55.5 percent against the female working population of 41.4 percent. It is pertinent to note that the proportion of the female working population in Medak district is 6.5 percentage points higher than the state figure.

The total workforce participation rate in Medak is slightly higher than the state figure. Given the large land resources available, much of the population is engaged in agriculture. Out of the total working population, cultivators account for 35.27 percent and agricultural laborers another 30.79 percent. The proportion of the marginal workers in Medak stands at 8.7 percent compared to the state figure of 7.7 percent.

4.13.2 Economic Profile

The district's Gross district domestic product (GDDP) has grown at the growth rate (CAGR) of approx.9.91 percent from 2004-05 till 2009-10. In 2009-10, tertiary sector contributed approx. 43 percent to the GDDP primarily due to the contribution of trade, hotels and restaurants sector followed by secondary sector which contributed approx. 39.27 percent to the district's GDDP.

As shown in the chart below shows the sector wise contribution of the three sectors from 2004-2005 till 2009-10.

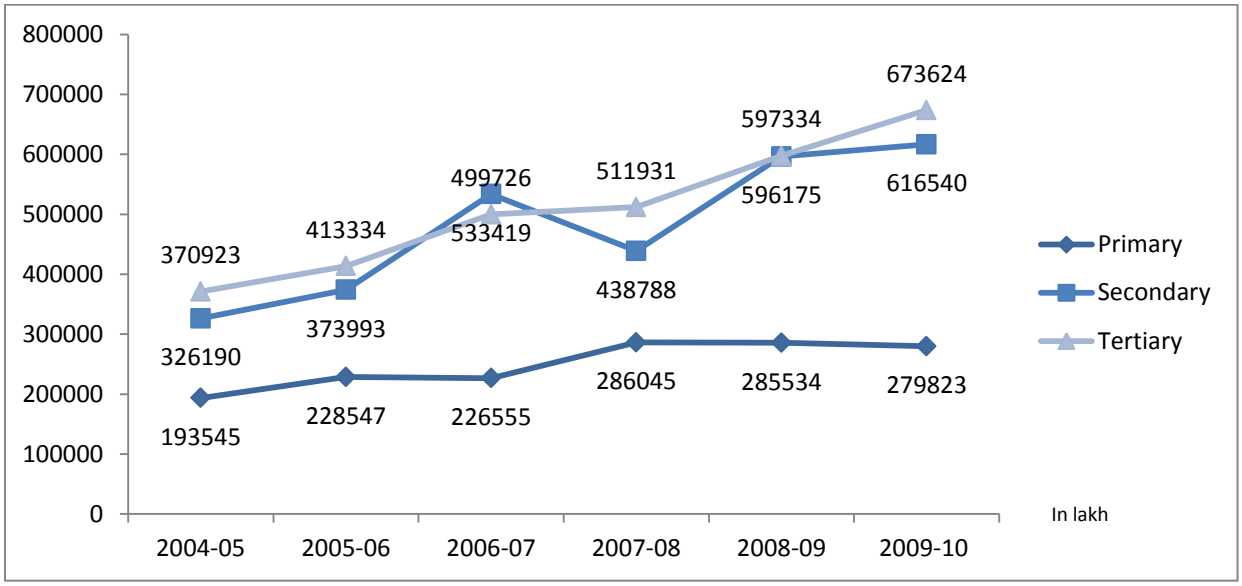


Figure 229 Sector level contribution to the GDDP, Medak

Primary Sector

The primary sector (agriculture, forestry &logging, livestock, fishing and mining & quarrying) contributed 17.82 percent to the GDDP in 2009-10. Livestock sector remained as the highest contributor to the primary sector, contributing approx. 51 percent to the primary sector in 2009-10, followed by agriculture (41 percent), mining and quarrying (4 percent), forestry and logging (3 percent) and fishing (1 percent).

The CAGR for primary sector is 6.34 percent from 2004-2005 till 2009-10 with mining and quarrying registering highest growth (CAGR-21. 18 percent) from 2004-05 till 2009-10.

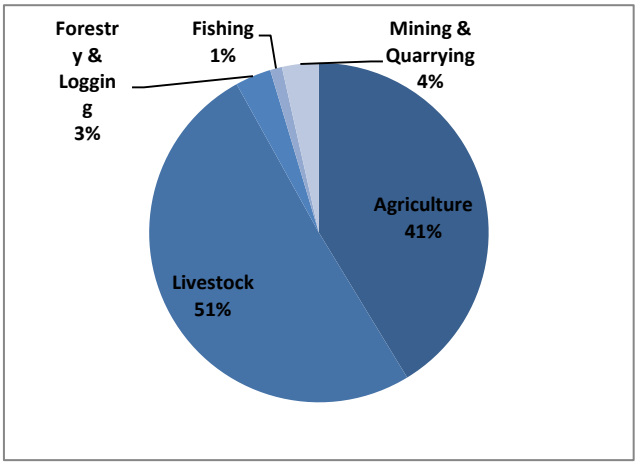


Figure 230 Primary sector contribution to GDDP, 2009-10

Secondary Sector

The contribution of the secondary sector to district GDP in 2009-10 was approximately 39 percent. The sector has shown a CAGR of approx. 11 percent from 2004-05 till 2009-10, primarily due the contribution of manufacturing sector.

The registered manufacturing sector has shown an impressive CAGR of approx. 12 percent from 2004-05 till 2009-10.

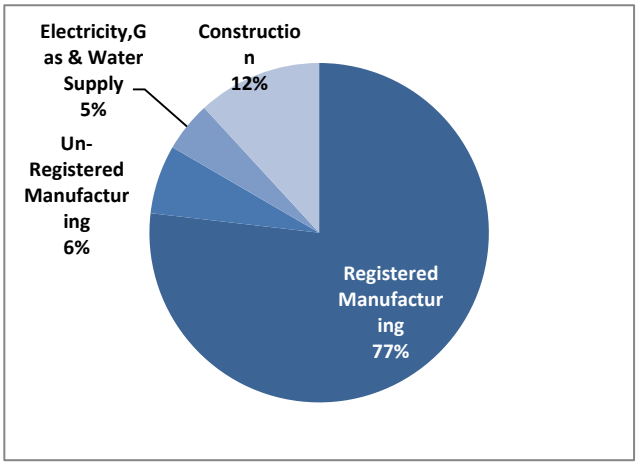


Figure 231 Secondary sector contribution to GDDP, 2009-10

Tertiary Sector

The contribution of the tertiary sector has been significant to the district's economy over the years. In the year 2009-10, the contribution of the tertiary sector was approx. 43 percent to the district's GDDP. The sector has shown CAGR of approx. 10.46 percent from 2004-05 till 2009-10, primarily due the trade, hotels and restaurants sector.

Three sectors which have shown a high CAGR from 2004-05 till 2009-10 are transport by other means & storage (approx. 13 percent), communications (approx. 15 percent) and BFSI (approx. 14 percent). Trade, hotels and restaurants have contributed highest to the growth of the sector; it has shown a CAGR of

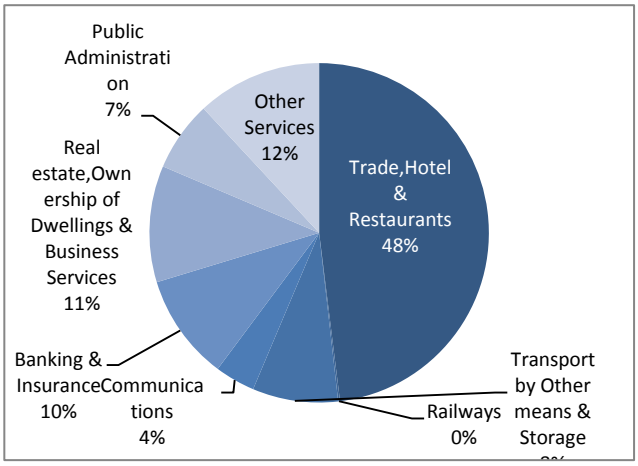


Figure 232 Tertiary sector contribution to GDDP, 2009-10

approx. 12 percent from 2004-05 till 2009-10. Real estate and other services grew by 5 percent from 2005-05 till 2009-10.

Industry Mapping

Medak district is strategically located very close to the twin cities of Hyderabad and Secunderabad and has huge potential for growth in the auto components sector. Medak is a backward district with more than 80 percent of the population dependent on agriculture. Industry too is growing in this district and contributes to a substantial 4.51 percent of GDP to the state at constant prices from 2004-05 to 2009-10.

Medak district, being a neighboring district of Hyderabad, is well connected and has the advantage of better access to the available resources. Industry in Medak district has gained momentum in the recent years after some effective policy implementation.

Taken together, Medak's natural resources, infrastructure development, and the government's policy Initiatives help make the district favorably suited for investments in major sectors like pharmaceuticals, automobiles, and food processing. Forming industrial clusters and developing infrastructure have been key strategies of the authorities. Indeed, Medak is now gearing up to compete with its nearest counterpart, Hyderabad, by focusing on the IT & ITES sector.

Large & Medium Industries

Medak district has around 284 large & medium industries with in investment of INR 35,440 million. Some of them are Mahindra & Mahindra, Dr. Reddy's Laboratories, MRF, Aurobindo Pharma, , Medicorp Technology, Neuland Labs, , SAMKRG Pistons, Asian Paints, Ralchem Ltd., PSM Spinning Ltd., and Kirby Building Systems. These industries provide employment to 65,108 people Some of the major products manufactured in Medak include turbines, generators, missiles, light combat vehicles, bulk drugs, pesticides, and refrigerators.

Existing Tiny & Small Scale Industries				
Sl. No.	**Category**	**No. of Units**	**Investment (in lakhs)**	**Employment (in no.)**
1	Basic Metal Products	557	5970.80	7687
2	Beverages and Tobacco Products	34	519.36	6112
3	Chemical, Bulk Drugs and Formulations	332	10661.10	7479
Existing Tiny & Small Scale Industries				
4	Electrical and Electronics	90	1485.98	1294
5	Food and Agro Products	989	3929.20	13906
6	Leather and Leather Products	120	407.24	703
7	Machinery and Parts, General Engineering	551	2481.80	3925
8	Non- Metallic Mineral Based Industries	284	2777.82	5304
9	Miscellaneous	30	407.81	311
10	Paper, Paper Products and Printing	172	1319.27	1433
11	Petroleum, Plastic and Rubber Products	289	4321.17	3267
12	Repairing and Servicing	301	775.89	1403

13	Textiles	28	314.73	275
14	Transport and Equipment	51	470.87	679
15	Wood Products	359	625.58	1780
16	Others	39	1836.11	602
Total		**4226**	**38304.73**	**56160**

Table 127 Investment Pattern across various categories in Small scale Industries and Tiny Industries District Industries Centre, Medak

Small scale Industries and Tiny Industries

According to D.I.C data, there were around 4,266 small scale industries set up in the district as of December of 2001. These industries had a capital investment of INR 3,830.5 million and employed 56,610 people.

4.13.3. Education Infrastructure and Utilization

According to Census 2011 provisional data, the average literacy rate of Medak is lower than the state figure by approximately 5 percentage points. The male literacy figure stands at 72.50 per cent, while female literacy was at 52.49 per cent against the statewide female literacy rate of 59.49 percent. Medak's proximity to Hyderabad should make it easier to develop educational infrastructure. Despite this, the district's literacy rate is still low compared to the state average. The district is also lagging behind due to the limited availability to vocational training institutes.Over the years, there has been steady improvement in the education system in Medak. At the intermediate college level, courses are available in science, arts, and commerce.

Schools	Total Number	No. of Enrollments
Primary Schools	2290	212508
Upper Primary Schools	621	96014
Secondary Schools	744	210676
Higher Secondary Schools	3	1919

Table 128 Education Statistics, Source: Statistical Abstract report, 2011

Educational Institutions	Total Number
ITIs	20
Polytechnics	13
Engineering Colleges	24
Medical/nurses Colleges	3
Pharmacy Colleges	11
B.ED Colleges	15
MBA/MCA colleges	34

Table 129 Education Statistics, Source: Statistical Abstract report, 2011

Medak is also struggling to keep its children in school. The gross enrolment ratio for classes I-V, is 115.29 percent, followed by 90.15 percent for classes VI – VIII, and 77.74 percent for classes VIII – X. In contrast, the state's ratios are 100.46 percent, 84.76 percent, and 69.51 percent, respectively.

The dropout rates established an 'increasing trend' over class I-X of 56.87 percent. Greater emphasis will be needed on quality of education, providing incentives to the best teachers, and developing better facilities for students, particularly girls.

4.13.4 VTI's demand across various trades in Medak district

Private VTIs dominate the vocational training system in Medak. There are a total of 20 vocational training institutes in Medak district out of which six are government ITIs and 14 are private. Together they offer a wide range of courses in various trades, mainly in the areas of production and operations to ensure a steady flow of skilled workers. All the trades and units are permanently affiliated to National Council of Vocational Training of Director General of Employment and Training.

At present, trades like those for fitters and Radio/ TV repair appeared to be more popular. It is also observed that seating capacity is higher in trades like those for fitters, turners, welders, and electricians. Youth who receive training in trades like electronics and Radio/ TV repair may be earning their livelihoods under the self-employed categories.

We conducted a primary survey in Medak to better understand the prospects for intervention. The survey included three government VTIs and seven private VTIs. One point that soon emerged was that despite Medak's large female working population, the VTIs offered few courses oriented towards women.

The courses offered by government VTIs in Medak exceed those offered by private VTIs. The details of the courses offered are represented in the table below:

Government VTI Trades		Private VTI Trades
COPA	Radio & TV Mechanic	Electrical
DM/Civil	Mechanic Diesel	Electronic Mechanic
Electrical	Refrigerator & AC Mechanic	Fitter
Fitter	Turner	Welder
Machinist	Welder	Mechanic Diesel
Wireman		

Table 130 Courses offered in government and private VTIs (sample)

The most popular trades appear to be those for electricians and fitters. The ten VTIs sampled provided 880 and 630 seats respectively for the two courses. In general, all courses enjoy at least 95 percent occupancy by both government and private VTIs.

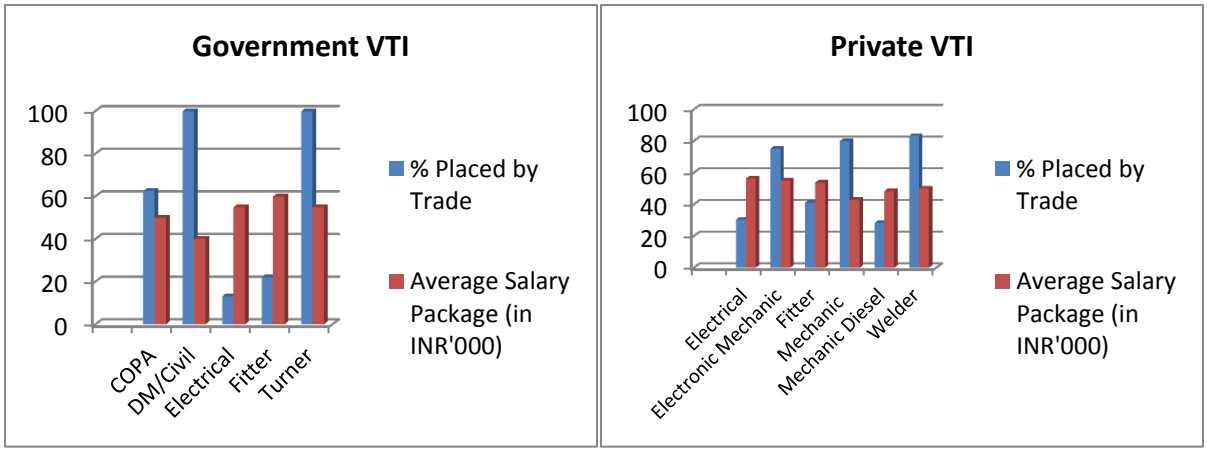


Figure 233 VTIs with placement percentage and average salary across trades

Average salaries and placement opportunities in both government and private VTIs were fairly good. The highest average salaries were offered for the fitter course was INR 6,000 in government VTIs. Salary levels for graduates of government VTIs was higher than at private VTI by an average of INR 450. Placements in DM/Civil and turner trades in government VTI were 100 percent. Both the government and private VTIs rigorously worked towards student placements. Most of the placements came through campus recruitment or from students' proactively approaching industry. No placements were done through the employment exchange.

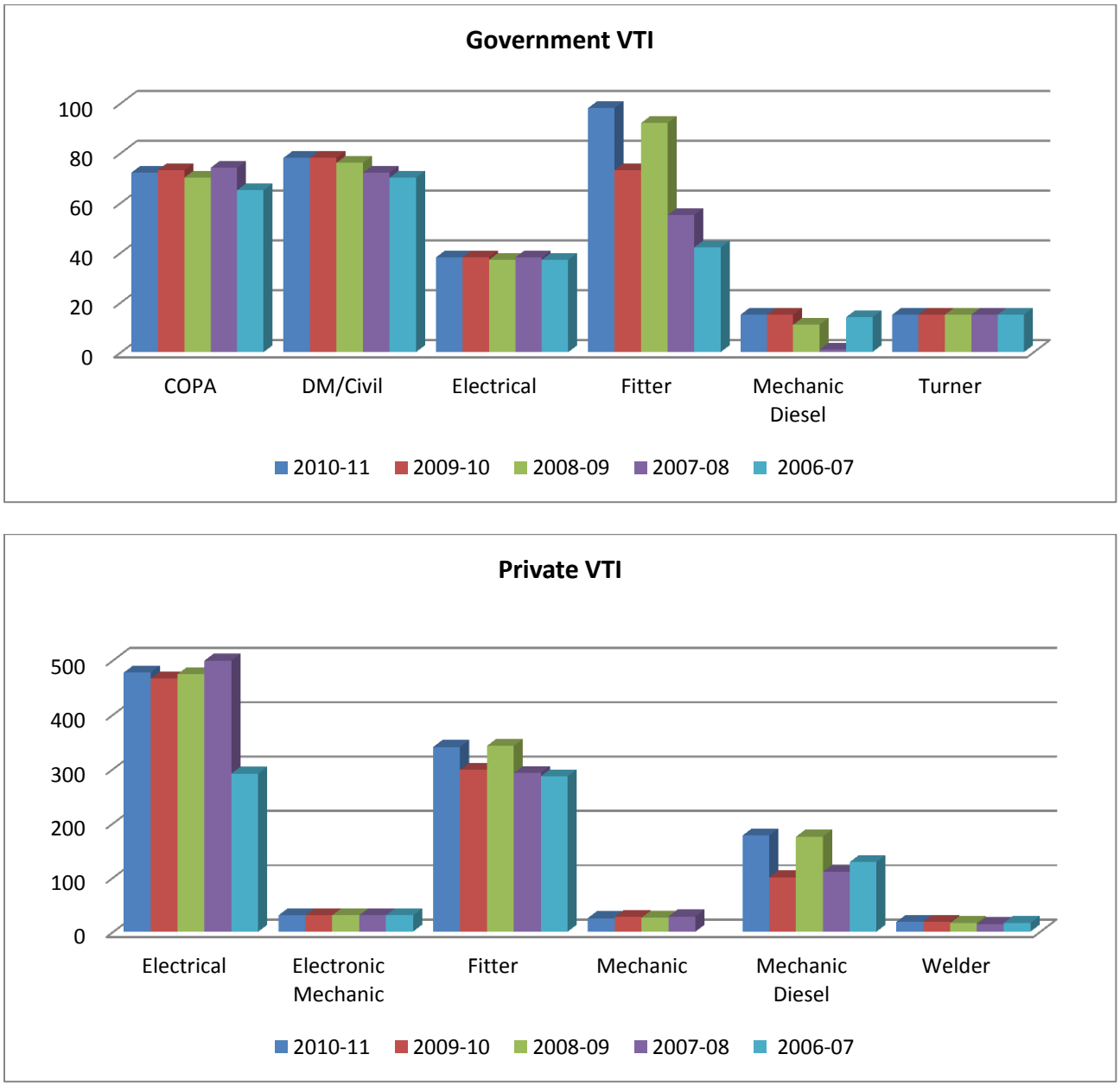


Figure 234 Trends of trained youths across trades over years in Government and Private VTIs

Looking at the trend, one can see that over the years, capacity in VTIs has not increased as per industry requirement. While the number of seats in the fitter trade has been increased in both

government and private VTIs, the private institutes surveyed have left not added new seats to the welding course.

Sl No.	Medak	Govt VTI	
	Positions	**Approved**	**Actual**
1	Managerial	15	10
2	Academics	53	50
3	Support Staff	21	19
Sl No.		**Private VTI**	
	Positions	**Approved**	**Actual**
1	Managerial	6	6
2	Academics	95	95
3	Support Staff	9	9

Table 131 Approved & Actual staff in VTIs

On bright spot is that staffing does not appear to be a critical problem. Both government and private VTIs appear to be able to meet most of their staffing requirements.

4.13.5 Placement & Absorption Trend

Candidates looking for jobs can also approach the government's employment exchanges or the Rajiv Yuva Kiranalu mission, which helps unemployed youth find work.

As the diagram shows, most candidates are absorbed by private institutes with direct industrial linkages or through direct placements. The Job Mela organized at the district level by the Rajiv Yuva Kiranalu, has had little success.

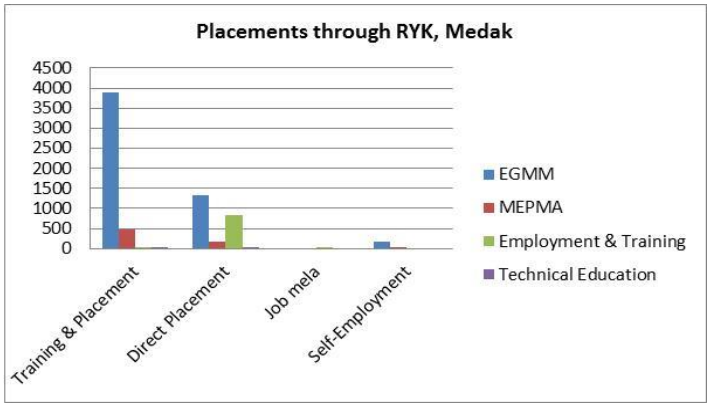


Figure 235 Placements through RYK, Medak

Medak district has just one employment exchange. In 2009-10 there were 71,637 candidate names in the live register. However, only around 60 of these candidates got placed, most of them being semi-skilled workers with just school education

4.13.6 Sector wise mapping of industries in Medak

The existing sectors in Medak have been mapped against the 20 high growth sectors identified by NSDC as presented in the table below. This necessarily factored in the concentration of small scale industries as the major parameter (due to small number of large and medium scale industries) and would also represent any new sector other than the listed sectors prevailing in Medak. Sector-wise analysis was made based on labor growth projections and emerging market demands. Medak enjoys proximity to Hyderabad along with a strong network of roads, making it a candidate for the development of large scale industries. As depicted in the table below, the automobiles sector has been playing a vital role in strengthening economic growth by attracting investments and offering better employment opportunities.

There has been substantial increase in workforce demand from sectors like agro-food, electronic hardware, chemicals and pharmaceuticals, and textiles.

Industry wise Sector Mapping					
NSDC (High growth sectors)	**Units**	**Employment**	**High**	**Medium**	**Low**
Agriculture and Allied	32	2299			
Automobile & Auto components	104	14875			
Food Processing (Food beverages and Tobacco products)	386	12392			
Electronics Hardware	353	31701			
Textiles and Garments	29	4310			
Tourism, Hospitality and Travel	1419				
Building and Construction					
Chemicals and Pharmaceuticals	237	25360			
Transportation/Logistics/Warehousing and Packaging	8	535			
Healthcare	81	228			
Education/ Skill Development	31	303			
Banking/ Insurance and Finance	217				
Manufacture of Wooden furniture	175	1875			
Paper and Publication	43	3011			
Rubber and Plastics					
Petroleum	4	184			
Mining & Quarrying	58	1955			
Minerals based industries	288	16266			
Service based industries (Repairs & maintenance: R&D)	10	1058			

High	Units>200, emp>1000 - all applicable
Medium	Units>100, emp>500 - all applicable
Low	Units>10,emp>30 - all applicable

Table 132 Sector wise mapping of Industry sectors in Medak

In order to better understand prevailing trends, a stratified sample of ten industries was selected for a survey. The selection ensured diversity among the industries.

Sectors	No. of Industries Sampled
Agriculture & Allied	1
Chemical & chemical products	4
Machinery, Electricals & Manufacturing	5
Mines, Metals & Minerals	1
Poly Products	2
Service Sector	1
Textile & Handloom	1
Grand Total	15

Table 133 Sector-wise sampled industries

When the employers were asked to rate their expectation from workers on a scale of five, those from two categories, agriculture and the services sector showed high desire for all workers characteristics with the rating of five on five. Employers from the poly products sector expressed low expectations from workers. With proximity to state capital, Hyderabad, demand based industries are likely to face stiff competition from other industrially advanced neighboring districts like Rangareddy, Hyderabad, and Nizamabad. Medak is among the more industrially developed districts of the state with moderate investments in large and medium scale industries. Ancillaries in the automobile sector is one prominent sector generating employment opportunities for skilled and semi-skilled youth in body fabrication, and the making of clutch plates, gear boxes, leaf springs, fiber components, indicator meters etc.. Some of the leading players include Mahindra & Mahindra Ltd, Dr. Reddy's Laboratories, and MRF Ltd. The state government is planning to set up IT & ITES based companies in Medak district, which are also likely to create job opportunities for skilled youths.

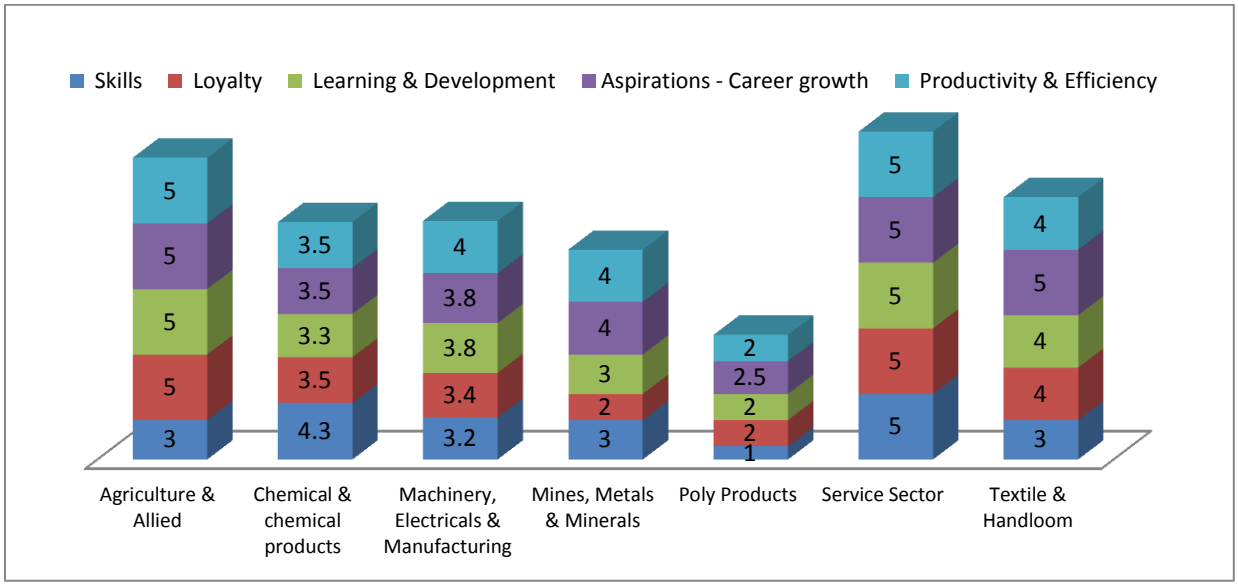


Figure 236 Employers demands in terms of expectations from workers

4.13.7 Composition of Workforce

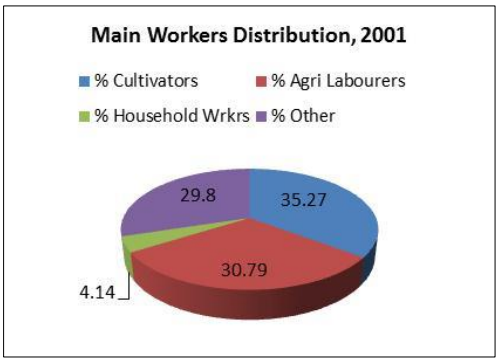


Figure 238 Workers employed in Organized & Unorganized sector ; Source: Deputy Commissioner of Labour, 2012

According to provisional Census 2011 data, the total workforce in Medak district is expected to rise by 8 percent against the 2001 data.

Significant proportions of the workforce form part of the non-workers population. As per 2001 Census figures, non-workers constituted about 51 percent of the workforce. There is a declining trend observed in the workforce engaged as agricultural laborers and cultivators, even as the workforce in other sectors has expanded.

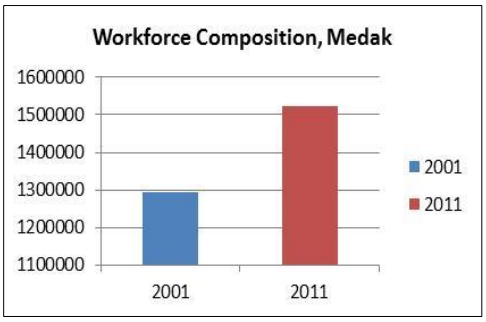
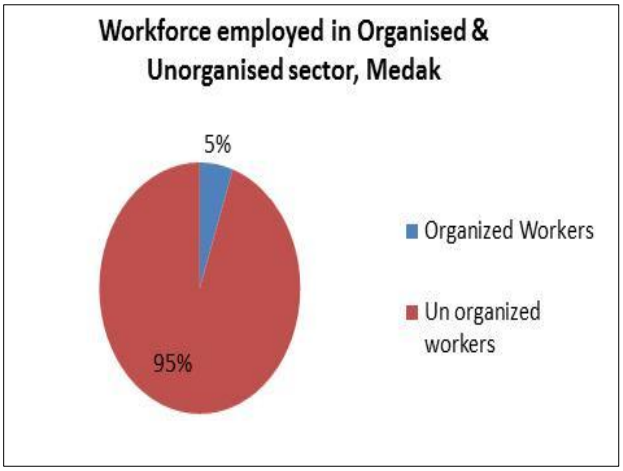


Figure 237 Projected Workforce; Source: Deputy Commissioner of Labour, 2012

Besides manpower constraints, Medak also has to deal with a relative scarcity of water. According to the fifth Economic Census data, there are 18,441 agricultural establishments (excluding crop production and plantation) and 69,731 are non-agricultural establishments like mining & quarrying, manufacturing firms, construction, retail, and services. Agricultural establishments grew at 118.06 percent per annum and non-agricultural establishments grew at 32.52 percent per annum during 1998 – 2005.



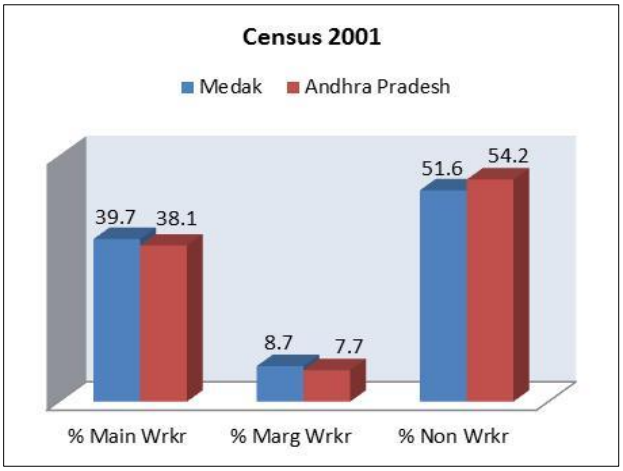


Figure 239 Workers into various economic activities
Figure 240 Workforce Trends in Medak

About 5 percent of the total workforce is employed in the formal or organized sector (defined as all public sector establishments and all non-agricultural establishments in the private sector with 10 or more workers). However, the remaining 95 percent work in the informal or unorganized sector. Thus, the unorganized sector plays a vital role in terms of providing employment opportunities.

The sex-wise and age-wise composition of workforce has been presented in the diagram below. The diagram also categorizes the workforce as either 'Main Workers', 'Marginal Workers', 'Non-Workers' or 'Seeking/available for work'.

4.13.8 Projected Workforce and Demand

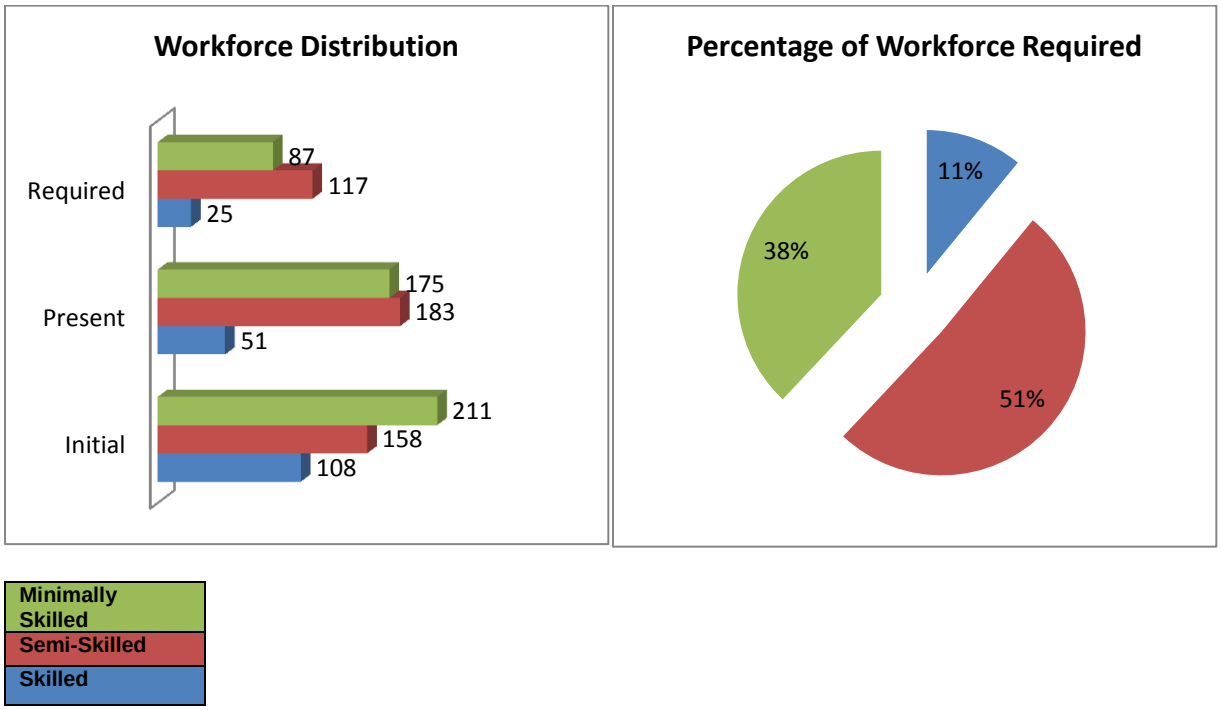


Figure 241 Workforce distribution in sample industries in terms of skilled as per primary survey

We surveyed a total of 15 industries representing seven major sectors in Medak district. The figure above shows availability of skilled, semi-skilled and minimally skilled workers from the beginning to the present time along with projected requirements. Twelve of the sampled industries across four major sectors, chemicals, machinery, poly products, and textiles, could provide their present skilled workers strength. The agriculture sector could not provide details of their skilled workers. Also the mines sector and the service sector report that they have not retained their skilled worker strengths.

Only two sectors, agriculture and machinery, reported any ability to hire more semi-skilled workers. For minimally skilled workers, only the agriculture and textiles sectors report retention and an increase in their worker strengths.

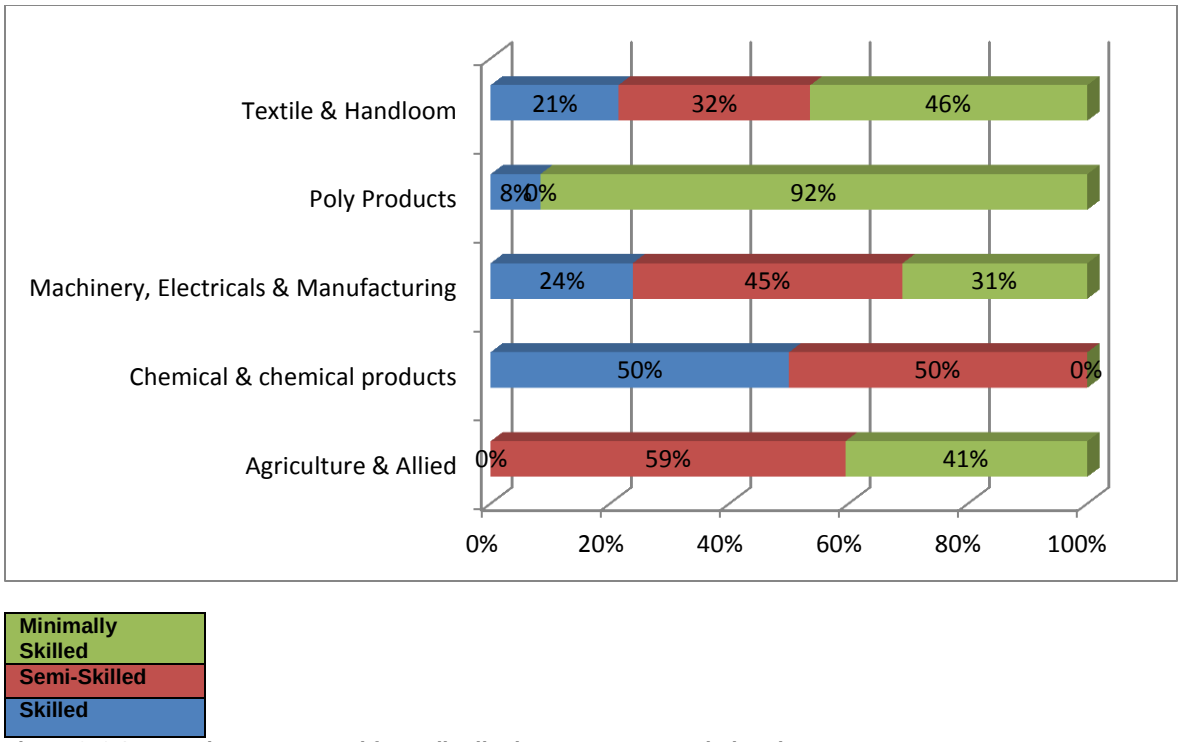


Figure 242 Sector wise current workforce distribution pattern across industries

Among the surveyed sectors, the proportion of skilled manpower is far less than that for semi-skilled and minimally skilled manpower. Industries from the machinery and services sector reported the potential to absorb more skilled workers. The agricultural sector has expanded its semi-skilled staff strength. On the other hand, the chemicals and machinery sectors show a decline in the overall number of employees. The textiles sector shows no changes in the number of employees.

Incremental manpower demand over the years till 2021-22

The table below indicates the expected manpower demand across various sectors till 2022. The district will require highly skilled manpower for its manufacturing units. Other sectors with high manpower demand will be construction, communications and BFSI. A large section of manpower is expected to migrate from agriculture and livestock sector to other growing industries in secondary and tertiary sector.

	2012-2017			2012-2022		
Industry	**Skilled**	**Semi-Skilled**	**Minimally Skilled**	**Skilled**	**Semi-Skilled**	**Minimally Skilled**
Agriculture & Allied Activities	-2023	-10117	-38443	-6901	-34504	-131117
Mining & Quarrying	1429	682	1458	1360	1069	1458

Construction	15425	19381	10617	13753	14735	22004
Tourism, Travel & Hospitality	111883	-8927	-15565	47699	21465	14310
Transportation, Logistics, Warehousing & Packaging	6246	3182	1061	6165	3141	1047
IT & ITES Sector	6534	684	125	6766	708	129
Banking & Financial Services Insurance	11928	964	-71	8380	3771	2514
Real estate	-238	269	-2964	-1694	-1815	-2710
Other Services	6756	-5823	-5304	-4515	-2039	-1339
Electricity, gas & water supply	-118	-68	-49	-118	-71	-47
Food processing	4729	2249	2480	4729	2837	1892
Chemicals & Pharmaceuticals*	15648	8442	7205	15648	9389	6259
Coke, refined petroleum and nuclear fuel*	-394	-229	-165	-394	-236	-158
Rubber and plastic products*	34276	19226	15050	34276	20566	13711
Metals & non metallic products*	2203	913	1290	2203	1322	881
Textile & leather	2659	1344	1315	2659	1595	1064
Wood & Paper products	2045	1118	927	2045	1227	818
Total	218987	33290	-21034	132060	43159	-69285

Table 134 Sector wise incremental workforce demand in district over the years till 2021-22

4.13.9 Skill Gap Analysis

The skill gap analysis was performed by undertaking a primary research on the employers through the survey instrument. A structured questionnaire was designed to map the current and the future skill requirements of the industries identified in the district on the basis of manpower absorption and production in high growth industries. The analysis factored in industry linkages with vocational training institutes, employment exchange and with other sources for workforce absorption and retention. It highlights the mismatch between industry skill requirements and the skill pool emerging. The incremental skill gap for the district for 2012-17 and 2017-22 based on projections is represented in the table below.

Overall, the supply of minimally skilled labor exceeds demand over all the years examined. However, the supply for skilled and semi-skilled manpower remains low.

Incremental Workforce Demand & Supply Gap						
	2012-2017			2012-2022		
Sectors	**Skilled**	**Semi-Skilled**	**Unskilled**	**Skilled**	**Semi-Skilled**	**Unskilled**
Demand	60249	33477	135109	192462	62942	140375
Supply	6915	5801	111379	11233	20612	241121
Gap	53334	27676	23730	181230	42331	-100746

Table 135 Incremental Skilled/ Semi-skilled & Minimally skilled workforce trend 2012-2022

Some of the important findings were as follows:-

1. The issue of land emerged as one of the most important factor endowment for further industrial growth.
2. Emerging engineering industries will require far more skilled manpower. Industries believed that proximity to Hyderabad improves growth prospects.
3. Demand for skilled manpower in small and medium industries is high and expected to grow more. The state also needs to promote self-employment and entrepreneurship through beneficial schemes and training courses.
4. Industry requires candidates from vocations like electrician, fitters, plumbers, and mechanics.
5. Demand for skilled workers would be increasing over next three to five years. Major employment opportunities would be perceived in the automobiles, mechanical engineering and electrical hardware sectors.

4.13.10 Youth Aspirations

The youth survey study was primarily carried out through a survey. Structured questionnaires were designed to capture youth aspirations and perceptions across the categories of employed, self-employed, unemployed, and trainees. In-depth interactions were held with respondents to provide deeper insight and understanding into their aspirations and perceptions.

Only 6.7 percent of the respondents were college educated. The remaining 93.3 percent had only completed high school education. All the respondents were from registered VTIs, though only five percent belonged to private VTIs.

Unlike in other districts, no strong trade preferences emerged. Candidates from the courses for electricians tended to prefer self-employment. A large number of fitters were not absorbed by the industry, and thus were unemployed

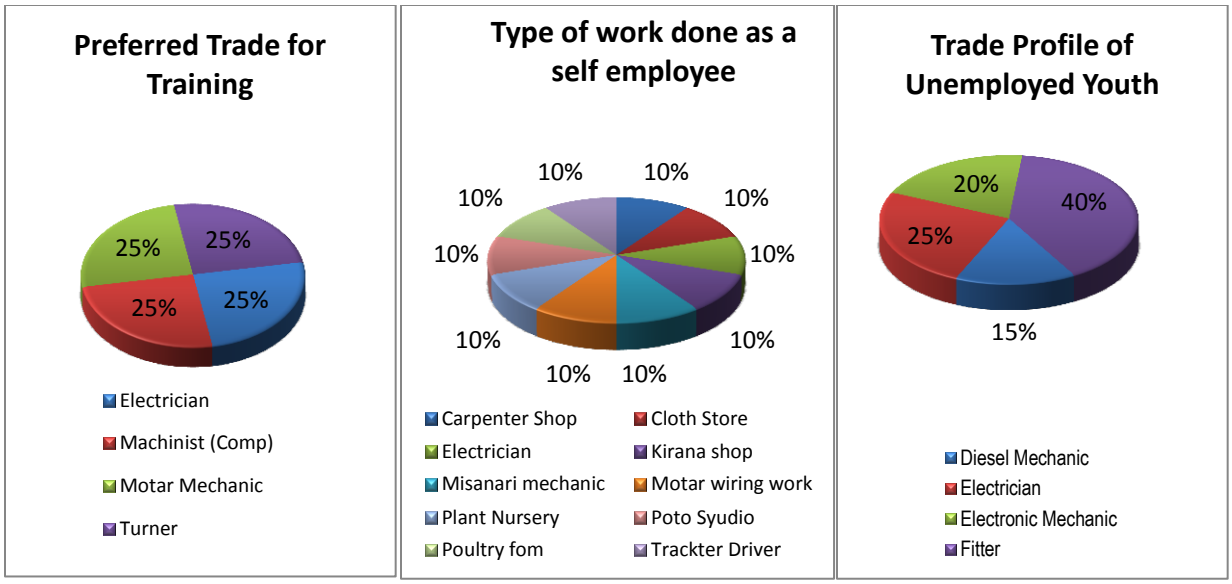


Figure 243 Profile of respondent s (Trainee, self employed and unemployed youth) by trade in sample of Medak district.

Parameters considered by District's youth while opting for vocational training

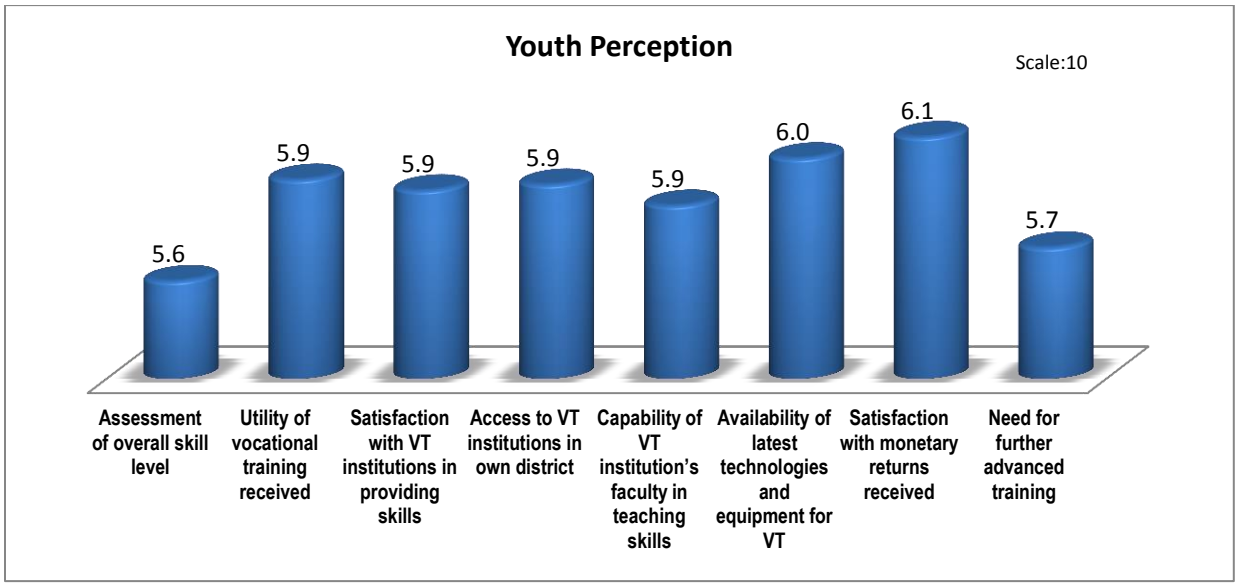


Figure 244 Perception, needs and aspirations of youth in Medak

The sampled youth were also asked to rate their experiences with VTIs on a scale of 10. Dissatisfaction with current skill levels was clear, with respondents giving it a low rating of 5.6. In general, the respondents rated the existing training facilities at a much lower level than the ratings given in other districts. They also did not see much purpose in training any further. This was despite the fact that most of the youth were not satisfied with their current salary levels of around INR 7,000 per month. Indeed, they expected an increment of INR 3,700 on average even though none of the respondents had received an annual pay increase. Overall, the respondents rated the utility and quality of vocational training quite poorly.

4.11.1 Recommendations: Skill Development Eco System

Medak district is expected to see growth in manufacturing sector. The state government and NSDC should encourage training in courses in for trades like hospitality, travel, retail, IT/ITES, supply chain management, and cold storage. There should also be more courses in the servicing and repair of automobiles and agricultural equipment.

Table 136 Key demand sectors in Medak

Sectors	Growth Opportunities
Rubber and plastic products	• The district in houses large rubber and plastic products manufacturing industries. • As per DIC data, there are approx. 289 industrial units present in this sector in the district with an investment of approx. INR 4321.7 lakh.
Chemicals & pharmaceuticals	• Chemicals and pharmaceuticals industries are one of the major employers in the district. • In terms of anticipated employment, the industry will require skilled and semi-skilled workforce in future to meet its requirements. • Currently, the current training capacity needs to be built in many folds to meet future requirements of this sector.
Construction	• The sector is expected to have second highest demand for manpower, approx. 80,000 incremental manpower requirement people from 2012 till 2021
Small scale manufacturing industries such as food processing, textile, auto ancillary etc	• Manufacturing sector contributed highest (83 percent) to the tertiary sector DDP in 2009-10. • Registered manufacturing units witnessed a growth rate of approx. 12.2 percent from 2004-05 till 2009-10. • The district has several clusters of textiles and auto components. • Andhra Pradesh Industrial Infrastructure Corp. has announced two industrial parks for general engineering and auto ancillary sector in the district.

The key stakeholders' contribution to achieve the targets would be as follows:

State: Medak has quite low literacy rates as compared to state's average. The district is also lagging behind due to limited availability of vocational training institutions.

Action Plan:

- Major focus of the State should be encouraging courses which target youth with low educational qualifications and provide them with required certifications to enable them to get absorbed in formal sector.
- State needs to build center of excellence for various skill sets in order to ensure the quality as required by the industry.
- State also needs to encourage enrolment of girls in vocational training by introducing favorable schemes and better infrastructure such as girls' hostels etc.

Training Partners:

Action plan:

- Training partners should focus on developing short term courses in collaboration with the industry in the upcoming sectors such as retail, pharmacy, automobile repairing etc.
- Target segment for training providers will be population with minimal educational qualifications. Training providers should introduce level based courses, encouraging trainees to take up-skilling courses after basic courses.
- Identify upcoming Industries and build customized courses as per their requirements.

Industries: Currently, there are no linkages between the industry and training providers. Thus, industry is unable to absorb the current manpower because of lack of required skill sets.

Action Plan:

- Collaborate with skill development institutes for updating course content & creating linkages for placement.
- Industry needs to reward skilled manpower with higher wages. Promotions norms should be formed based of higher skill levels, encouraging the current semi-skilled and minimally skilled workers to take up-skilled courses.
- Industry should also focus on building new curriculum for automobile ancillary industries. Focus should be on providing training infrastructure such as machinery and teachers to the training partners to ensure better delivery.

NSDC:

Action Plan:

- NSDC should focus on increasing linkages between training providers, state and industry.
- Focus should be on improving the existing quality of the training infrastructure. Regular assessment of training providers should be undertaken.

4.14 Nalgonda

This section highlights the economic base of Nalgonda and examines its occupational structure. It identifies the high impact industries and skills needed to match the expected growth.

The latter section presents the projected workforce demand and supply in the coming years and the optimization plan for the district.

4.14 Nalgonda

4.14.1 Nalgonda District Demographic Profile

Nalgonda is primarily an agricultural district and farming is the main occupation for 70 percent of its population. The district is divided into 59 mandals, which are grouped into four revenue divisions: Nalgonda, Bhongiri, Miryalaguda, and Suryapet. The land under cultivation forms 46.73 percent of the total geographical area. Nalgonda is a major producer of cement in Andhra Pradesh due to the availability of limestone. Its human development index stands at 0.481 compared to the state average of 0.537. The district's urban population rate of 19 percent in 2011, is also the third lowest in the state, even though it is a considerable improvement over the figure of 13.32 percent from 2001. However, the district reports a higher per capita income of INR 34,766 compared to Andhra Pradesh's average of INR 37,061 at constant prices 2004-05.

Table 137 Nalgonda district at a glance

Nalgonda at a Glance				
Population	**Nalgonda District**		**Andhra Pradesh**	**Remarks**
	Provisional Census 2011	**Census 2001**	**Provisional Census 2011**	
Total Population	3483648	3247982	84665533	
Total Population - Male	1758061	1651990	42509881	
Total Population - Female	1725587	1595992	42155652	
Population Growth	7.26%	13.88%	11.10%	
Area Sq. Km	14240		275100	
Density of Population (Density/Area sq.Km)	245	228	308	
Proportion of Andhra Pradesh population	4.11%	4.26%		
Decadal growth of population (2001 - 2011)	7.26%	13.88%	11.10%	
Literacy rate	65.05	57.15	67.66	
Male Literacy	74.93	69.23	75.56	
Female Literacy	55.05	44.68	59.74	
Sex ratio (per 1000)	982	966	992	
Worker population participation rate		49.1	45.7	Census 2001
Cultivators to total workers		25.5	22.52	Census 2001
Agriculture laborer in workforce		42.1	39.64	Census 2001
Household workers		4.40	4.71	Census 2001
Other industry and services		28.0	33.13	Census 2001

As per provisional Census 2011 data, Nalgonda accounts for population of 3.483 million, with a sex ratio of 982 females per 1000 males. In 2001 that figure was 966. The total area of the district is 14,240 sq km and accounts for 4.11 percent of the total area in Andhra Pradesh.

Nalgonda's literacy rate was 65.05 percent as of 2011 compared to 57.15 percent in 2001. Broken up by gender, around 74.93 percent of males and 55.05 percent of females are literate.

Nalgonda's total workforce participation is 49.1 percent. The population of working males is 59.2 percent, against the female working population of 43.1 percent. However, it is pertinent to note that the proportion of the female working population in Nalgonda, which is 8.2 percent, is higher than the state figure.

Out of the total working population, main workers comprise 43.35 percent of the total population followed by marginal workers at 10.72 percent and non-workers at 45.93 percent. Out of the population of main workers, 34.99 percent are agricultural laborers followed by other industries at 30.98 percent, and cultivators at 29.64 percent. Household industries accounted for the remaining 4.39 percent. Between agricultural laborers and cultivators, 64.63 percent of main workers are involved in agriculture.

4.14.2 Economic Profile

The district's Gross district domestic product (GDDP) has grown at the growth rate (CAGR) of 10.53 percent from 2004-05 till 2009-10. In 2009-10, tertiary sector contributed approx. 42 percent to the GDDP primarily due to the contribution of trade, hotels and restaurants sector followed by secondary sector which contributed approx. 30 percent to the district's GDDP.

The chart below indicates contribution of primary, secondary and tertiary sector to the GDDP from 2004-05 till 2009-10.

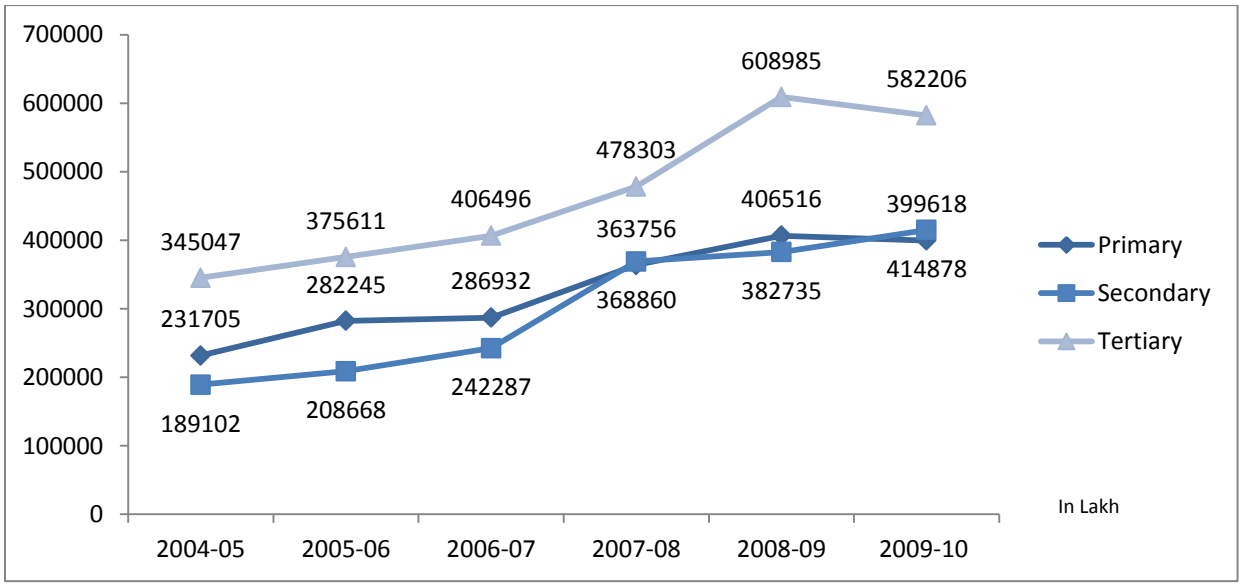


Figure 245 Sector level contribution to the GDDP, Nalgonda

Primary Sector

The primary sector (agriculture, forestry &logging, livestock, fishing and mining & quarrying) contributed approx. 28 percent to the GDDP in 2009-10. Agriculture sector remained as the highest contributor to the primary sector, contributing approx. 65 percent to the primary sector in 2009-10, followed by livestock (25 percent), mining and quarrying (4 percent), forestry and logging (3 percent) and fishing (3 percent).

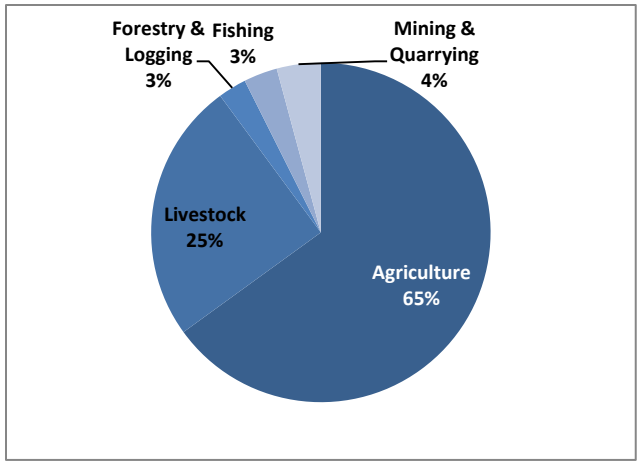


Figure 246 Primary sector contribution to GDDP, 2009-10

The CAGR for primary sector is approx. 9.51 percent from 2004-2005 till 2009-10 with agriculture registering high growth rate (CAGR of 8. 66 percent) from 2004-05 till 2009-10.

Secondary Sector

The contribution of the secondary sector to district GDP in 2009-10 was approximately 29 percent. The sector has shown a CAGR of 13.99 percent from 2004-05 till 2009-10, primarily due the contribution of manufacturing.

High growth sub-sectors within this sector are construction (CAGR 12 percent) and registered manufacturing (23 percent) from 2004-05 till 2009-10.

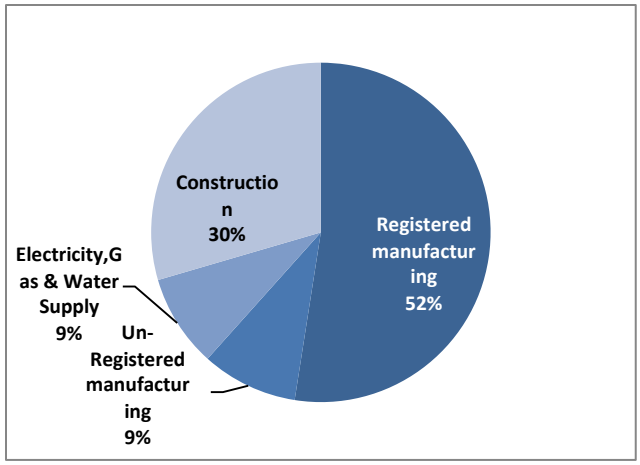


Figure 247 Secondary sector contribution to GDDP, 2009-10

Tertiary Sector

The contribution of the tertiary sector has been significant to the district's economy over the years. In the year 2009-10, the contribution of the tertiary sector was approx. 41 percent to the district's GDDP. The sector has witnessed CAGR of 9.11 percent from 2004-05 till 2009-10, primarily due the trade, hotels and restaurants sector.

Three sectors which have shown a high CAGR from 2004-05 till 2009-10 are trade, hotels and restaurants sector (approx. 13

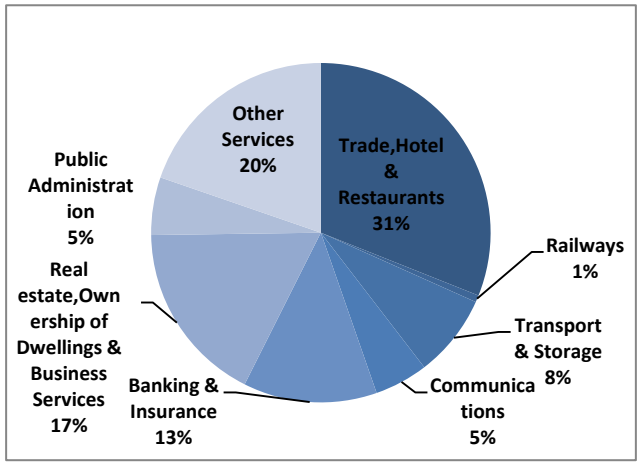


Figure 248 Tertiary Sector contribution to GDDP, 2009-10

percent), communications (15 percent) and BFSI (approx. 14 percent). Real estate and other services grew (CAGR) by approx. 5 percent from 2004-05 till 2009-10.

Industry Mapping

The district has significant agricultural resources, helping agro-based industries thrive. Nalgonda district is also a major cement producer thanks to the availability of limestone in nearby districts. Industry in Nalgonda contributes 4.02% to Andhra Pradesh's GDP at constant prices from 2004-05 to 2009-10.

Nalgonda's economy is growing well. There are six industrial areas in the district. Major industries are silk, leather, cotton, sugar, jaggery, and cement. Agriculture is one of Nalgonda's main occupations. The most common crops are paddy, pulses, millets, and oilseeds. The district also has resources of limestone, clay, and feldspar. Finally, the Bibinagar-Guntur and Secunderabad-Kazipet railway lines are key arteries for transportation in and out of Nalgonda.

Large & Medium Industries

Nalgonda district has 84 large and medium industries in sectors like power generation, cement, rice milling, plastics, drugs and drug intermediaries, engineering, explosives, sponge iron, and chemicals. They have a total investment of INR 28443.72 million and 13,774 employees. There is a huge demand for industries based on plastics, leather, and textiles.

Small Scale Industries

Nalgonda district has 250 small scale industries with an investment of INR 9666.8 million and 1, 15,483 employees. Nalgonda district is famous for cement units, textile units, rice mills and pharmaceuticals units. The district also exports Feldspar granite in raw forms and different color of lime stone slabs and quartz to China and Japan.

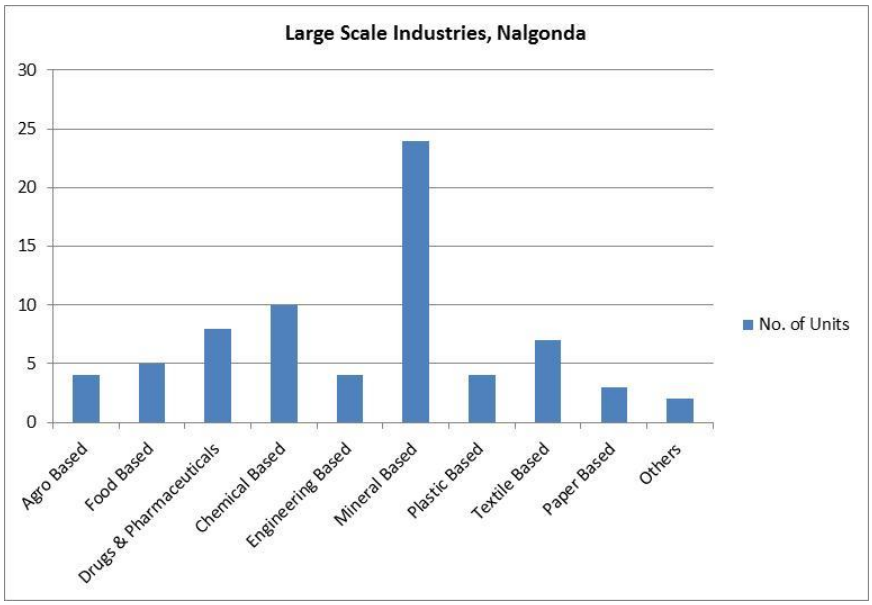


Figure 249 Large Scale & Medium scale Industries, DIC

4.14.3 Education Infrastructure and Utilization

Nalgonda has ranks 10th in number of primary schools in the district and has much fewer high schools and higher secondary schools than most districts. Although, the district possesses a well-established infrastructure for engineering colleges, not many polytechnic colleges are present in the Nalgonda.

Schools	Total Number	No. of Enrollments
Primary Schools	3031	263004
Upper Primary Schools	528	82675
Secondary Schools	1117	258957
Higher Secondary Schools	2	1011

Table 138 Schools with enrolment details Source: Statistical Abstract, Andhra Pradesh - 2011

As per Census 2001, the total number of graduates and above in Nalgonda district was 85,612. It is interesting to note that out of the total population of graduates and above, 80 percent were males. All in all, Nalgonda's graduates make up 3.02 percent of Andhra Pradesh's total population.

Like many other district, Nalgonda struggles to keep children in school. The gross enrolment ratio for classes I-V is 100.90 percent followed by 87.03 percent for classes VI–VIII, and 80.11 percent for classes VIII–X. In contrast, the state's ratios are 100.46 percent, 84.76 percent, and 69.51 percent respectively. The dropout rates establish an increasing trend over classes I-X of 51.86 percent.

Educational Institutions	Total Number
ITIs	24
Polytechnics	12
Engineering Colleges	44
Medical/nurses Colleges	27
Pharmacy Colleges	21

Table 139 Education Statistics; Source: Statistical Abstract, Andhra Pradesh – 2011

For technical education, there are a total of 44 private engineering colleges and no government colleges. However, Nalgonda district has the fourth highest number of engineering colleges in the state. These colleges offer a variety of courses and have a combined intake capacity of approximately 9,461 students per annum. Major courses offered include computer science and engineering courses in electronics, telecom, computers, and instrumentation besides mechanical engineering, and electrical engineering. There are 12 polytechnic colleges with total intake capacity of 1,850 students per annum. Nalgonda also has the fifth highest number of pharmacy colleges in the state.

4.14.4 VTI's demand across various trades in Nalgonda district

There are 24 vocational training institutes in the district. The overall intake of all ITIs and ITCs is around 5,484 students per annum. Out of these vocational training institutes, only six are government ITI and the rest are private ITCs. These institutes impart training in various trades including those for electricians, fitters, diesel mechanics, plumbers, instrument mechanics, welders, carpenters, dressmakers, masons, radio and television mechanics, turners, and stenographers. New trades are introduced based on emerging industry demand. At present, courses like those for fitters and electricians followed by welders are in demand.

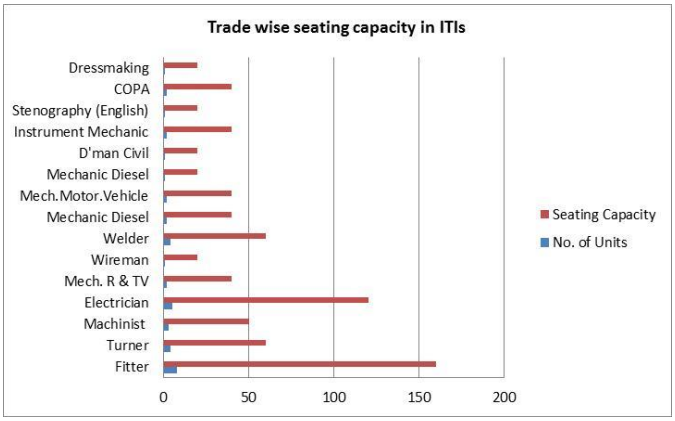


Figure 250 Trade wise seating capacity in ITIs

Government VTIs offered far more courses than the private VTIs. Government VTIs also have greater intake. Though there are a variety of courses, only the one for dressmaking is oriented towards women.

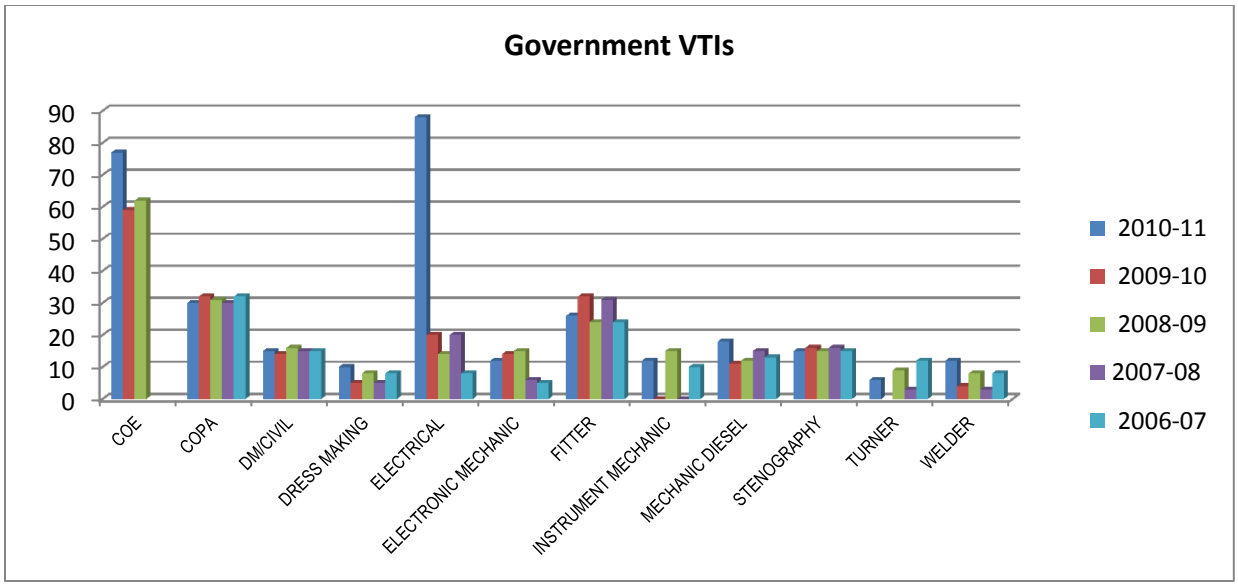
The details of the courses offered in the VTIs of Nellore are represented in the table.

Government VTI Trades		Private VTI Trades
COE	Electronic Mechanic	Cutting & Sewing
COPA	Fitter	DM/Civil
DM/Civil	Instrument Mechanic	Electrical
Dress Making	Mechanic Diesel	Fitter
Electrical	Machinist	Health Sanitary Inspector
Stenography	Turner	Mechanic Diesel
Welder		Plumber

Table 140 Courses offered in government and private VTIs (sample)

The most popular trades in both government and private VTIs were those for electricians followed by fitters and diesel mechanics. The plumbing course did not attract many students at private ITIs. One new course, titled Health Sanitary, also failed to attract many students. Seats in government VTIs were occupied in all courses barring a few vacancies in the COE and fitter courses.

The average salary of students in both private and government VTIs was on an average around INR 5,500. The percentage of the students placed through VTIs was compared to other districts. In the electrical trade, 100 percent and 66.7 percent of the students were placed in government and private VTIs respectively. Placements in both government and private VTIs were largely through campus interviews. The employment exchange didn't play much of a role in student placements.



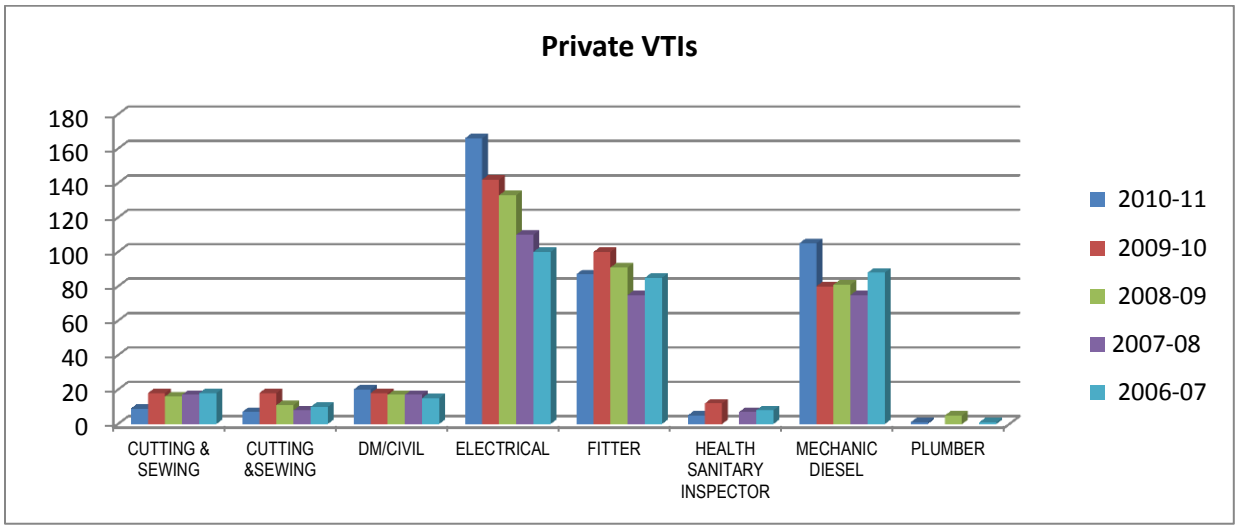


Table 141 Number of students trained in Government and Private VTIs over years

S No.	Nellore	Govt VTI	
	Positions	**Approved**	**Actual**
1	Managerial	16	7
2	Academics	50	33
3	Support Staff	16	9
S No.		**Private VTI**	
	Positions	**Approved**	**Actual**
1	Managerial	12	12
2	Academics	48	48
3	Support Staff	10	10

Despite some of their strengths, governments VTIs were largely understaffed in all positions. This hampers the smooth functioning of the institutes and the quality of training.

Table 142 Staffing at sampled ITIs

4.14.5 Placement and absorption trend

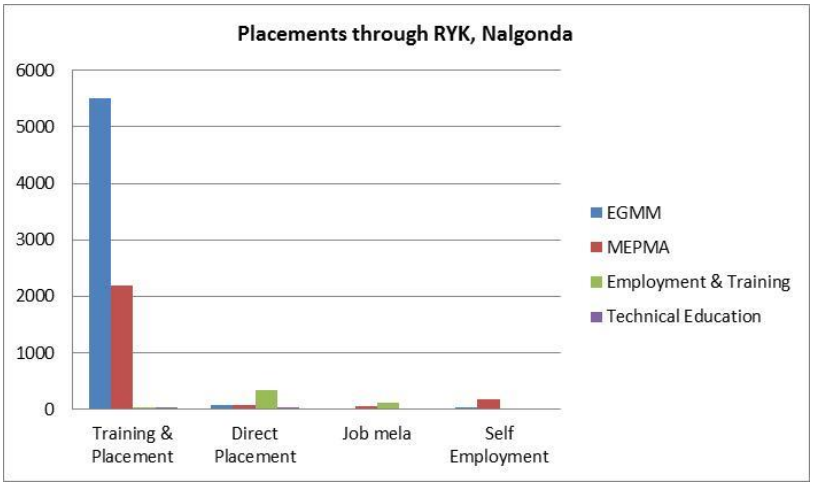


Figure 251 Placements through RYK; Source: RYK state level placements monitoring report, June 2012

Nalgonda district has just one employment exchange. The number of candidate names in the live register during 2009-10 was 57,725. However, only 81 of them were actually placed.

Besides the employment exchange, candidates can also apply through theRajiv Yuva Kiranalu, which helps unemployed youth get placed. However, the Job Mela organized at the district level as a part of the ongoing Rajiv Yuva Kiranalu, has had very little success. As the diagram shows, most of the rural and urban unemployed youth are absorbed by private institutes with direct industrial linkages offering training and development. However, a marginal absorption trend can be seen when it comes to direct placements by industries offering job specific training.

4.14.6 Sector wise mapping of industries in Nalgonda

Nalgonda is an important industrial and commercial center in Andhra Pradesh and demand for workers is growing. Sectors like construction and food-based industries would be the prime movers of development in Nalgonda in the near future and would provide significant employment opportunities.

Industry wise Sector Mapping					
NSDC (High growth sectors)	**Units**	**Employment**	**High**	**Medium**	**Low**
Food Processing (Food beverages and Tobacco products)	1669	33931			
Electronics Hardware	8	636			
Textiles and Garments	14	708			
Chemicals and Pharmaceuticals	132	10584			
Healthcare	87	118			
Education/ Skill Development	30	351			
Banking/ Insurance and Finance	231				
Manufacture of Wooden furniture	42	261			
Coal based industry	1	590			
Cement based industry	3	827			
Paper and Publication	16	660			
Rubber and Plastics	24	1316			
Minerals based industries	68	4792			
Service based industries (Repairs & maintenance: R&D)	17	1170			

High	Units>200, emp>1000 - all applicable
Medium	Units>100, emp>500 - all applicable
Low	Units>10,emp>30 - all applicable

Table 143 Sector wise mapping of Industries; Source: DIC

The above spread of industries clearly indicates the secondary and tertiary sectors are growing in prominence. There is huge potential for growth in the agro-food industry, coal, chemicals, pharmaceuticals, and services based industries. There is a marginal trend indicating greater demand from emerging sectors like the wood industry, petroleum, rubber, plastics, and paper printing. However, there is substantial demand for workers in sectors like minerals, forest-based industries and services. Some of the leading players in this district are Heritage Foods India Ltd., Bambino Agro Industries Ltd., and Dr. Reddy's Laboratories.

4.14.7 Composition of workforce

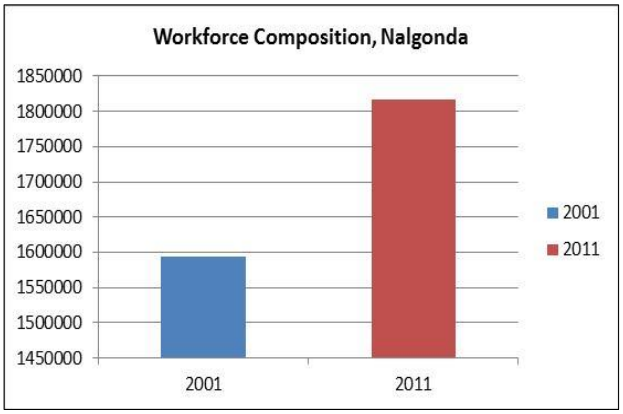


Figure 252 Category wise distribution of main and marginal workers; Source Census 2001

The working population in Nalgonda district is expected to rise by 13 percent against the Census 2001 data. It is pertinent to note that the total workforce participation rate in Nalgonda is 49.1 percent. The total male working population is 59.2 percent against the female working population of 43.1 percent. However, the proportion of the female working population in Nalgonda, which is 8.2 percent, is higher than the state figure.

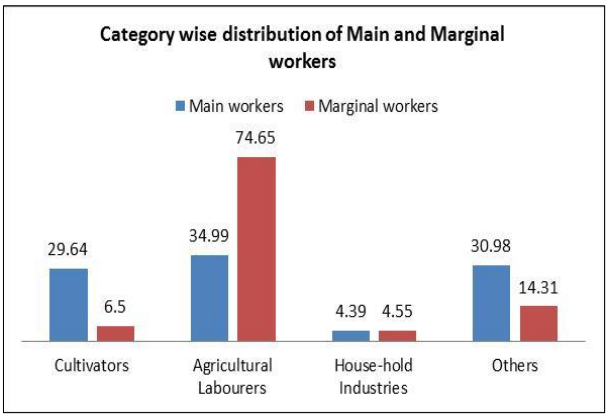


Figure 253 Workforce Composition; Source: Deputy Commissioner of Labour, 2012

Out of the total working population, main workers comprise 43.35 percent, while marginal workers account for 10.72 percent and non-workers amount to 45.93 percent. Out of the population of main workers, 34.99 percent are engaged as agricultural laborers, followed by other industries at 30.98 percent, cultivators at 29.64 percent, and by household industries at 4.39 percent. The majority of main workers are involved in agriculture and many of the rest are engaged in industries like tourism, hospitality, and construction.

Indeed, it has been estimated that the major proportion of the workers in the age group of 15 - 59 years is fall into the category of main workers. Interestingly, among the non-workers and marginal workers, females in the age group of 15-59 outnumber males.

4.14.8 Projected Workforce Demand

This section of the report assesses the projected workforce demand by applying the proposed projection model. It studies investment patterns across sectors and their contribution to the overall growth of the state economy. The table below indicates the incremental workforce requirement in the district till 2021-22. The district will witness one of the highest incremental manpower demands due to growing industries.

Growth sectors include manufacturing, agriculture & allied industries, tourism, travel & hospitality and construction.

	2012-2017			2012-2022		
Industry	**Skilled**	**Semi-Skilled**	**Minimally Skilled**	**Skilled**	**Semi-Skilled**	**Minimally Skilled**
Agriculture & Allied Activities	7298	36488	138654	3783	18917	71884
Mining & Quarrying	-583	-856	-691	-980	-770	-1049
Construction	17411	23024	6336	11878	12726	19004
Tourism, Travel & Hospitality	103290	5414	-3051	65713	29571	19714
Transportation, Logistics, Warehousing & Packaging	642	327	109	-30	-15	-5
IT & ITES Sector	4096	429	78	3970	416	76
Banking & Financial Services Insurance	9545	22	-678	5388	2424	1616
Real estate	-1890	-1398	-6115	-4197	-4497	-6716
Other Services	-4536	-11061	-8750	-18020	-8145	-5326
Electricity, gas & water supply	828	470	357	828	497	331
Food processing	3613	2018	1595	3613	2168	1445
Chemicals & Pharmaceuticals*	3258	1530	1728	3258	1955	1303
Coke, refined petroleum and nuclear fuel*	165	93	72	165	99	66
Rubber and plastic products*	-829	-512	-317	-829	-497	-332
Auto & Auto components*	933	504	429	933	560	373
Metals & non metallic products*	12239	6704	5535	12239	7343	4896
Textile & leather	-3418	-2050	-1368	-3418	-2051	-1367

Wood & Paper products	-519	-303	-216	-519	-311	-208
Total	151542	60842	133707	83774	60388	105705

Table 144 Projected incrmental workforce (demand) requirement till 2022 across all the sectors- Nalgonda

4.14.8 Skill Gap Analysis

The skill gap analysis was performed by undertaking a survey instrument. A structured questionnaire was designed to map the current and the future skill requirements of industry.

The analysis factored in industry linkages with vocational training institutes, the employment exchange, and with other sources for workforce absorption. It highlights a significant mismatch between industry skill requirements and the skill pool emerging. Overall, the district will witness high incremental demand due to growth in industrial sector.

Incremental Workforce Demand & Supply Gap						
	2012-2017			2012-2022		
Sectors	**Skilled**	**Semi-Skilled**	**Unskilled**	**Skilled**	**Semi-Skilled**	**Unskilled**
Demand	151542	60842	133707	83774	60388	105705
Supply	14252	10763	155334	6261	18239	144520
Gap	137290	50079	-21627	77513	42149	-38814

Table 145 Projection of Incremental Manpower requirements till 2017 across various Sectors

4.14.9 Youth Aspirations

The youth survey study was primarily undertaken by conducting a primary survey. A structured questionnaire was designed to capture youth aspirations across the categories of employed, self-employed, unemployed, and trainees.

Out of those surveyed, 60.4 percent were college educated and the remaining 39.6 percent were high schools graduates. In-depth interactions were held with respondents across the various categories of youth to provide deeper insight and understanding.

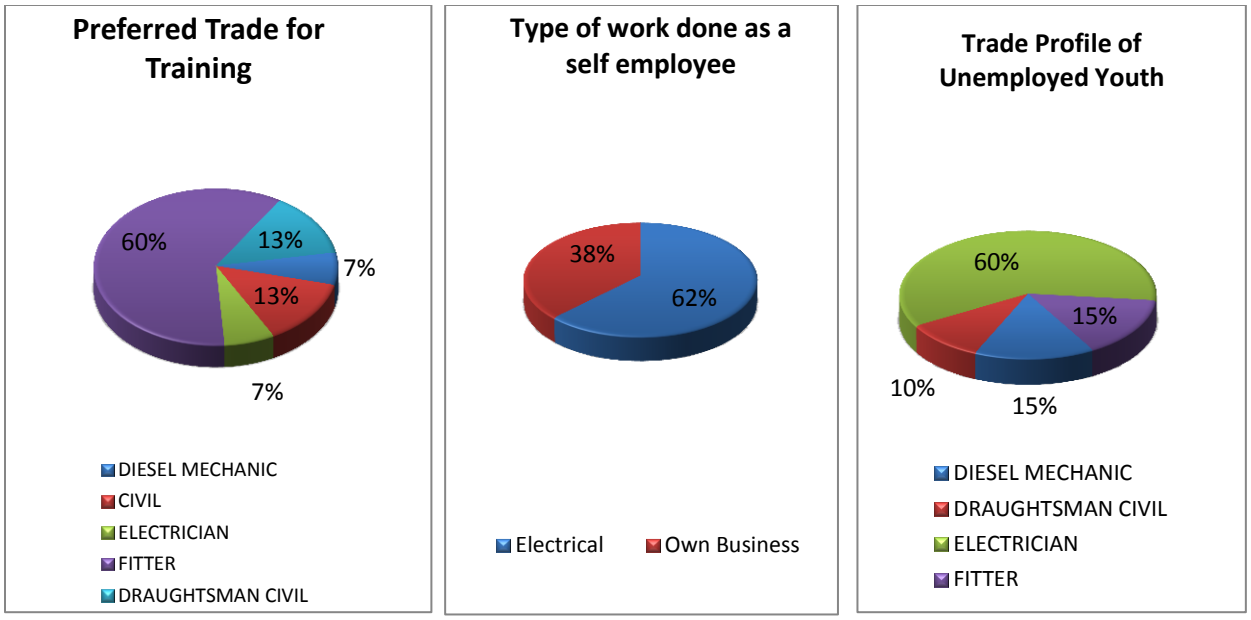


Figure 254 Profile of respondent s (Trainee, self employed and unemployed youth) by trade in sample of Nalgonda

Nalgonda's youth appear to choose courses at VTIs based on perceived demand. The fitter trade accounted for 60 percent of those surveyed, while the draughtsman civil trade took in another 13 percent. The supply of electricians in the market is much higher than demand; they account for 60 percent of the unemployed respondents.

Parameters considered by District's youth while opting for vocational training

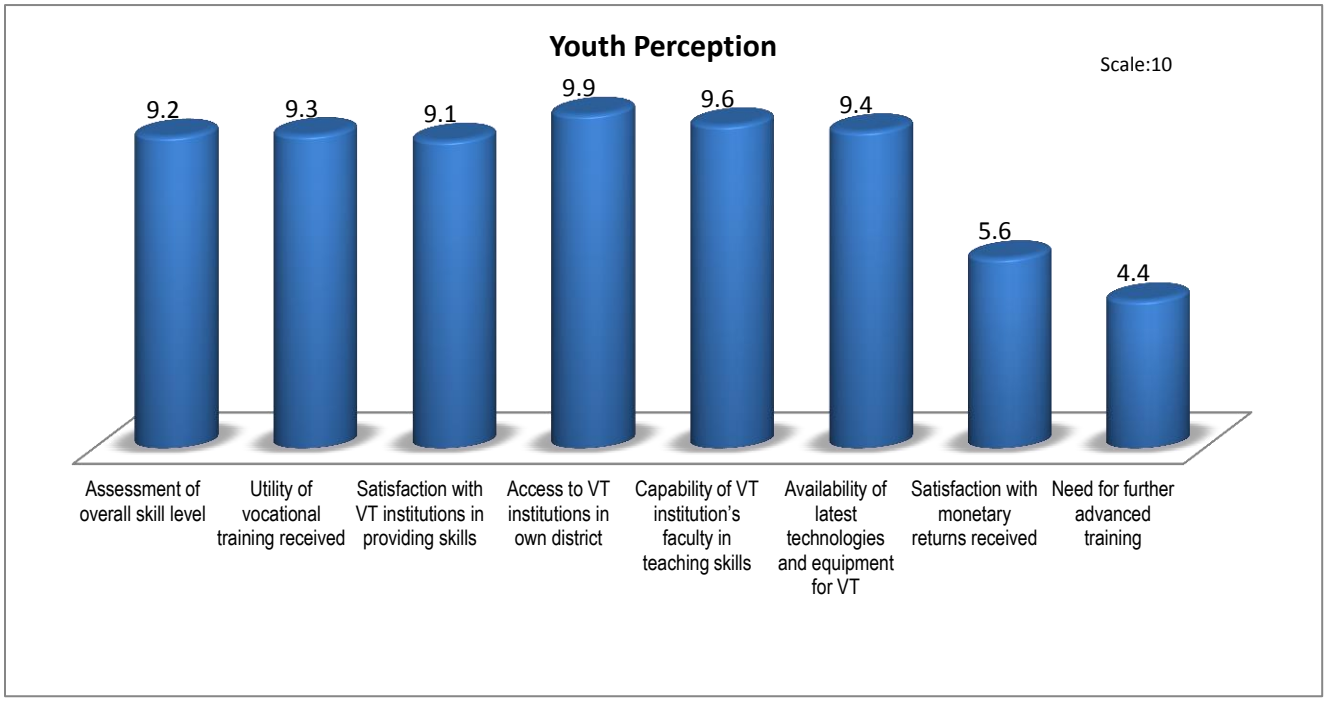


Figure 255 Youth perception graph

Access to vocational training institutes emerged as the most important factor for the youth in Nalgonda, with a rating of 9.9 on a scale of 10. The youth also seems unsatisfied with the salaries they get after completing their courses, and are not motivated to take up further courses to upgrade their skills.

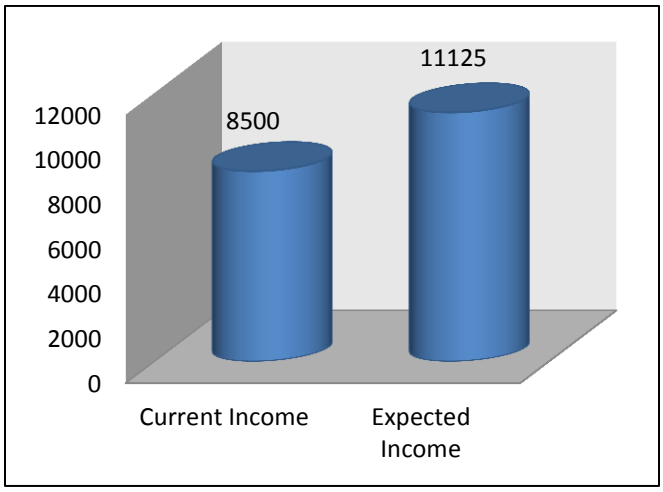


Figure 256 Salary wise expectations of the youth

On average, the youth expected a marginal hike of INR 2,625 from their current salary levels. Out of those surveyed, 66.7 percent did not receive increments in the current year.

4.14.10 Recommendations: Skill Development Eco System

Training institutions and the basic infrastructure for skilling suggests the need for more institutes (from various training capabilities) at Nalgonda, which would in turn determine the linkages with the industries and institutions from various sectors such as manufacturing, construction, hospitality etc. Following are the key demand

Sectors	Growth Opportunities
Agriculture & allied activities	• Agriculture & allied industries sector contributed highest (95 percent) to the primary sector DDP in the 2009-10. • In terms of anticipated employment, the sector will remain the largest employer of workforce in the district till 2021-22.
Trade, tourism and hospitality	• Trade, hotels and restaurants contributed highest (31 percent) to the tertiary sector DDP in 2009-10. • The sector is expected to witness incremental manpower requirement of approx. 2.2 lakh people by 2021-22.The current training capacity in this sector needs to be increased in order to meet the incremental workforce demand in future.
Manufacturing sector such as metals & nonmetallic products, chemicals, food processing etc.	• Manufacturing sector contributed highest (61 percent) to the secondary sector DDP in 2009-10. • Registered manufacturing units witnessed a high growth rate of 23 percent during 2004-05 till 2009-10. • The district has several industries in manufacturing of metals, food processing, chemicals & pharma and auto components. • Currently, the district lacks in the required training facilities in these sectors.

Table 146 Key demand sectors in the district

The key stakeholders' contribution in helping to achieve the targets shown in the figure above would be as follows:

State: Nalgonda does possess a well-established infrastructure for engineering colleges but again not many polytechnic colleges are present in the district.

Action Plan:

1.1 Build strong educational and vocational infrastructure through PPP models.

1.2 Focus on increasing efficiency of employment exchanges. This can be done by building a data base of industry requriments and match them with current skill sets of workers.

1.3 Based on the same, skilling programmes can be desgined to bridge the skill gaps.

Training Partners:

Action Plan:

1.4 Training partners should focus more on 'mobile classrooms' for training in manufacturing and construction sectors. This will help them engage large set of workers.

1.5 Short term module based courses also need to be introduced in the district.

1.6 Focus on identification of upcoming Industries and build customized courses as per their requirements.

Industries:

Action Plan:

1.7 Since, a large workforce migration will be observed from informal to formal sector, industry should engage in programs to induct workers to formal work environments. This can be carried out with the help of local training partners through short term bridge courses.

1.8 Industry should pay placement fees to the training partner, in order to share the training costs.

1.9 Reward skilled labor with higher wages, first month salary should be able to cover maximum training cost involved.

NSDC:

Action Plan:

1.10 Encourage short training modules customized to suit the employment opportunities available.

1.11 Encourage special courses for women, facilitation of creating accommodation facilities, special learning centre etc.

1.12 Encourage private training providers by providing standardized curriculum, accreditation based on adherence to infrastructure norms, etc. through the help of SSC.

4.15 SPS Nellore

This chapter highlights the economic base and occupational structure of the district. It identifies the high-impact industries and skills needed to match the expected growth.

The latter part of the chapter provides the projected workforce demand and supply in the coming years and the optimization plan for Nellore.

4.15 SPS Nellore

4.15.1 Nellore District Demographic Profile

Nellore is the capital city of Sri Potti Sriramulu Nellore district. The district lies between Chennai and Vijaywada in a zone that can be called sub-agro, with an average rainfall of 700-1000mm. However, it is endowed with rich soil suitable for agriculture. About 23 percent of this is black soil, another 43 percent is red soil and the remaining 34 percent in clay loamy. There are no perennial rivers in the district. The important rivers are Pennar, Kandaleru, and Swarnamukhi. Nellore district is performing better than many others with a human development index of 0.565, which gives it the eighth rank in the state. Urbanization is also intensifying. The percentage of urban population to the total population in the district was 29.07 percent in 2011 compared to 22.45 in 2001. Nellore's per capita income of INR 36,470 falls just behind the state average of INR 37,061 at constant prices 2004-05.

Nellore District at a Glance				
Population	**Nellore District**		**Andhra Pradesh**	**Remarks**
	Provisional Census 2011	**Census 2001**	**Provisional Census 2011**	
Total Population	2966082	2668564	84665533	
Total Population - Male	1493254	1344935	42509881	
Total Population - Female	1472828	1323629	42155652	
Population Growth	11.15%	11.55%	11.10	
Area Sq. Km	13076		275100	
Density of Population (Density/Area sq.Km)	204	227	308	
Proportion of Andhra Pradesh population	3.50%	3.50%		
Decadal growth of population (2001 - 2011)	11.15%	11.55%	11.10%	
Literacy rate	69.15	65.08	67.66	
Male Literacy	75.93	73.67	75.56	
Female Literacy	62.30	56.38	59.74	
Sex ratio (per 1000)	986	984	992	
Worker population participation rate		45.4	45.7	Census 2001
Cultivators to total workers		17.61	22.52	Census 2001
Agriculture laborer in workforce		44.72	39.64	Census 2001
Household workers		4.00	4.71	Census 2001
Other industry and services		33.7	33.13	Census 2001

Nellore is heavily populated and most of its people are engaged in agriculture. There are 46 mandals and three revenue divisions in the district: Kavali, Gudur and Nellore.

As per provisional Census 2011 data, Nellore has a population of 2.966 million. Its sex ratio in 2011 was 986 females per 1000 males compared to 984 females in 2001. Nellore accounts for 3.50 percent of Andhra Pradesh's population. The literacy rate of Nellore in 2011 was 69.15 percent compared to 65.08 percent in 2011. The state average in 2011 was 67.66 percent. According to provisional Census 2011 data, male literacy was 75.93 percent, while female literacy was 62.30 percent. Nellore is the seventh most literate district in the state.

As of 2001, the district's total worker participation rate was 45.4 percent. The total male working population was 58.6 percent and that for females was 32.2 percent. Also, the proportion of the female working population in Nellore is 2.7 percent, which is lower than the state figure. Out of the population of those classified as main workers, 71.82 percent are engaged in agricultural and allied activities according the 2001 figures. Another 18.83 percent work in the service sector followed by other industries like manufacturing, which accounts for 4.07 percent, household industries, with 2.97 percent, construction with 1.91 percent, and mining and quarrying with 0.40 percent. An increasing number of workers are engaged in the in secondary and tertiary sectors. There is also a decline in the proportion of the workforce engaged as cultivators, which stood at 17.61 percent in 2001.

4.15.2 Economic Profile

The district's Gross district domestic product (GDDP) has grown at the growth rate (CAGR) of 7.18 percent from 2004-05 till 2009-10. In 2009-10, tertiary sector contributed approx. 47 percent to the GDDP primarily due to the contribution of trade, hotels and restaurants sector followed by primary sector which contributed approx. 34 percent to the district's GDDP.

The chart below indicates GDDP contribution of primary, secondary and tertiary sector from 2004-2005 till 2009-10.

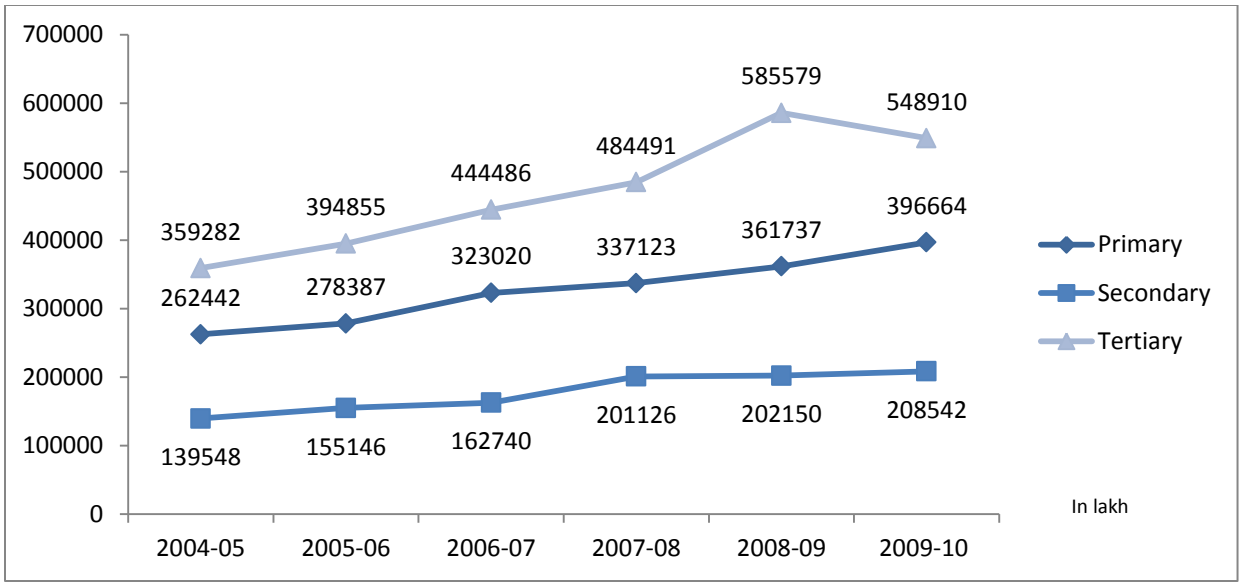


Figure 257 Sector level contribution to the GDDP, Nellore

Primary Sector

The primary sector (agriculture, forestry &logging, livestock, fishing and mining & quarrying) contributed approx. 34 percent to the GDDP in 2009-10. Agriculture sector remained as the highest contributor to the primary sector, contributing 47 percent to the primary sector in 2009-10, followed by fishing (37 percent), livestock (12 percent), mining and quarrying (1 percent) and forestry and logging (3 percent).

The CAGR for primary sector is 7.13 percent from 2004-2005 till 2009-10 with mining and quarrying registering highest growth (CAGR 25. 65 percent) from 2004-05 till 2009-10.

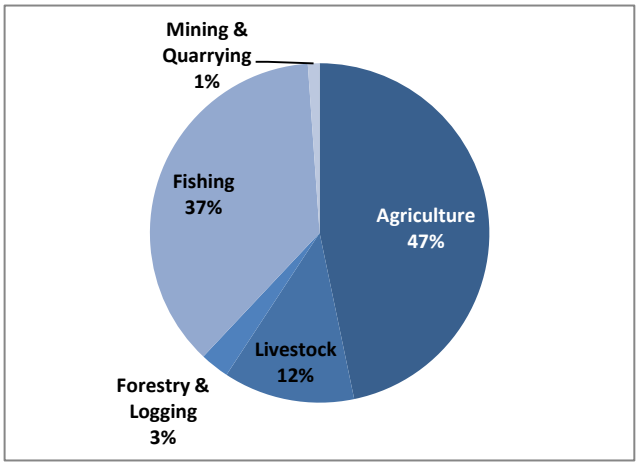


Figure 258 Primary sector contribution to GDDP, 2009-10

Secondary Sector

The contribution of the secondary sector to district GDP in 2009-10 was approximately 18 percent. The sector has shown a CAGR of approx. 7 percent from 2004-05 till 2009-10, primarily due the contribution of construction sector.

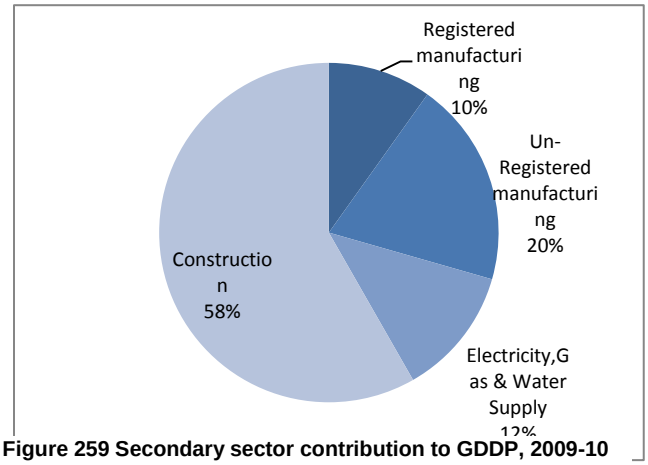


Figure 259 Secondary sector contribution to GDDP, 2009-10

The construction sector has shown an impressive CAGR from 2004-05 till 2009-10. However the growth of manufacturing sector has been negligent with registered manufacturing units growing only by 0.36 percent and unregistered manufacturing units by 4.24 percent from 2004-05 till 2009-10.

Tertiary Sector

The contribution of the tertiary sector has been significant to the district's economy over the years. In the year 2009-10, the contribution of the tertiary sector was approx. 47.56 percent to the district's GDDP. The sector has shown the highest CAGR among the three sectors of 7.32 percent from 2004-05 till 2009-10, primarily due the trade, hotels and restaurants sector.

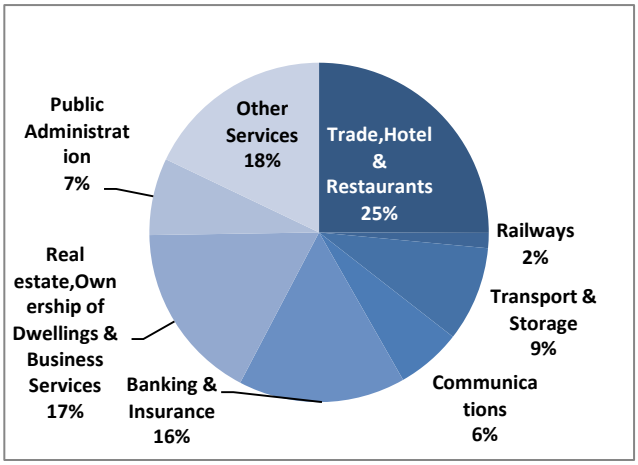


Figure 260 Tertairy Sector contribution to GDDP, 2009-10

Three sectors which have shown a high CAGR from 2004-05 till 2009-10 are transport by other means & storage (9.27 percent), communications (12.64 percent) and BFSI (14.29 percent). Trade hotels and restaurants have contributed highest to the growth of the sector; it has shown a CAGR of approx. 6.45 percent from 2004-05 till 2009-10. Real estate and other services grew by 5.54 percent from 2005-05 till 2009-10.

Industry Mapping

Nellore is on the path to rapid industrialization with an upcoming megaport at Krishnapatnam and is fast developing into a hub for shipping and railroad connections. Nellore's proximity to Chennai, Tamil Nadu's capital, has drawn many entrepreneurs to the district. Nellore has been an exporter of rice, sugarcane, sugarcane-based products, prawn, shrimp, and a variety of crops. Nellore has expanded enormously over the years, with newer flyovers, roads, and highways. The district has 20 industrial areas, one of the highest in the state.

Large & Medium Industries

Nellore district has 52 large and medium industries in prominent sectors like sugarcane crushing, prawn processing, shrimp feed, pharmaceuticals, dry batteries, carbon electrodes, beverages, textiles, dairy units, aluminum cans, rubber, mould caps, iron castings etc. with a capital investment of INR 813.87 billion and employing 13,078 people.

Apart, form these, 30 large and medium scale units are under implementation or in initial stages, with an investment of INR 6,522.8 million and generating employment for 3,505people.

Small Scale Industries

There are 30,869 small-scale industries in the district with a capital investment of INR43.451 billion and provided employment to 128,429 people in 2010. Small scale industries have contributed to the state GDP by generating employment opportunities.

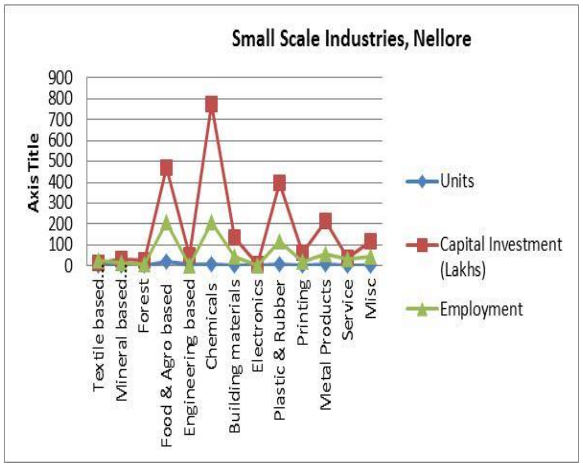


Figure 261 Small scale Industries, Source: District Industries Centre

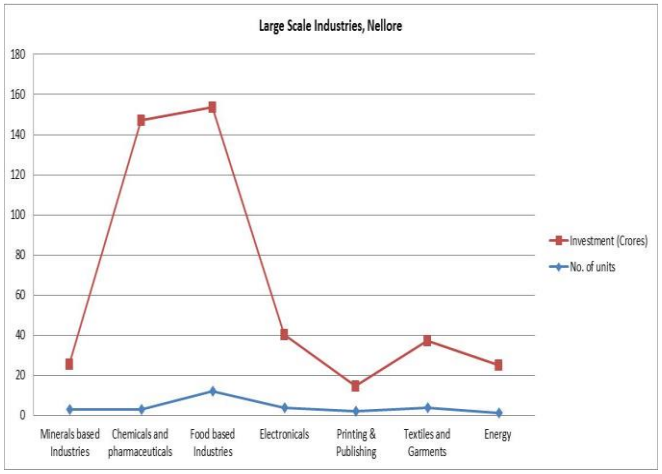


Figure 262 Large Scale & Medium scale Industries, Source: District Industries Centre

Since the economy is predominantly agricultural, industrial development in the initial stages was mainly agro-based. But in recent times, sectors like chemicals, building materials, and engineering are developing impressively.

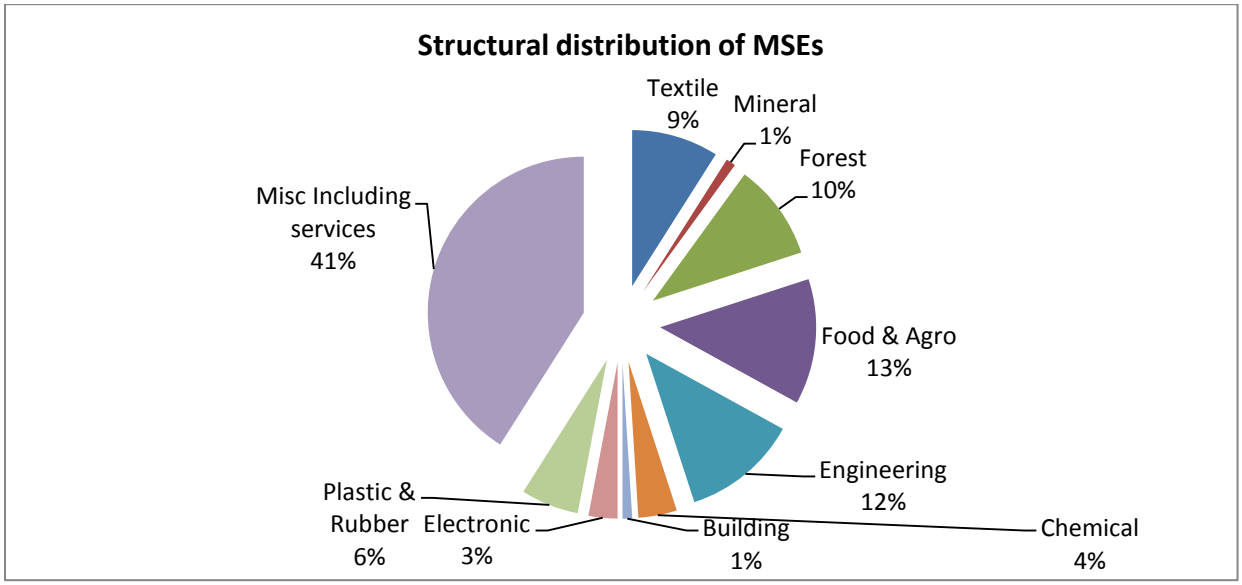


Figure 263 Structural distribution of MSMEs

4.15.3 Education Infrastructure and Utilization

The current education infrastructure appears to be adequate in terms of capacity, but quality needs to be improved in higher education and colleges.

Nellore district has a heritage of being an important educational center right from the time of the formation of Andhra Pradesh. Its literacy rate in 2011 was 69.15 percent compared to 65.08 percent in 2001. The 2011 figure is also higher than the state figure of 67.66 percent.

Schools	Total Number	No. of Enrollments
Primary Schools	3009	157334
Upper Primary Schools	652	74118
Secondary Schools	560	153202
Higher Secondary Schools	10	6323

Table 147 Schools with enrolment details Source: Statistical Abstract, Andhra Pradesh - 2011

According to provisional Census 2011 data, the male literacy figure stand at 75.93 percent, while female literacy was at 62.30 percent.

As per Census 2001, the total number of graduates and above in Nellore district was 93,056. Out of this population, 65 percent were male and 28 percent were female. Also, Nellore accounts for 3.29 percent of all of Andhra Pradesh's graduates. The gross enrolment ratio is at 88.40 percent for classes I-V, followed by 78.29 percent for classes VI–VIII and 37.85 percent for classes VIII–X. In comparison, the state's ratios are 100.46 percent, 84.76 percent and 69.51 percent, respectively.

Educational Institutions	Total Number
ITIs	11
Polytechnics	10
Engineering Colleges	26
Medical/nurses Colleges	32
Pharmacy Colleges	9

Table 148 Education Statistics; Source: Statistical Abstract, Andhra Pradesh – 2011

Dropout rates increase with higher classes. For classes I-X, the dropout rate is 43.75 percent. In contrast, the average dropout rate for the state is 46.21 percent. The district also has several options higher education. Apart from various B. Ed and MBA colleges, there are many colleges for technical education offering courses in specialized fields.

4.15.4 VTI's demand across various trades in Nellore district

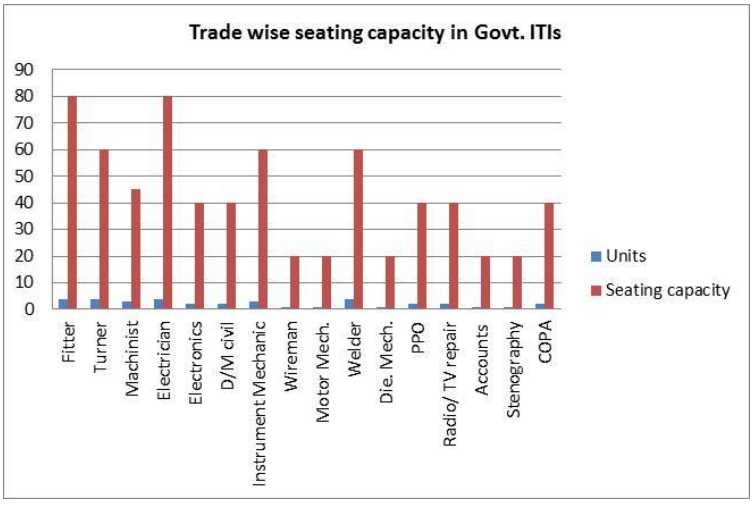


Figure 264 Trade wise seating capacity in ITIs

Government ITIs in Nellore offer training in a wide range of technical courses. The total intake of all ITIs and ITCs is around 946 students per annum. Trades in which training is given include those for fitters, welders , dressmakers, electronics repair, stenography, computer operator and programming assistant (COPA), radio and television repair,

Draftsman -Mechanical, electrician, instrument mechanics, refrigeration and air conditioning, book binding and desk top publishing.

Interestingly, it may be noted that the intake of trainees in the electronics and fitter trades are equal. New trades are introduced in the ITIs based on demand from industry. All the trades and units are permanently affiliated to National Council of Vocational Training of Director General of Employment and Training.

A survey was conducted in the district to better understand the vocational training scenario. Six government and six private VTIs were part of the survey. The courses were predominantly engineering-based to cater the local market needs and address self-employment. There is just one female oriented course offered i.e. dress making, and is only available in government VTIs. Government VTIs also offer more courses than the private VTIs and have a greater intake. The details of the courses offered in Nellore's VTIs are represented in the table.

Government VTI Trades		Private VTI Trades
COE	Mechanic Diesel	Draughtmen Civil
Dress Making	Motor Mechanic	Electronic
Electrician	COPA	Fitter
Electronics	Fitter	Mechanic Diesel
Instrument Mechanic	Turner Machinist	Electrician

Table 149 Courses offered in government and private VTIs (sample), Nellore

The government VTIs sampled for the study offer 10 different trades for training while the private VTIs offer five. The courses for electricians and fitters appear to be the most popular in both government and private VTIs. Government VTIs appear to have more vacant seats than private ones. But in three trades: those for dressmaking, COE and motor mechanic, most or all seats are filled. On the other hand, the mechanic-diesel course sees vacancies in both private and government VTIs.

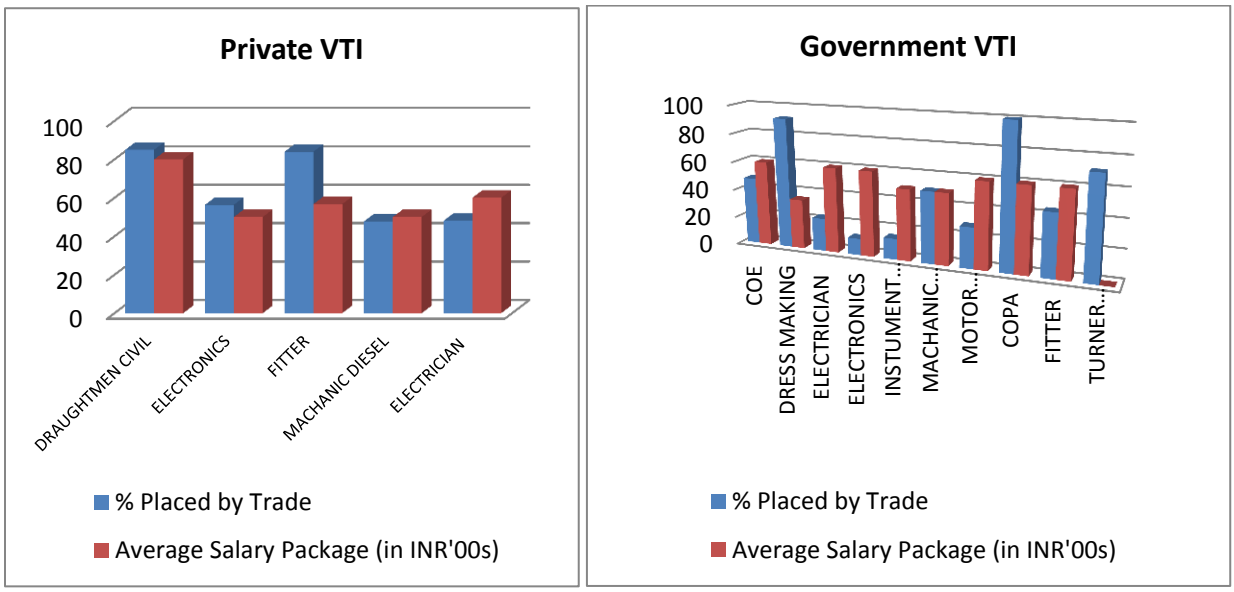


Figure 265 VTIs with placement percentage and average salary across trades

An overview of records in government VTIs indicates placement rate at private VTIs is much higher than at government VTIs. Still, stronger prospects in the COPA trade means it records a 100 percent placement rate at government VTIs followed by the dressmaking and the turner trades. While the fitter trade is popular, its placement rate is only 44 percent. In private VTIs, students from the draughtsman trade got the highest placement through both college recruitment and proactively approaching industry. This was followed by the fitter trade in which most placements happen when students take the initiative to reach out to employers. Average salaries indicate reasonable prospects across most trades except for those in the dressmaking course in government VTIs. Trainees from most trades except dressmaking got salaries of about INR 6,000 per month. It is interesting to note that the salary level of government VTIs is at par with private VTIs. But the draughtsman trade at private VTIs has the highest average salary for trainees at INR 8,000 per month.

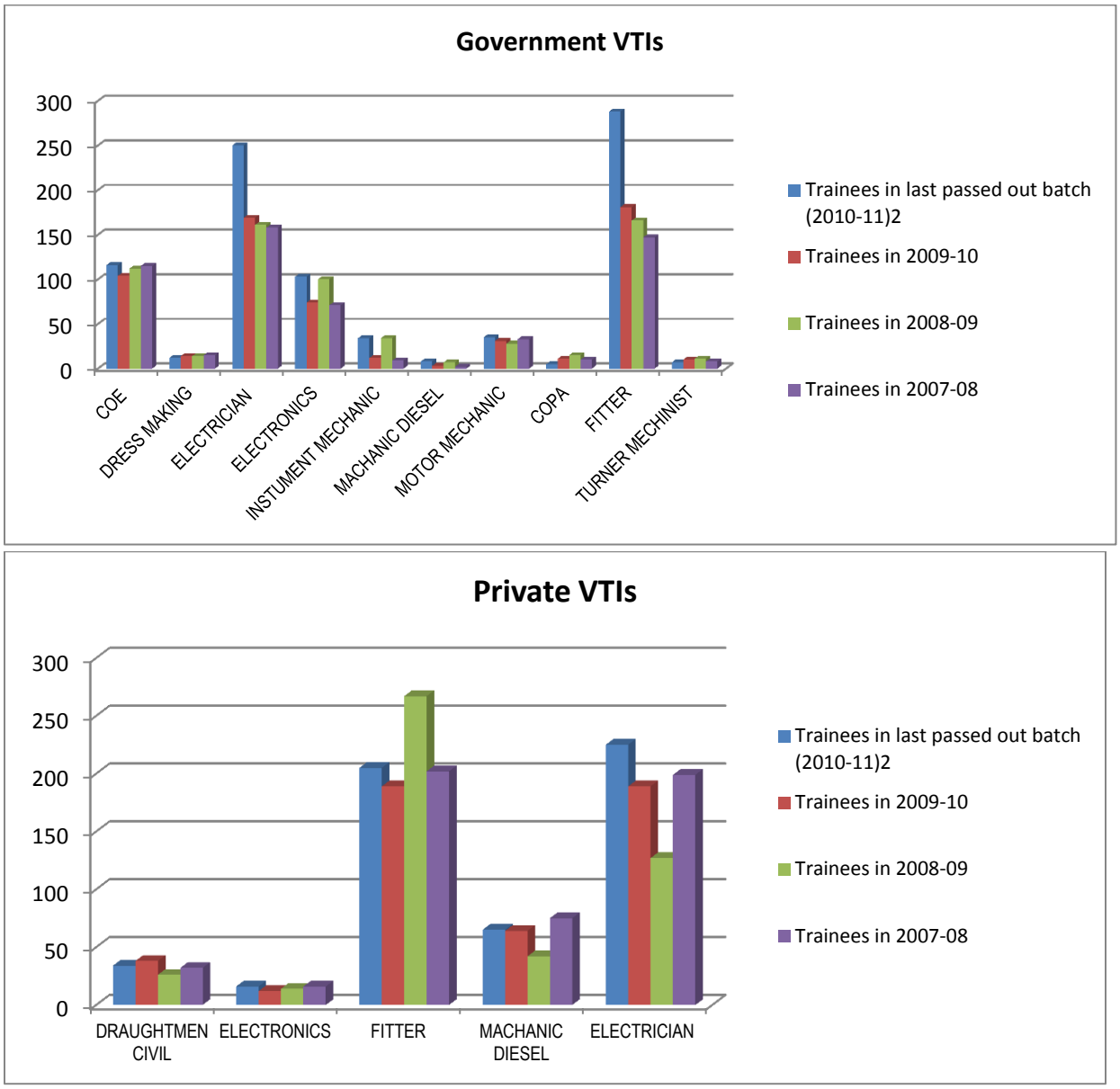


Figure 266 Trends of trained youths across trades over years

The trends above show that there has been an overall increment in the total demand for vocational courses. The trends across most of the trades except COPA show an increase in demand from the data in the number of trainees by trade over time in Government VTIs over the years.

A quick review of manpower in both government and private VTIs tells us that both suffer from shortage of academic staff. Government VTIs are much more understaffed than the private VTIs in all three categories: managerial, academics, and support staff, which can hamper their smooth functioning.

	Govt VTI	
	Approved	**Actual**
Managerial	42	36
Academics	78	62
Support Staff	24	9
	Private VTI	
	Approved	**Actual**
Managerial	27	26
Academics	45	36
Support Staff	8	5

Table 150 Approved & Actual staff in VTIs

4.15.5 Placement & Absorption Trend

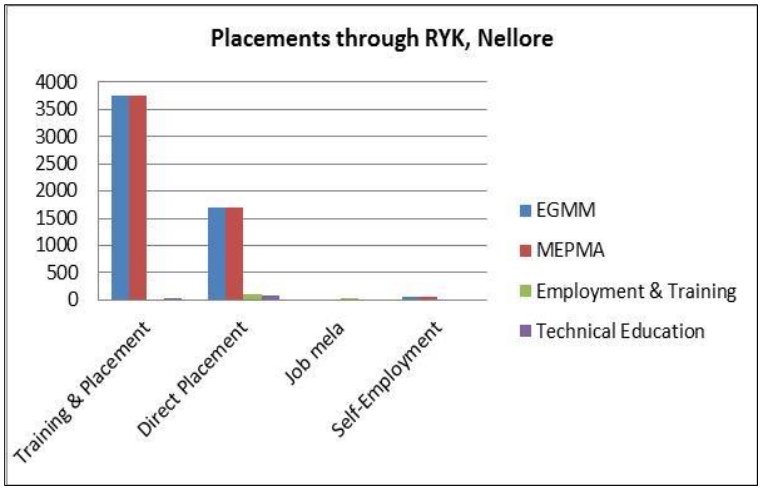


Figure 267 Placements through RYK; Source: RYK state level placements monitoring report, June 2012

The placement of the candidates seeking job opportunities is done by registering with the employment exchange, through the VTIs themselves offering placements through direct industry linkages, or through the Job Mela organized as a part of the ongoing Rajiv Yuva Kiranalu. The Rajiv Yuva Kiranalu conceived by the Government of Andhra Pradesh aims at building job specific skills among the unemployed and placing them in appropriate private jobs. It also seeks to help bring a large number of non-literate, school dropout, and minimally skilled youth into the productive workforce. As depicted in the diagram, 67 percent of placements are done of through training offered by the skill development centers in polytechnics, followed by 32 percent through direct placements.
There is one employment exchange in Nellore. The number of candidates in the live register during 2009-10 was 47,913. However, only some 19 candidates got jobs through the exchange.

4.15.6 Sector wise mapping of industries in Nellore

Nellore is one of the most industrialized districts in the state and is becoming a hub for port based and export oriented industries. There has also been a substantial increase in workforce requirement in the agro-food, chemicals, pharmaceuticals, and ship building industries.

ustry wise Sector Mapping					
NSDC (High growth sectors)	**Units**	**Employment**	**High**	**Medium**	**Low**
Automobile and Auto components	19	297			
Food Processing (Food beverages and Tobacco products)	530	9764			
Electronics Hardware	25	1057			
Textiles and Garments	7	8618			
Engineering based industries					
Chemicals and Pharmaceuticals	18	529			
Building and Construction	7	13360			
Transportation/logistics/warehousing and packaging	1	15			
Healthcare	65	297			
Education/ Skill Development	20	200			
Banking/ Insurance and Finance	269	674			
Manufacture of Wooden furniture	109	670			
Paper and Publication	17	1014			
Rubber and Plastics					
Petroleum	4	133			
Mining & Quarrying	1	6			
Minerals based industries	56	2790			
Service based industries (Repairs & maintenance: R&D)	35	1559			

High	Units>200, emp>1000 - all applicable
Medium	Units>100, emp>500 - all applicable
Low	Units>10,emp>30 - all applicable

Table 151 Sector wise mapping of Industries; Source: DIC

SECTORS	No. of Industries Sampled
Agriculture & Allied	1
Auto & Auto Components	1
Auto & Auto Components & Services	1
Chemical & chemical products	4
Food Processing & Products	5
Leather & leather goods	1
Machinery, Electricals & Manufacturing	5
Mines, Metals & Minerals	4
Paper Based	1
Textile & Handloom	1
Transportation, Logistics, ware housing & packaging	1
Unorganized Sector	1
Total	**26**

Table 152 Sectors covered with number of industries surveyed in the industry

To map the state of industry in Nellore, a stratified sample of 26 industries was selected. The sample of employers consisted of functionaries from diverse industries located in the district.

Employers were asked to rate their expectation from their workers on a scale of five.

Employers in all sectors reflected a relatively moderate desire for worker characteristics across all the traits offered for ranking. Ratings were usually between 1.8 and 4.4. Interestingly, employers rated the aspiration-career growth category the highest, with an average rating of 4.2.

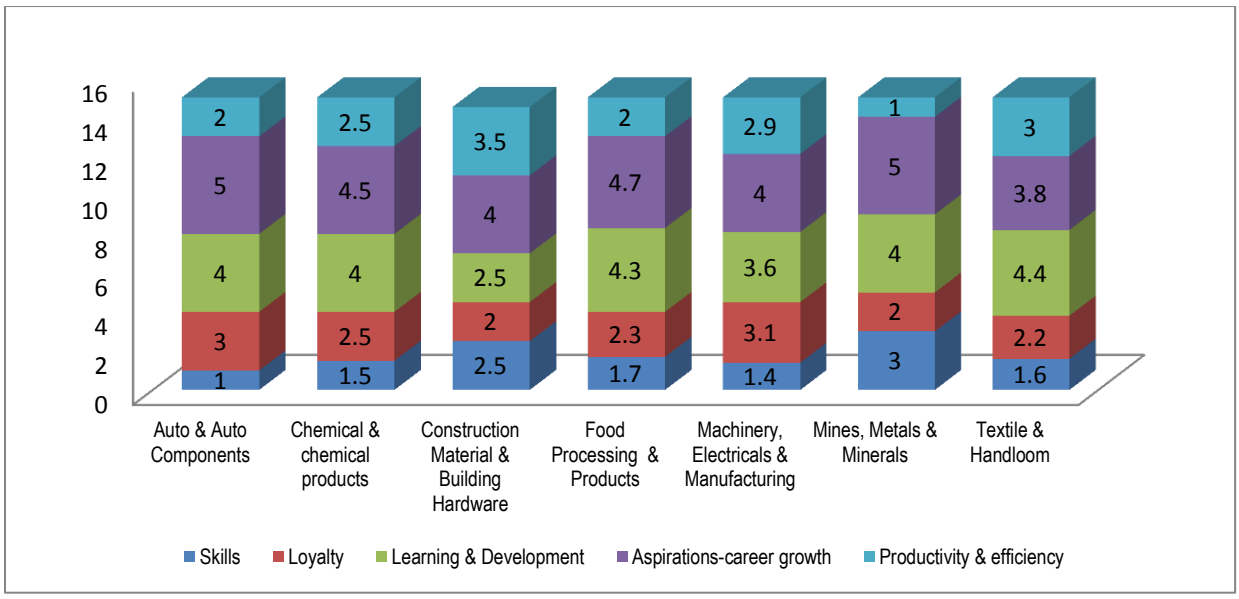


Figure 268 Expectation of employers as per sample survey

4.15.6 Composition of workforce

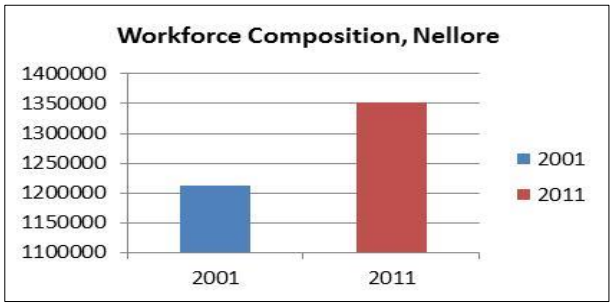


Figure 269 Projected Workforce; Source: Deputy Commissioner of Labour, 2012

According to Census 2011 data, the total workforce in Nellore is expected to rise by 11.5 percent against the 2001 data. Workforce participation observed in Nellore district over a period of two decades has shown that agricultural labor and the other industries and services category dominate. Many of the district's workers are still employed in agriculture. Looking at the present resources and skill set of the workforce, agro based industries should play a key role in future. Despite this, there is also a rise in workers in the secondary and tertiary sectors.

A significant 54.6 percent of the workforce in Nellore comes from the non-workers category. Main workers make up 36.9 percent and marginal workers, 8.5 percent. The workforce classification shows that agriculture employs a large number of marginal workers. More and more workers are now in the service sector followed by workers in the secondary sector. The workforce participation rate varies according to the stages of economic development across size, age and sex.

In Nellore district, it has been estimated that the largest portion of workers aged 15-59 years, fall in to the main workers category.

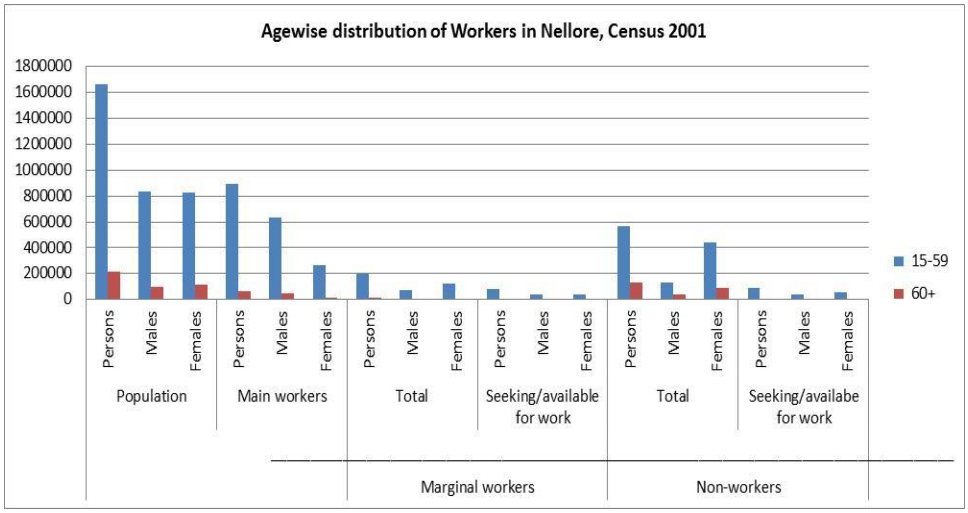


Figure 270 Age wise distribution of workers

4.15.7 Projected Workforce Demand

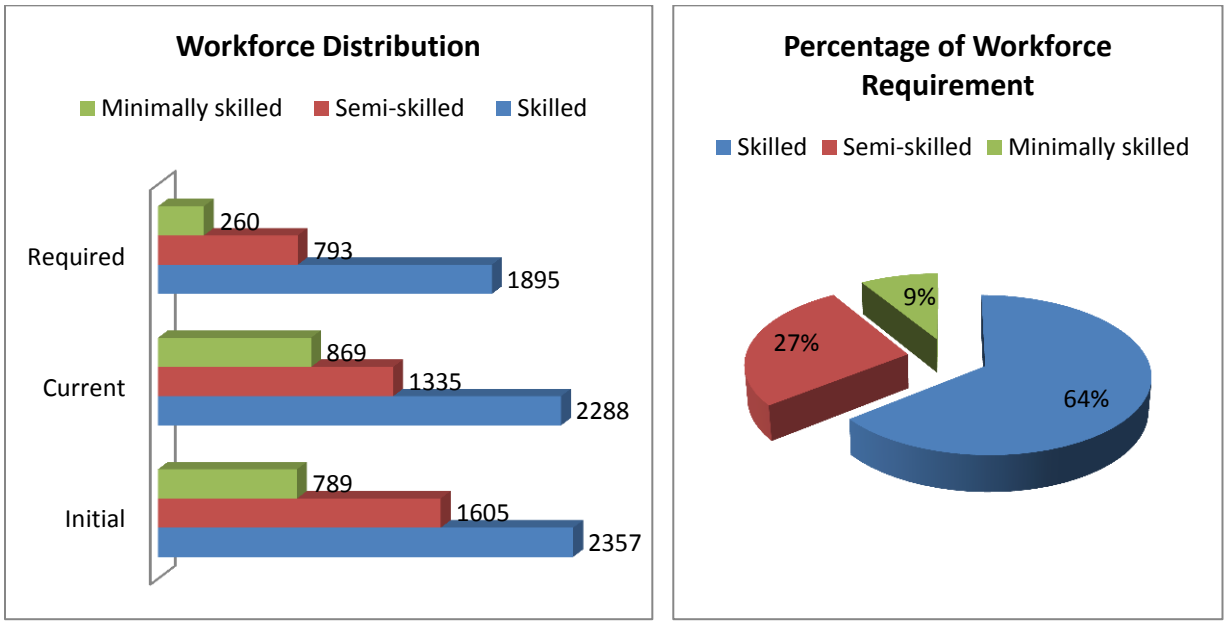


Figure 271 Workforce distribution in sampled industries in terms of skilling as per primary survey

A total of 26 industries were sampled for the survey to represent 12 major sectors in the district. The above table shows the availability of skilled, semi-skilled and minimally skilled workers at the time of the establishment of their respective industry, along with their present and required had strength Sampled industries showed more potential to absorb more skilled workforce across three sectors named Leather & leather goods, metals & minerals and unorganized sector. Ten of the sampled industries have maintained more or less same number of skilled, Semiskilled and minimally skilled workers' strength at the time of industry establishment to current date.

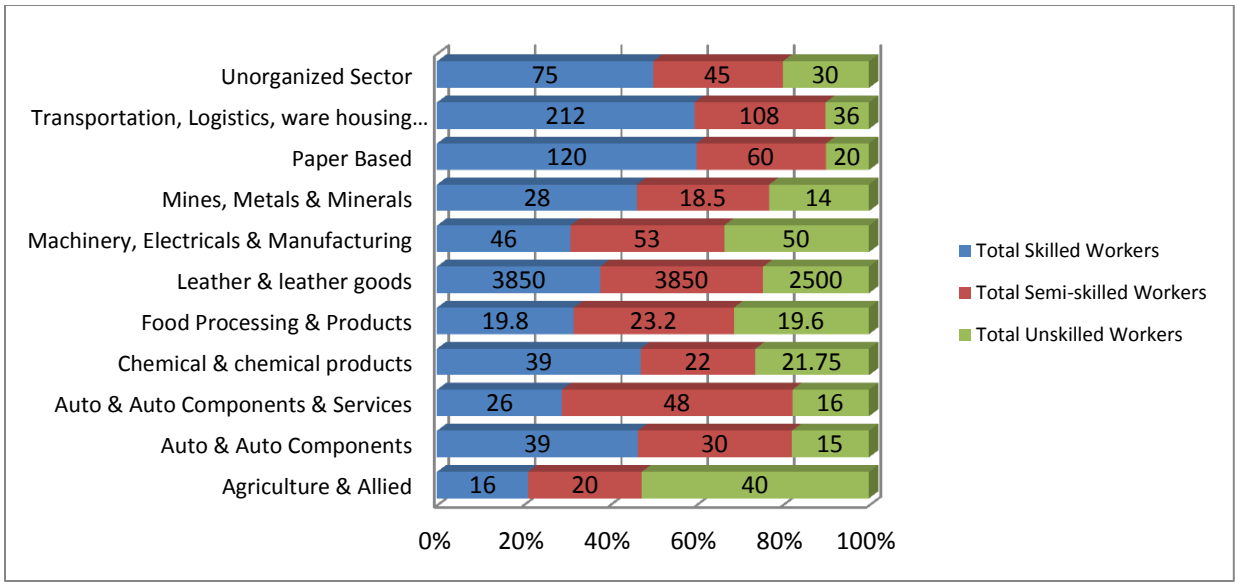


Figure 272 Sector wise current workforce distribution pattern across industries

Across the twelve sectors represented in the sample, the proportion of skilled workers is the highest, followed by the semi-skilled and minimally skilled workers. Across all twelve sectors represented in the sample, large worker strengths were observed in the leather and leather goods industry, transportation, logistics, warehousing and packaging and food processing products sector. On the other hand, agriculture reflects low workers strength.
The industries sample in the survey showed a high demand for skilled and semi-skilled workers. This also explains the increase in demand for vocational courses. Demand for minimally skilled labor is less than half of that of skilled. Overall, industry is positive about absorbing skilled labor and rewarding them with better pay. They also want their manpower to be highly motivated and display interest towards more learning and up-skilling.

Hiring through the contacts of existing workers appears to be the most reliable method of recruitment across all industries. Other recruitment methods like campus interviews, approaching contractors and the employment exchange were also reported.

Incremental manpower demand over the years till 2021-22

As indicated in the table below, the district will witness high incremental workforce demand in textiles, construction, banking and the insurance and IT/ITES sectors. The incremental manpower demand in auto and chemical manufacturing sector is expected to be negative due to slow growth trends in these sectors.

	2012-2017			2017-2022		
Industry	**Skilled**	**Semi-Skilled**	**Minimally Skilled**	**Skilled**	**Semi-Skilled**	**Minimally Skilled**
Agriculture & Allied Activities	6382	31912	121265	3983	19913	75668
Mining & Quarrying	747	396	768	740	581	792

industry establishment to current date. Construction	34541	42205	29661	34597	37068	55355
Tourism, Travel & Hospitality	38633	-10174	-11252	5213	2346	1564
Transportation, Logistics, Warehousing & Packaging	-124	-63	-21	-283	-144	-48
IT & ITES Sector	4254	2167	722	3918	1996	665
Banking & Financial Services Insurance	27758	2906	530	30048	3146	573
Real estate	17648	1937	318	13297	5983	3989
Other Services	1383	2226	-1458	-80	-86	-128
Electricity, gas & water supply	1074	-1976	-1716	-2176	-979	-653
Food processing	6901	-5101	-4731	-3413	-1536	-1024
Chemicals & Pharmaceuticals*	7850	-7140	-6469	-5872	-2659	-1725
Coke, refined petroleum and nuclear fuel*	244	125	119	244	146	98
Rubber and plastic products*	-83	-193	110	-83	-50	-33
Auto & Auto components*	-876	-536	-340	-876	-526	-351
Metals & non metallic products*	-30	-17	-13	-30	-18	-12
Textile & leather	48	24	23	48	29	19
Wood & Paper products	174	109	64	0	0	0
Total	2479	1381	1098	2479	1487	992

Table 153 Projection of incremental manpower requirements till 2022 across various Sectors

4.15.8 Skill Gap Analysis

The skill gap analysis was performed by undertaking a survey. A structured questionnaire was designed to map the current and the future skill requirements of the industries identified in Nellore district. The analysis factored in industry linkages with vocational training institutes, employment exchange and other sources for workforce absorption. It shows a significant mismatch between industry skill requirements and the skill pool emerging.

Incremental Workforce Demand & Supply Gap						
	2012-2017			2017-2022		
Sectors	**Skilled**	**Semi-Skilled**	**Unskilled**	**Skilled**	**Semi-Skilled**	**Unskilled**
Demand	165640	81264	145702	112114	84051	147264
Supply	9230	6610	94552	3563	11390	84721
Gap	156410	74653	51151	108551	72661	62543

Table 154 Incremental skill gap across workforce skilled, semi-skilled and minimally skilled

In-depth interviews conducted with senior functionaries indicate the need to enhance the current vocational capacity in the district. Some of the important findings were as follows:-

1. Currently, there is a mismatch between industry requirements and the sectors in which the trainings are being provided. More training need to be focused on BFSI, construction, hospitality and services sector.
2. Demand for skilled manpower in small and medium industries is high and expected to grow. Authorities will also need to promote self-employment and entrepreneurship through schemes and new training courses.
3. Elsewhere too, the demand for a skilled workforce would be increasing over next three to five years keeping in mind the increasing investment pattern of the state. Major employment would be perceived in automobile, mechanical engineering and electrical hardware sector.
4. Trades such as electrician, fitter, plumber, mechanics are in demand. More attention needs to be paid to practical training.

4.15.9 Youth Aspirations

The youth survey study was primarily undertaken through a survey that sought to understand the perceptions and aspirations of the young workforce. Interviews were conducted with 60 students along with focus group discussions to draw inferences about their hopes and concerns.

The in-depth interactions were held with youth representing all categories, whether employed, self-employed, unemployed or trainees (as shown in the table above). Out of the youth covered, 95 percent were college educated and the remaining 5 percent had completed high school education. All the respondents were from registered VTIs with 60 percent of them coming from government VTIs and the remaining 40 percent from private ones.

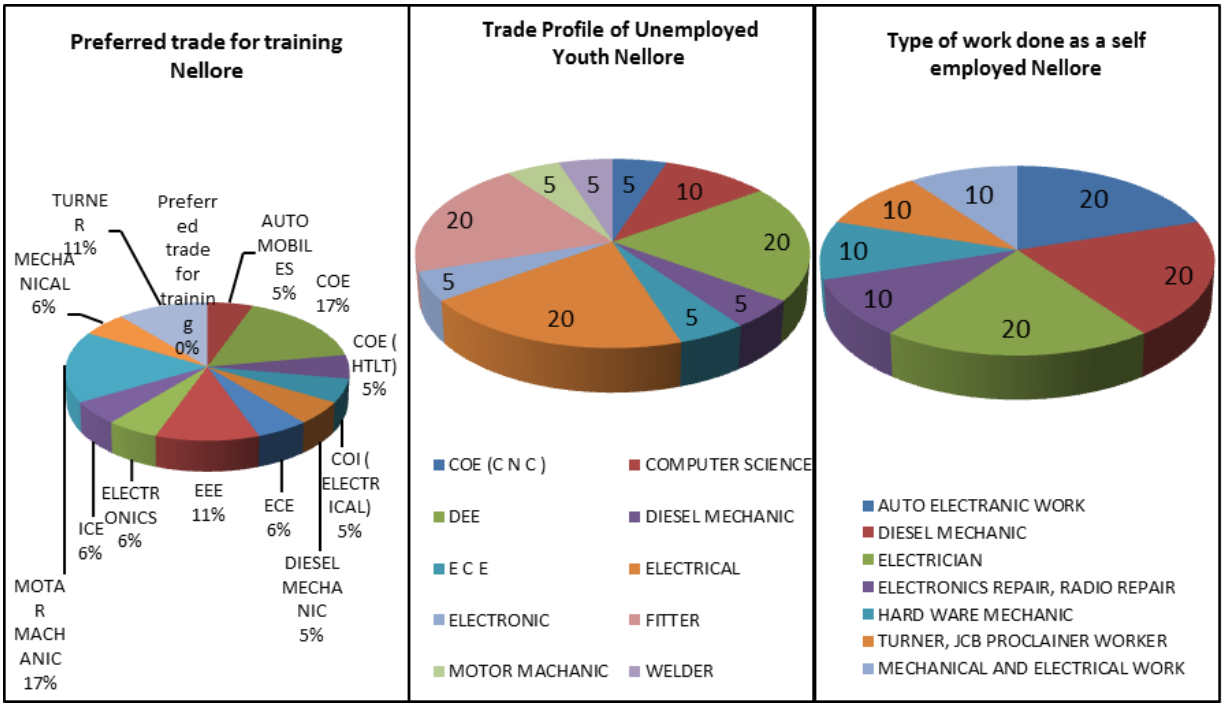


Figure 273 Profile of respondents (trainee, self-employed & unemployed youth) by trade in sample of Nellore

The motor mechanic and COE courses (17%) appears to be the most popular trades as per the perceived demand in the market followed by EEE (electrical & electronics engineering) i.e. 11%. Majority of self-employed youth selected Electricals, Auto electronics work & Mechanic diesel job equally (20%) while other type of work sharing equally(10%). Respondents which were currently unemployed reported DEE (diploma in electrical Engineering) as the most preferred trade. Next to that, Fitter and Electrician trades are equally (20%) most popular choice.

Parameters considered by District's youth while opting for vocational training

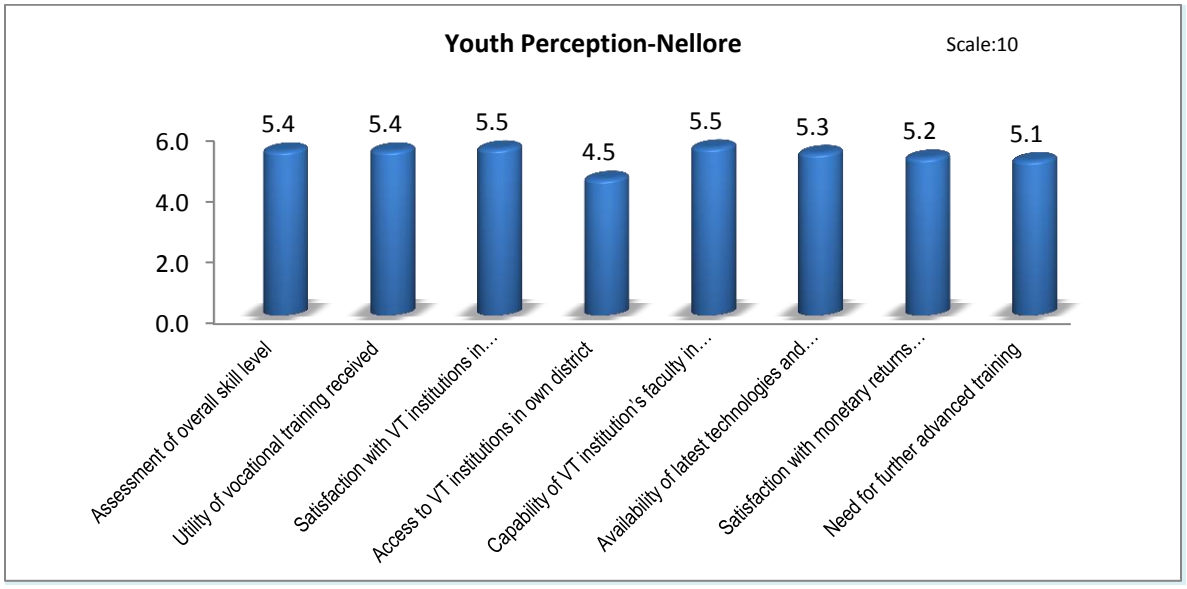


Figure 274 Nellore Youth's perception, need and aspirations –Sample Group

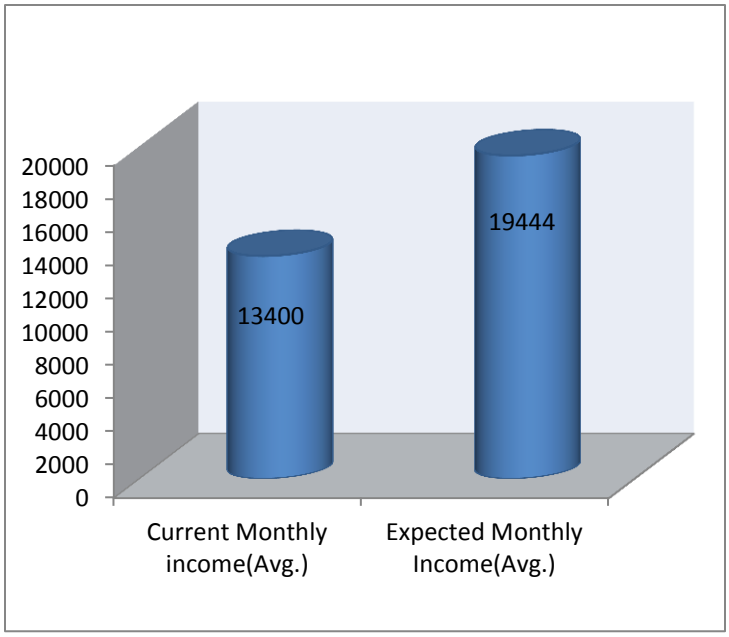


Figure 275 Salary wise expectation of youth

The survey indicates that the youth of Nellore have given roughly average rating to the existing VTIs. The highest marks are reserved for satisfaction and for the capabilities of the faculty. However, access to VT institutions gets the lowest rating of 4.5 on a scale of 10. The respondents felt that facilities need to be improved at the VTIs and that technology needs to be upgraded to meet industry standards. When it came to their jobs, the young appeared to be dissatisfied with their salaries and had expectations of INR 5,000 per month more than their current wages.

4.15.10 Recommendations: Skill Development Eco System

Currently the district lacks quality training institutes. There is much need of entrepreneurship courses in textiles and leather sector. A public sector major port with an investment of INR 80 billion outlay has been announced in the district, which will in turn spur several economic activities in the district. So training partners with construction and infrastructure courses, fitter, plumbers, engineering works should be encouraged keeping in mind the high requirement of skilling the up-coming industrial base.

Sectors	Growth Opportunities
Construction	• The construction sector contributed highest (58 percent) to the secondary sector DDP in 2009-10. • In terms of anticipated employment, the sector will witness second highest requirement of incremental workforce.
Textile & leather	• The district has several clusters of leather and textiles such as Peddacherukuru Embroidery, Atmakur leather, Siddipuram weaving etc. • The sector employs various self-help groups for production. • These clusters require continuous training in marketing and designing skills.
Banking and financial services	• The BFSI sector witnessed highest growth rate of approx. 14.2 percent from 2004-05 till 2009-10.

Table 155 Key demand sectors: Nellore

The key stakeholders' contribution in enabling to achieve this target would be as follows:

State: The district's current education system seems to be adequate but quality needs to be improved in higher education and colleges.

Action Plan:

a) Build strong teacher training institutions, with a greater focus on the improvement of pedagogical methods.
b) Collaborate with the industry for training infrastructure and guest faculties.
c) Focus on building tool rooms and center of excellence.

Training Partners: The district will require large number of skilled manpower in infrastructure sector. Currently, no such training facilities are present in the district to address this demand.

Action Plan:

a. Build curriculum for the new sectors emerging in the district to address the skill gap.
b. Focus on quality, third party assessment and certification of the trained students.
c. Collaborate with the industry to spread awareness about the upcoming employment opportunities, focus on building youth aspirations for the sector.

Industries: Industry will need to work along with training partners to address the manpower skill gap.

Action Plan:

a. Industry needs to reward skilled manpower with higher wages. Promotions norms should be formed based of higher skill levels, encouraging the current semi-skilled and minimally skilled workers to take up-skilled courses.
b. Collaborate with skill development institutes for updating course content & creating linkages for placement.

NSDC: NSDC should enable the training providers to develop customized training modules as per the requirements of the youth and the industry. NSDC should provide required occupational standards to help build curriculum.

4.16 Nizamabad

The subsequent section highlights the economic base of Nizamabad and its occupational structure. It identifies the high impact industries and skills needed to match the expected growth.

The latter section presents the projected workforce demand and supply in the coming years and the optimization plan for the district.

4.16 Nizamabad

4.16.1 Nizamabad District Demographic Profile

Nizamabad at a Glance				
Population	**Nizamabad District**		**Andhra Pradesh**	**Remarks**
	Provisional Census 2011	**Census 2001**	**Provisional Census 2011**	
Total Population	2552073	2345685	84665533	
Total Population - Male	1252191	1162905	42509881	
Total Population - Female	1299882	1182780	42155652	
Population Growth	15.12%	8.80%	11.10%	
Area Sq. Km	7956		275100	
Density of Population (Density/Area sq.Km)	321	295	308	
Proportion of Andhra Pradesh population	3.01%	3.08%		
Decadal growth of population (2001 - 2011)	15.12%	8.80%	11.10%	
Literacy rate	62.25	52.02	67.66	
Male Literacy	72.66	64.91	75.56	
Female Literacy	52.33	39.48	59.74	
Sex ratio (per 1000)	1038	1017	992	
Worker population participation rate	-	49.4	45.7	Census 2001
Cultivators to total workers	-	27.3	22.52	Census 2001
Agriculture laborer in workforce	-	29.7	39.64	Census 2001
Household workers	-	14.30	4.71	Census 2001
Other industry and services	-	28.7	33.13	Census 2001

Nizamabad district is situated in the northern part of Andhra Pradesh and is one of the 10 districts of the Telangana region. The district has well established road and railway link with the capital city Hyderabad. Nizamabad is a border district, adjacent to both Karnataka and Maharashtra. It also borders other districts in Andhra Pradesh like Karimnagar and Adilabad. In most respects Nizamabad is performing poorly. Its human development index (HDI) of 0.504 is lower than the state figure. The ratio of the district's urban population to its total population was just 23.03 percent in 2011, though that was up from 18.11 percent in 2001. Also, Nizamabad's per capita income is INR 30,277 compared to the state average of INR 31,847 Looking at these existing trends, it is clear Nizamabad is mostly rural and less prosperous than many other districts.

Nizamabad is well known for Nizams Sugar Factory. The household industry of Beedi manufacturing is another major activity, especially for women in the district.

As per provisional Census 2011 data, Nizamabad accounts for a population of 2.552 lakhs with sex ratio of 1,038 females per 1,000 male compared to 2001 census figure of 1,017. The total area of the district is 7,956 sq.km and it accounts for 3.01 percent of the total area in Andhra Pradesh. Among the 23 districts in the state, Nizamabad is ranked at the tenth position with high decadal growth rate with 15.12 percent against the state figure of 11 percent.

Nizamabad's literacy rate of 62.25 percent is the fifth lowest in the state. The literacy rate in 2011 is 62.25 compared to 52.02 and has shown some improvement although the literacy rate remained at lowest position as compared to other districts of the state. Sex wise, around 72.66 percent of males and only 52.33 percent of females are literates.

It is pertinent to note that Nizamabad's total workforce participation rate of 49.4 percent is fourth highest in the state. Out of the total working population, the male make up 54.3 percent while females constitute 44.2 percent. Out of the total working population, main workers comprise of 41.4 percent of the total population followed by marginal workers at 8 percent, and non-workers at 50.6 percent. Out of the population of main workers, 31.35 percent are cultivators and another 23.37 percent are agricultural laborers. Household industries account for another 14.57 percent of the workforce and other industries employ 30.71 percent. The workers population in the district indicates that cultivators followed by agricultural laborers dominate the total working population.

4.15.2 Economic Profile

The district's Gross district domestic product (GDDP) has grown at the growth rate (CAGR) of 7.07 percent from 2004-05 till 2009-10. In 2009-10, tertiary sector contributed 51 percent to the GDDP primarily due to the contribution of trade, hotels and restaurants sector followed by primary sector which contributed 29 percent to the district's GDDP.

The chart below shows GDDP of primary, secondary and tertiary sector from 2004-05 till 2009-10.

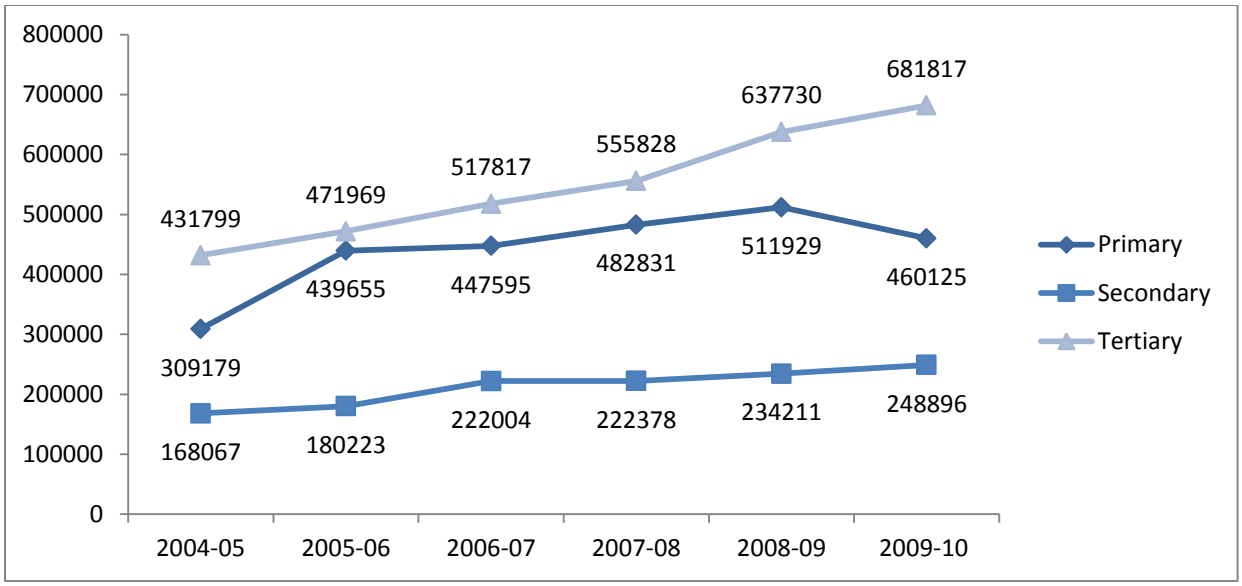


Figure 276 Sector wise GDDP contribution, Nizamabad

Primary Sector

The primary sector (agriculture, forestry &logging, livestock, fishing and mining & quarrying) contributed 33 percent to the GDDP in 2009-10. Mining and quarrying was the highest contributor to the primary sector, contributing approx. 42 percent to the primary sector in 2009-10, followed by agriculture (35 percent), forestry and logging (4 percent), livestock (18 percent) and fishing (1 percent).

The CAGR for primary sector was approx. 6.85 percent from 2004-2005 till 2009-10 with agriculture registering high growth rate (CAGR of 8. 52 percent) from 2004-05 till 2009-10.

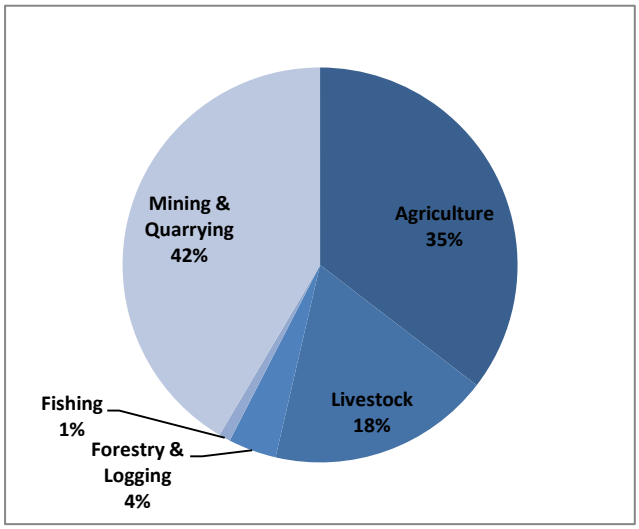


Figure 277 Primary sector contribution to GDDP, 2009-10

Secondary Sector

The contribution of the secondary sector to district GDP in 2009-10 was approximately 18 percent. The sector has shown a CAGR of 6.76 percent from 2004-05 till 2009-10, primarily due the contribution of construction sector.

The construction sector has shown an impressive CAGR from 2004-05 till 2009-10.

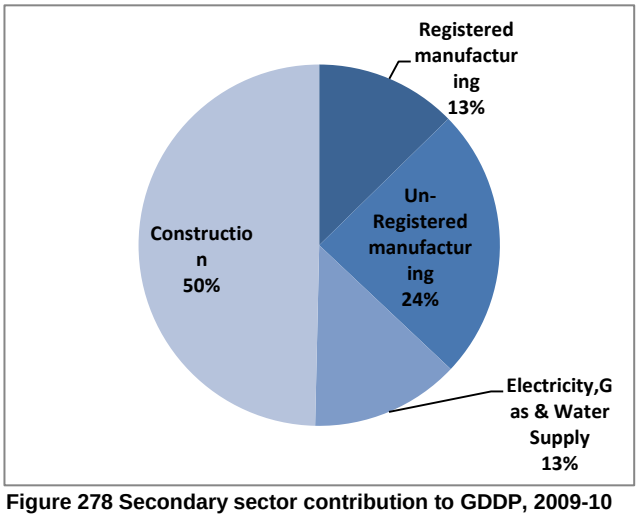


Figure 278 Secondary sector contribution to GDDP, 2009-10

However the growth of manufacturing sector has been negligent with registered manufacturing units growing only by 0.84 percent and unregistered manufacturing units by 4.24 percent from 2004-05 till 2009-10.

Tertiary Sector

The contribution of the tertiary sector has been significant to the district's economy over the years. In the year 2009-10, the contribution of the tertiary sector was approx. 49 percent to the district's GDDP. The sector has shown the highest CAGR among the three sectors of 7.91 percent from 2004-05 till 2009-10, primarily due the trade, hotels and restaurants sector.

Three sectors which have shown a high CAGR from 2004-05 till 2009-10 are trade, hotels and restaurants sector (10.28 percent), communications (approx. 15 percent) and BFSI (approx. 14.77 percent). Real estate and other services grew by approx. 5.31 percent from 2004-05 till 2009-10.

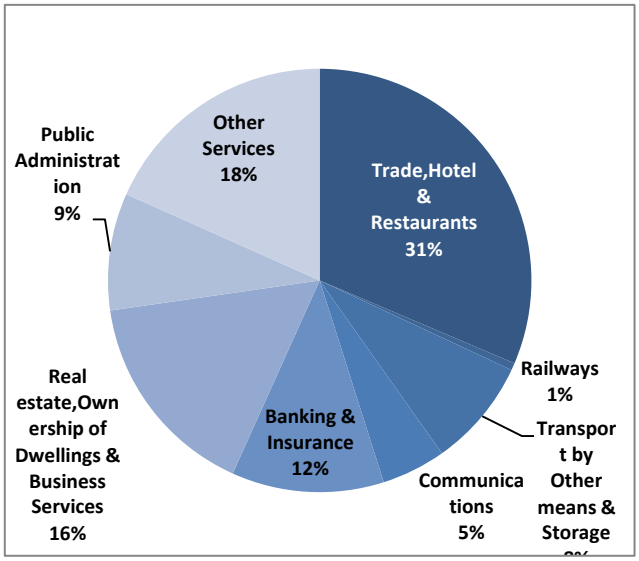


Figure 279 Tertiary sector contribution to GDDP, 2009-10

Industry Mapping

The Nizamabad district is connected with the state capital Hyderabad and with Nagpur in neighboring Maharashtra via road and rail. The district is the largest turmeric producing region in the state and it accounts for nearly 40 percent of the overall production of turmeric in the country.

Large & Medium Industries

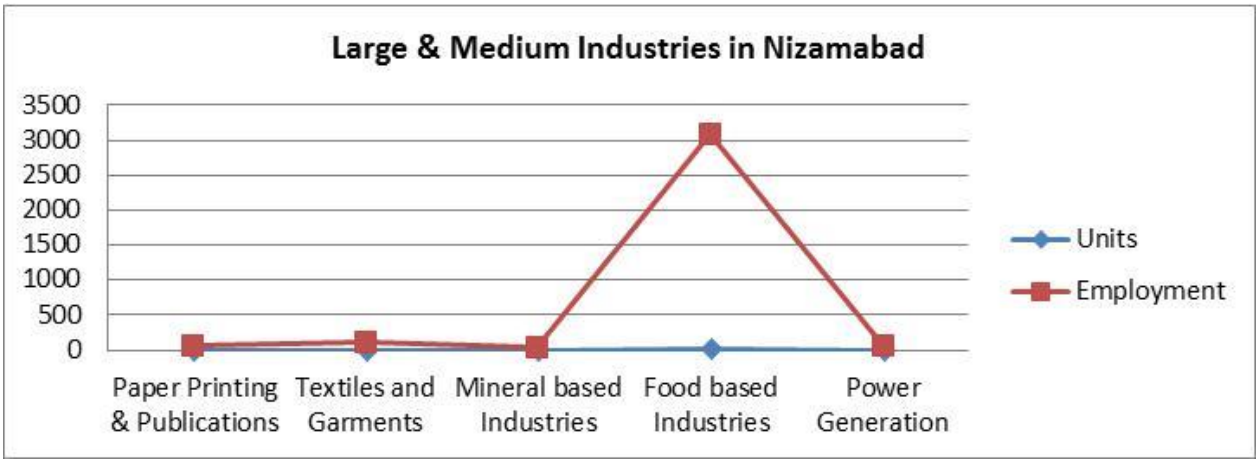


Figure 280 Large Scale & Medium scale Industries,DIC

The district has 10 large and medium scale industries with an investment of INR 2,390 million. Some of the prominent sectors in Nizamabad district attracting investments are Nizam Deccan Sugar, and various minerals and food-based industries.

Small Scale Industries

Nizamabad has around 4,523 tiny and small scale industries. Food-based industries appear to be attracting the highest investments. Employment trends also reveal that the workforce requirement is higher in food-based industries followed by forest-based industries. Khammam District is endowed with rich mineral resources besides forest resources. The Principal mineral deposits are Coal, Iron Ore, Barytes, Quartz, Graphite, Copper Ore, Granite.

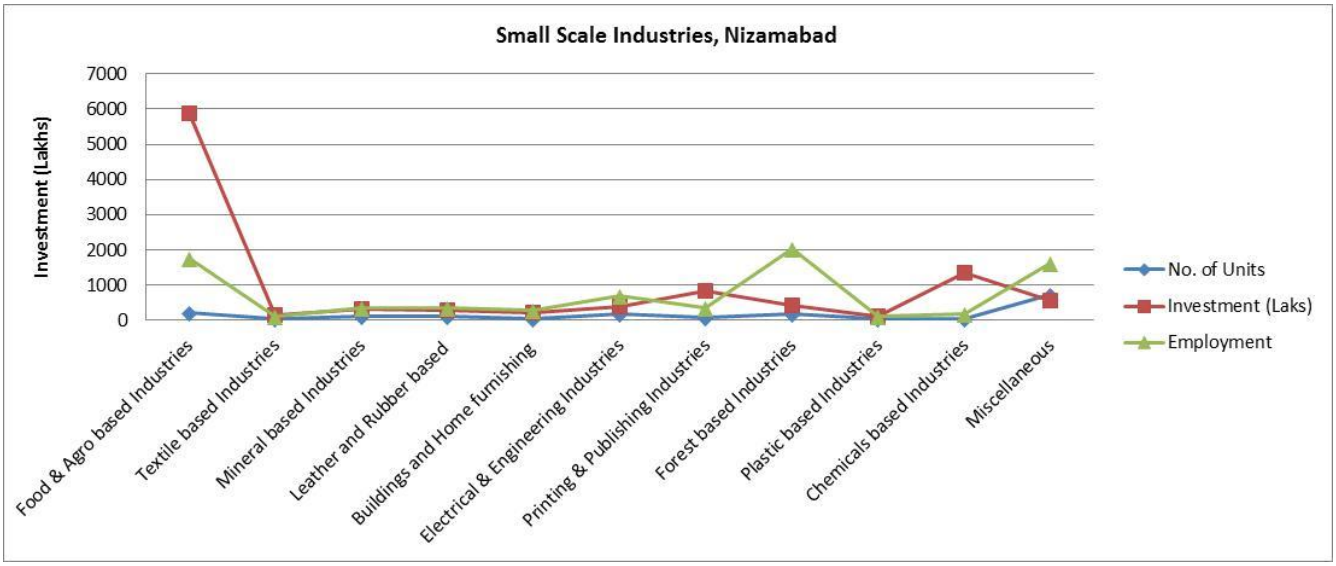


Figure 281 Small Scale Industries, DIC

4.15.3 Education Infrastructure and Utilization

Education sector plays an important role for socio-economic development of the state at large.

However, in Nizamabad, education is agenda priority because the district literacy rates lag behind the state average. In Nizamabad district education is high on the agenda due to a low literacy rate that is the fifth lowest in Andhra Pradesh. . At present, the district has inadequate schools and colleges.

Schools	Total Number	No. of Enrollments
Primary Schools	1893	180330
Upper Primary Schools	571	87716
Secondary Schools	727	191705
Higher Secondary Schools	840	991

Table 156 Schools with enrolment details Source: Statistical Abstract, Andhra Pradesh – 2011

As per the Census 2001, the total number of graduates and above in Nizamabad district is recorded as 51,926. It is interesting to note that out of the total population of graduates and above, 77 percent were male. Nizamabad's graduates make up just 1.83 percent of Andhra Pradesh's total graduates.

Nizamabad is also struggling to keep children enrolled in school. The gross enrolment ratio,\ for classes I-V is 108.88 percent. However, this falls to 91.76 percent by classes VI – VIII and then

to 81.42 percent by classes VIII – X. In contrast, the state's ratios are 100.46 percent, 84.76 percent, and 69.51 percent respectively.

The dropout rates establish an increasing trend over classes I-X of 52.79 percent. Nizamabad will need to put more emphasis on quality of education, while increasing the number of schools, providing incentives to the best teachers, and developing better facilities for students, particularly girls.

Nizamabad also has 11 private engineering colleges. These colleges offer a variety of courses and have a combined intake capacity of approximately 2,115 students per year. Major courses offered include, electronics and telecom engineering, computer science and engineering, electrical and electronics engineering, mechanical engineering, and instrumentation. There are six polytechnic colleges in Nizamabad with a total intake capacity of 1,330 students per annum.

4.16.4 VTI's demand across various trades in Nizamabad district

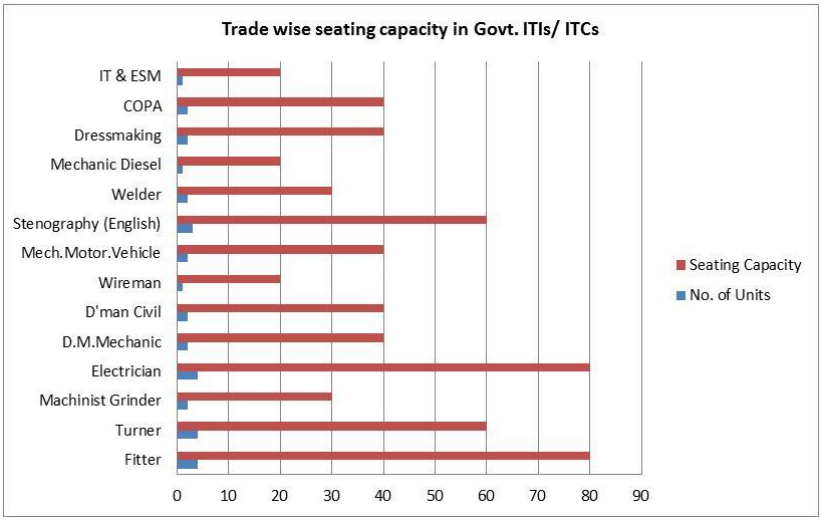


Figure 282 Trade wise seating capacity in ITIs

There are 12 vocational training institutes in Nizamabad. The overall intake of all ITIs and ITCs is around 7,399 students per annum. Out of these, five institutes are government ITIS and the rest are private ITCs. These institutes impart training in various trades like dressmaking, electronics, stenography, fitter, turner, welder, electrician, mechanics, and COPA. The new trades are introduced in the ITIs and ITCs based on the emerging industry demand. At present, trades like those for fitters, electricians and stenographers are in demand.

All the trades are permanently affiliated to National Council of Vocational Training of Director General of Employment and Training.

4.16.5 Placement & Absorption Trend

Candidates looking for jobs can approach the employment exchange or go through the government's Rajiv Yuva Kiranalu mission, which helps unemployed youth find employment. However, as the diagram shows, most of the candidates among the rural and urban unemployed youth are either absorbed by private institutes with direct industrial linkages or through direct placements by industries offering job specific training. The Job Mela organized at the district level as a part of the ongoing Rajiv Yuva Kiranaluhas had very little success.

Nizamabad district has one employment exchange. The number of candidates in its live register during 2009-10 was 55,530. However, only around 42 candidates actually got placed. On the whole very few placements are taking place through the employment exchanges.

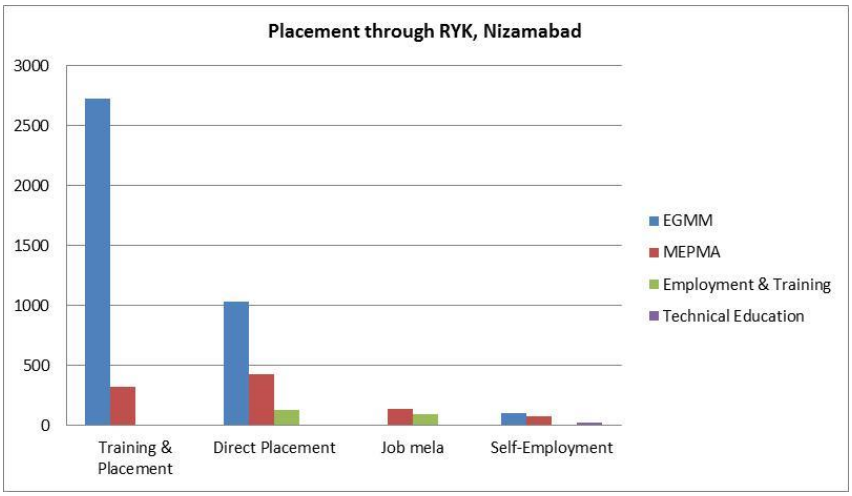


Figure 283 Placements through RYK; Source: RYK state level placements monitoring report, June 2012

4.16.6 Sector wise mapping of industries in Nizamabad

Industry in Nizamabad is fast becoming a major source of growth in the district. Nizamabad has a huge potential for development of industries because of its strategic location, proximity to Hyderabad, easy access to water resources, and adequate supplies of power. Looking at the investment trend across various sectors, it is pertinent to note that the sectors like sugar, maize starch, dairy, poultry, cold storage, warehousing, cotton ginning, floriculture, and fruit processing would be the prime movers of development in the near future besides providing significant employment opportunities.

Industry wise sector mapping					
NSDC (High growth sectors)	**Units**	**Employment**	**High**	**Medium**	**Low**
Automobile & Auto components					
Food Processing (Food beverages and Tobacco products)	581	7349			
Electronics Hardware	110	255			
Textiles and Garments	36	111			
IT					
Tourism, Hospitality and Travel	632				
Building and Construction	24	276			
Engineering based industries	97	455			
Chemicals and Pharmaceuticals	22	173			
Transportation/Logistics/Warehousing and Packaging	5	55			
Healthcare	45	188			
Education/ Skill Development	16	173			

Industry wise sector mapping					
Banking/ Insurance and Finance	225				
Manufacture of Wooden furniture	81	265			
Forest based industry	155	2036			
Leather and footwear	86	281			
Paper and Publication	56	507			
Rubber and Plastics	56	360			
Minerals based industries	55	820			
Service based industries (Repairs & maintenance: R&D)	14	567			

High	Units>200, emp>1000 - all applicable
Medium	Units>100, emp>500 - all applicable
Low	Units>10,emp>30 - all applicable

Table 157 Sector wise mapping of Industries; Source: DIC

Nizamabad is among the more industrially developed districts of the state with significant investments in large and medium scale industries. It has flourishing agro-food and tourism industries, and the district is famous for its handloom. Some of the leading industries in this district are Nizam Deccan Sugar Factory, Vazra Granites, Sukhjit Starch Mill and Nizamabad Agro Private Ltd.

4.16.7 Composition of workforce

According to the provisional Census 2011 data, the total workforce in Nizamabad district is expected to rise by 15 percent against the 2001 data. It is pertinent to note that the total workforce participation rate in Nizamabad is 49.4 percent, making it the fourth highest in the state. Out of the total working population, the males account for around 54.3 percent. However, Nizamabad district has a high female workforce participation rate, which exceeds the state average by 9.3 percentage points.

In Nizamabad district, 31.35 percent of the main workers are cultivators, followed by 23.37 percent who are agricultural laborers, and 14.57 percent who work in household industries, and 30.71 percent employed in other industries. However, among the marginal population, 62.62 percent are agricultural laborers. The workers population in the district indicates that cultivators followed by agricultural laborers dominate the total working population. It is also observed that the proportion of marginal workers in this district is higher than the state figure.

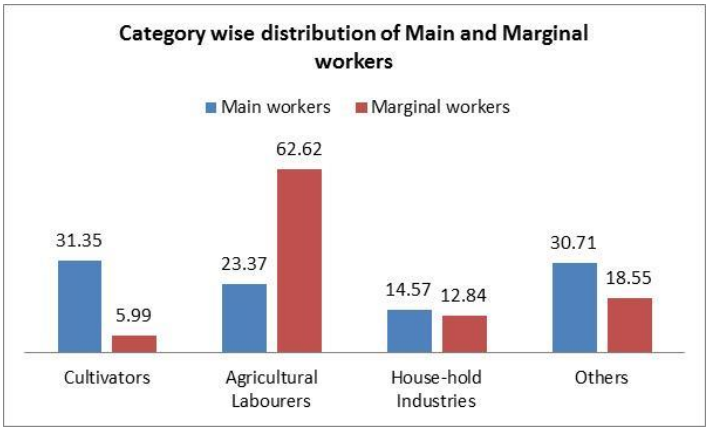


Figure 284 Category wise distribution of main and marginal workers; Source Census 2001

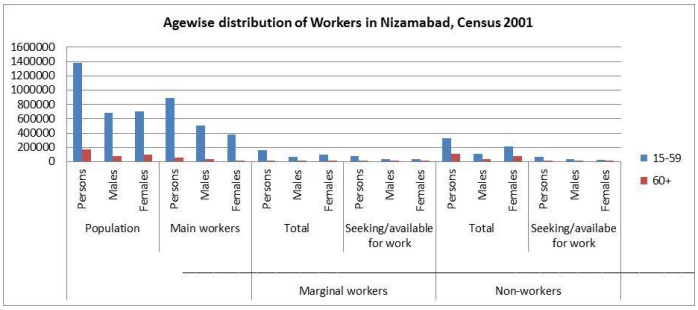


Figure 285 Agewise distribution of workers

In Nizamabad district, the workforce participation rate has shown a small increase for both males and females. There has also been a decline in the proportion of the main workers with a corresponding increase in the proportion of the marginal workers. Another significant aspect to be noticed is that the number of agricultural laborers is almost twice the number of cultivators- that is, actual farmers. This may be because, due to the difficult agricultural conditions in the region, which are pushing marginal and small farmers into agricultural labor.

It is estimated that in Nizamabad district, a major proportion of the workers in the age group of 15 - 59 years fall into the main workers category. Interestingly, among the non-workers and marginal workers, females in the age group of 15 - 59 outnumber males.

4.16.8 Projected Workforce Demand

Nizamabad district is part of the Telangana region and has significant agricultural potential. Rice mills play an important role in the industrial sector. Major exportable item in this district are boiled rice, rice bran oil, rice flakes, particle boards from paddy husk, corn flakes, and maize. Maize is cultivated over 100,000 hectares, and some of it is turned into corn flakes or cattle feed, which has strong market potential, both domestic and for export.

Agricultural & horticulture are important economic activities in this district. Nizamabad has several micro units for cotton ginning, spice grinding, seed oil production, turmeric cultivation for exports, fruits processing units etc. Other units in the district include ones for wooden furniture, wood wool, beedies, broom sticks, incense sticks, soap nut and sikakai powder units, and tamarind seed starch units are also present in the district. These units have huge potential to produce export quality products and grow in future.

Thus, as indicated below, the district will witness a huge incremental manpower demand in food processing sector. Although, the district currently employs high manpower in agriculture sector, but in years to come the district will witness manpower migration from this sector to other growing industries in secondary and tertiary sector.

Incremental	2012-2017			2017-2022		
Industry	Skilled	Semi-Skilled	Minimally Skilled	Skilled	Semi-Skilled	Minimally Skilled
Agriculture & Allied Activities	551	2756	10473	-2136	-10678	-40575
Mining & Quarrying	-399	-479	-455	-592	-465	-635
Construction	11342	14525	6457	9242	9902	14787
Tourism, Travel & Hospitality	58659	-154	-4409	32193	14487	9658
Transportation, Logistics, Warehousing & Packaging	893	455	152	332	169	56
IT & ITES Sector	6564	687	125	6826	715	130
Banking & Financial Services Insurance	9124	220	-483	5500	2475	1650
Real estate	-629	-205	-3316	-2077	-2226	-3324
Other Services	816	-6693	-5578	-8969	-4049	-2663
Electricity, gas & water supply	0	0	0	0	0	0
Food processing	41695	14625	27070	41695	25017	16678
Chemicals & Pharmaceuticals*	55	31	24	55	33	22
Rubber and plastic products*	-328	-192	-136	-328	-197	-131
Metals & non metallic products*	-3875	-2332	-1543	-3875	-2325	-1550
Wood & Paper products	-95	-96	1	-95	-57	-38
Total	124373	23150	28381	77771	32802	-5934

Table 158 Incremental Workforce demand projections for the district

4.16.9 Skill Gap Analysis

The skill gap analysis was performed by undertaking a primary research on the employers through the survey instrument. A structured questionnaire designed to map the current and the future skill requirements of the industries identified in the district on the basis of manpower absorption and production in high growth industries. The analysis factored in industry linkages with vocational training institutes, employment exchange and with other sources for workforce absorption and retention. It highlights the mismatch between industry skill requirements and the skill pool emerging. The skill gap for the district for 2012-17 and 2017-22 based on projections is represented in the table below.

Overall, the supply of minimally skilled labor exceeds demand over the years in the district. The supply for skilled and semi skilled manpower remains low in comparison to industry demand.

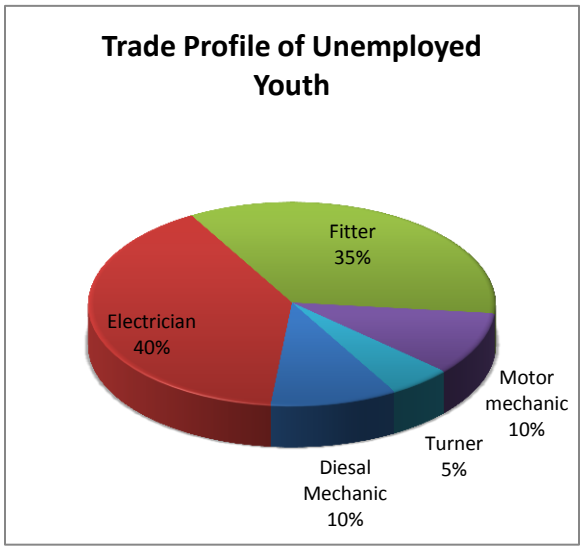
Workforce Demand & Supply Gap						
	2012-2017			2017-2022		
Sectors	**Skilled**	**Semi-Skilled**	**Unskilled**	**Skilled**	**Semi-Skilled**	**Unskilled**
Demand	124373	23150	28381	77771	32802	-5934
Supply	7975	7348	110530	3086	12656	99110
Gap	116398	15803	-82149	74685	20146	-105044

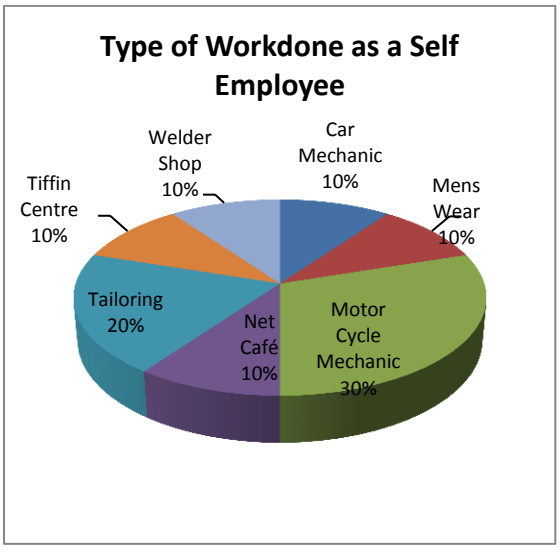
Table 159 Incremental Skill Gap for the district till 2022

4.16.10 Youth Aspirations

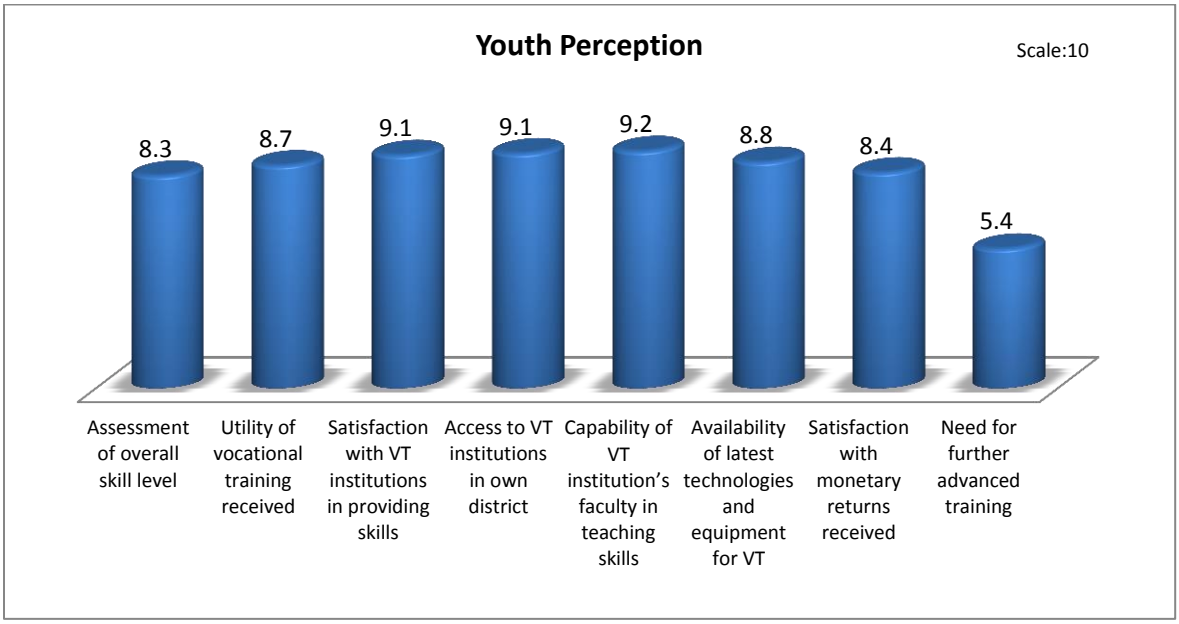
The youth survey study was primarily undertaken through a survey instrument. Structured questionnaires were designed to capture youth aspirations and perceptions across the four categories of employed, self-employed, unemployed, and trainees.

In-depth interactions were held with 60 respondents across the various categories of youth to provide deeper insight and understanding into their aspirations and perceptions.





Parameters considered by District's youth while opting for vocational training



On an average, youth of Nizamabad were satisfied with the current vocational training. Youth rated the trainings at a higher level indicating their high level of satisfaction. Still, they were not motivated to take further skilling courses.

4.16.11 Recommendations: Skill Development Eco System

The district has various manufacturing units, small & large, which will require skilled manpower to sustain their growth. Currently, none of the VTIs cater to the requirements in SMEs. Other trades in which trainings that will be required are construction and service sector. Training providers catering to the specific market need with customized programmes, life skills training, etc should be encouraged by NSDC.

Sectors	Growth Opportunities
Food Processing	• In terms of anticipated employment, the food processing sector will have highest manpower requirement of approx. 1.6 lakh people by 2021-22. • Nizamabad rice mills is one of the largest cluster in the district with estimated turnover of INR 2000 million. • APIIC has identified Armoor are for spice/agro products processing cluster.
Trade, travel and hospitality	• Trade, hotels and restaurants contributed highest (31 percent) to the tertiary sector DDP in 2009-10. • The sector witnessed a high growth rate of 10.28 percent from 2004-05 till 2009-10.
Construction	• Construction sector contributed highest (50 percent) to the secondary sector DDP in 2009-10. • The sector requires approx. 66,000 skilled manpower till 2021-22.

Table 160 Key manpower demand in the district

The figure above shows total manpower required till 2022 at various skills levels required by the industry. The key stakeholders' contribution to achieve the target would be as follows:

State: The district is expected to remain largely dependent on unorganized sector such as agriculture. Food processing and construction sector.

Action Plan:

1. Since large population will still be employed in unorganized sector, State will have to collaborate with local bodies such NGOs, to reach out workers to take spread awareness about benefits of vocational training.
2. State will have to collaborate with Industry, to define wage structures of skilled workers in unorganized sector such as construction and agri allied sector.

Training Partners:

Action Plan:

1. Training partners need to collaborate with local NGOs to mobilize students for vocational courses. A large number of youth will be shifting from agriculture sector to organized sectors such as retail and hospitality.
2. Offer multi skilling courses to the workers employed in agri sectors to address seasonal unemployment.
3. Certify and provide placement support to those graduating from the MES trades to catalyze transition into the formal sector.

Industry: The primary sectors of high human resource requirement would be construction, servicing and repairing, food processing, retail etc.

Action Plan:

1. Provide incentives to the workers to take up skilling courses by restricting wages.
2. Collaborating with state and training partners to create a career path for the workers to enable vertical and cross functional mobility.
3. Engage in placement campaigns by the training institutions; assist in expectation settings of new entrants in the labor market.

NSDC:

Action Plan:

1. NSDC should encourage training partners who can offer multi skilling courses.
2. NSDC should work on a mechanism that can allow certification of informally acquired skills by workers in unorganized sectors.

4.17 Prakasam

This chapter highlights the economic base and occupational structure of the district. It identifies the high-impact industries and skills needed to match the expected growth.

The latter part of the chapter provides the projected workforce demand and supply in the coming years and the optimization plan for Prakasam.

4.17 Prakasam

4.17 1 Prakasam District Demographic Profile

Prakasam District at a Glance				
Population	**Prakasam District**		**Andhra Pradesh**	**Remarks**
	Provisional Census 2011	**Census 2001**	**Provisional Census 2011**	
Total Population	3392764	3059423	84665533	
Total Population – Male	1712735	1552332	42509881	
Total Population – Female	1680029	1507091	42155652	
Population Growth	10.90%	10.88%	11.10	
Area Sq. Km	17626		275100	
Density of Population (Density/Area sq.Km)	174	192	308	
Proportion of Andhra Pradesh population	4.01%	4.01%		
Decadal growth of population (2001 - 2011)	10.90%	10.88%	11.10%	
Literacy rate	63.53	57.38	67.66	
Male Literacy	73.53	69.35	75.56	
Female Literacy	53.40	45.08	59.74	
Sex ratio (per 1000)	971	981	992	
Worker population participation rate		50.3	45.7	Census 2001
Cultivators to total workers		24.6	22.52	Census 2001
Agriculture laborer in workforce		43.8	39.64	Census 2001
Household workers		3.70	4.71	Census 2001
Other industry and services		29.9	33.13	Census 2001

Table 161 Prakasam district at a glance

Prakasam is one of Andhra Pradesh's coastal districts. One of its distinct features is its varied geography. While Prakasam's coastal areas consist of fertile plains, other parts consists of stony plains and hills with dry shrub forests. That means the district has a variety of soils including district has variety of soils like black cotton, red, red sandy loamy, and sandy loamy. Average rainfall in Prakasam is 751 mm. The district was formed in 1970 by incorporating parts of Kurnool, Guntur and Nellore. It is bounded on the south by Bay of Bengal. There are 56

mandals and three revenue divisions in the district, Ongole, Kandukur, and Markapur. The Markapur area is known for its slate industry. Prakasam's principal minerals are barytes, quartz silica sand, and iron ore. The district's human development index of 0.532 is slightly lower than the state's average of 0.537. Prakasam's total area is 17,626 sq.km, which accounts for 4.01% of Andhra Pradesh's total area. It is also the fourth largest district in the state.

As per provisional Census 2011 data, Prakasam district has a population of 3.392 million. Its sex ratio shows a decline, with a 2011 figure of 971 females for every 1000 males compared to the 2001 Census figure of 981. The urban population made up 19.52 percent of the total population as per provisional Census 2011 data. In 2001 this figure was 15.28 percent. The district recorded a per capita income of INR 36,593 compared to state average of INR 31,847 at constant prices 2004-05. Despite the rise in the proportion of urban dwellers, most of Prakasam's population relies on agriculture.

The literacy rate in Prakasam was 63.53 percent in 2011 compared to 57.38 in 2001. Gender wise, around 73.53 percent of males and 53.40 percent of females are literates. It is pertinent to note that the total workforce participation rate is of 50.3 percent and is the third highest in the state. The total male working population is 57.9 %) against the female working population of 42.5 percent. Despite this, the proportion of the female working population in Prakasam, which is 8.2 percent, is higher than the figure for the state.

The main worker population makes up 42.7 percent of the total working population, which is higher than the state average of 38.1 percent. This is followed by marginal workers at 7.5 percent and non-workers at 49.8 percent. Out of those classified as main workers, 39.05 percent are agricultural laborers, while 27.53 percent are cultivators. Another 29.69 percent work in other industries, and 3.74 percent are engaged in household industries. All in all, besides agricultural activity, Prakasam's main workers are employed in industries like tourism, hospitality, and construction.

4.17. 2 Economic Profile

The district's Gross district domestic product (GDDP) has grown at the growth rate (CAGR) of 7.60 percent from 2004-05 till 2009-10. In 2009-10, tertiary sector contributed approx. 44 percent to the GDDP primarily due to the contribution of trade, hotels and restaurants sector followed by primary sector which contributed approx. 36.5 percent to the district's GDDP.

The chart below shows GDDP of primary, secondary and tertiary sector from 2004-05 till 2009-10.

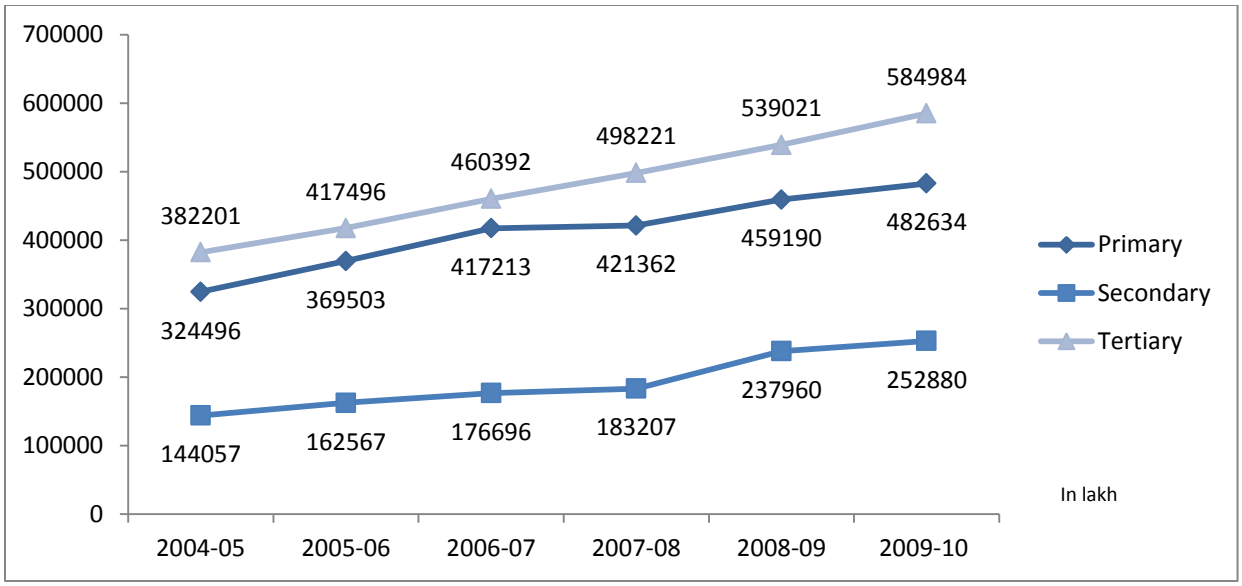


Figure 286 Sectoral contribution to GDDP, Prakasham

Primary Sector

The primary sector (agriculture, forestry &logging, livestock, fishing and mining & quarrying) contributed approx. 36.5 percent to the GDDP in 2009-10. Agriculture sector remained as the highest contributor to the primary sector, contributing approx. 57 percent to the primary sector in 2009-10, followed by livestock (24 percent), mining and quarrying (8 percent), forestry and logging (4 percent) and fishing (7 percent).

The CAGR for primary sector was approx. 6.8 percent from 2004-2005 till 2009-10 with agriculture registering high growth rate (CAGR) of 8 percent from 2004-05 till 2009-10.

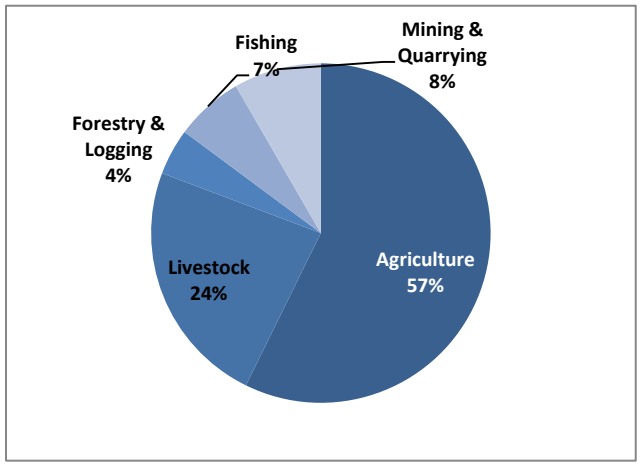


Figure 287 Primary sector contribution to GDDP, 2009-10

Secondary Sector

The contribution of the secondary sector to district GDP in 2009-10 was approximately 19 percent. The sector has shown a CAGR of 9.8 percent from 2004-05 till 2009-10, primarily due the contribution of construction sector.

The construction sector has shown an impressive CAGR from 2004-05 till 2009-10.

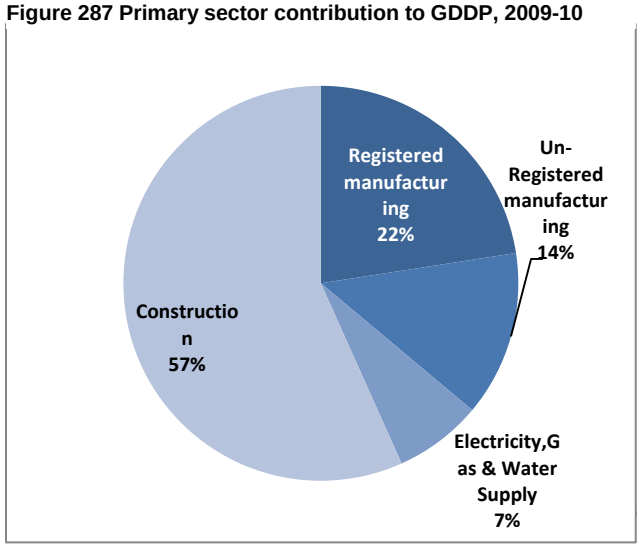


Figure 288 Secondary sector contribution to GDDP, 2009-10

However the growth of manufacturing sector has also been high with registered manufacturing units growing (CAGR) by 13.9 percent and unregistered manufacturing units by 4.24 percent from 2004-05 till 2009-10.

Tertiary Sector

The contribution of the tertiary sector has been significant to the district's economy over the years. In the year 2009-10, the contribution of the tertiary sector was approx. 44 percent to the district's GDDP. The sector has shown CAGR of approx. 7.35 percent from 2004-05 till 2009-10, primarily due the trade, hotels and restaurants sector.

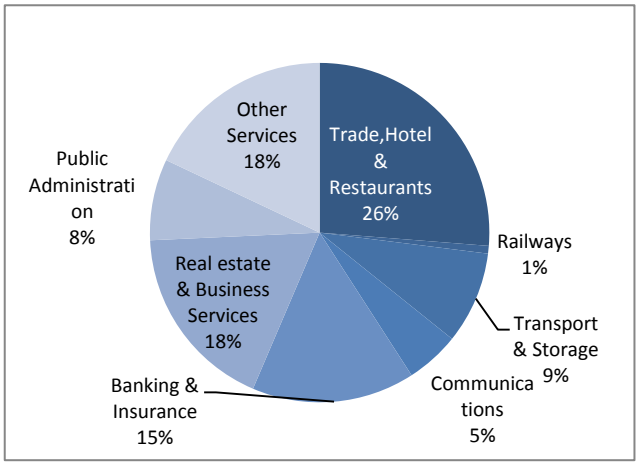


Figure 289 Tertiary sector contribution to GDDP, 2009-10

Two sub-sectors which have witnessed a high CAGR from 2004-05 till 2009-10 are communications (13.24 percent) and BFSI (12.86 percent). The trade hotels and restaurants have contributed highest to the growth of the sector; it has shown a CAGR of approx. 7.4 percent from 2004-05 till 2009-10.

Industry Mapping

Prakasam is predominantly an agricultural one, where industrial development has largely come from agro-based industries. Still, these industry contribute 3.80% of Andhra Pradesh's GDP at constant prices from 2004-05 to 2009-10.

Prakasam district is advantageously located, being well connected with both Hyderabad and Chennai by road and rail networks. The district has 10 industrial areas. Agriculture is the backbone of the district's economy and a large chunk of the working population depends on it. The major crops grown are in Prakasam are tobacco, paddy, groundnut, cotton, and pulses. Prakasam is also endowed with several mineral resources. These include iron ore, slate, silica sand, barytes, granite, quartz and kankar limestone. There is considerable demand overseas for barytes, slate and granite, while silica sand and quartz are in demand from Indian industry.

Large & Medium Industries

According to the District Industries Centre report, Prakasam has 54 large and medium registered units in tobacco processing, dairy development, mining, and textiles. The annual industrial growth rate is 10.92 percent. Major companies in the iistrict includeITC, Amaravathi Textiles, Jaya Venkata Ramana Spinning Mills, and Priyadarshini Spinning Mills. The total investment by these industries in the district is approximately INR 9,305.18 million and approximately 9,749 people are employed by industries. Some other major exportable items in the district include sea food, granite blocks, granite monuments, and yarn.

Small Scale Industries

There are 28,088 small and tiny industries, both registered and unregistered, in the district with a capital investment of INR 1,506.6 million, providing employment to 1,65,728 people.

Prakasam district has clusters of handlooms, handicrafts and mineral products enterprises scattered across the district. There is also major demand for products from medium scale paper manufacturing units. Markapuram and its surrounding areas have rich slate deposits, while Chimakurthy is famed for its galaxy granite deposits, which are not found anywhere else in the world. Chirala, Vetapalem, Ippurupalem, Chimakurthy and Kothapatnam, Kanigiri, Besthavaripeta, Inkollu and Naguluppalapadu, and surrounding areas are famed for handloom cloth and traditional weavings, while the Addanki area is known for its clusters of mat weaving and leaf fibre products. Prakasam district also has many makers of incense sticks or aggarbathis.

4.17.3 Education Infrastructure and Utilization

As per Census 2001, the total number of graduates and above in Prakasam district was 92,527. It is interesting to note that out of the total population of graduates and above, 78 percent were male and 22 percent female. All in all, the district's graduates made up 3.27 percent of Andhra Pradesh's total graduates population.

Schools	Total Number	No. of Enrollments
Primary Schools	3086	213820
Upper Primary Schools	524	79173
Secondary Schools	638	172815
Higher Secondary Schools	6	3183

Table 162 Schools with enrolment details Source: Statistical Abstract, Andhra Pradesh - 2011

According to provisional Census 2011 data, the gross enrolment ratio for classes I-V is 99.67 percent, followed by 78.3 percent in classes VI – VIII and 57.35 percent in classes VIII – X. In contrast, the state averages are 100.46 percent, 84.76 percent, and 69.51 percent respectively. The dropout rates show an increasing trend over class I-X of 54.02 percent. The dropout rate in Prakasam district in higher classes is higher than the state figure (46.21 percent) by 9.44%. Prakasam district will need to emphasize quality of education, increase the number of schools, and provide incentives to the best teachers while providing better facilities for students, particularly girls. For technical education, there are total 21 private engineering colleges. Prakasam has no government colleges. These

Educational Institutions	Total Number
ITIs	29
Polytechnics	16
Engineering Colleges	21
Medical/nurses Colleges	4
Pharmacy Colleges	10

Table 163 Education Statistics; Source: Statistical Abstract, Andhra Pradesh – 2011

private engineering colleges offer a variety of courses and have a combined intake capacity of approximately 6,817 students per annum. Major courses offered include computer science and engineering courses in electronics, electrical, telecom, computers, mechanical and instrumentation. There are also 16 polytechnic colleges with total intake capacity of 3,990 students per annum.

4.174 VTI's demand across various trades in Prakasam district

There are 14 vocational training institutes in the district. The overall intake of all ITIs and ITCs is around 1,960 students per annum. Out of these vocational training institutes, only two are government ITI and the rest are private ITCs. These institutes impart training in various trades like electrician, fitter, mechanic, plumber, instrument mechanic, welder, carpenter, dress making, electronics, masonry radio and television mechanic, and turner stenographer etc. New trades are introduced based on industry demand. Out of these, trades like those for fitters, followed by electricians, and stenographers are in high demand.

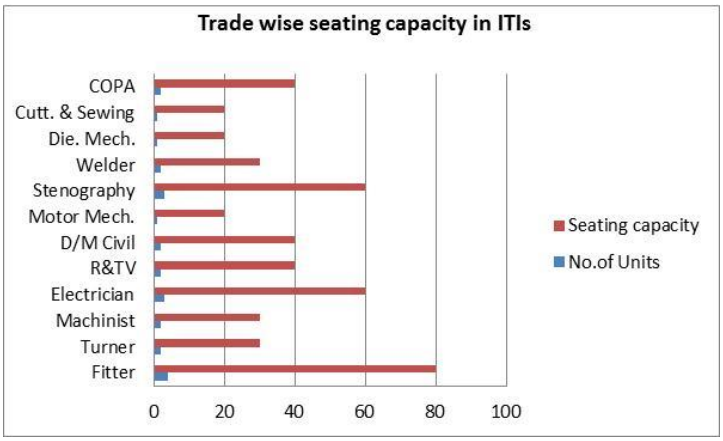


Figure 290 Trade wise seating capacity in ITIs

All the trades and units are permanently affiliated to National Council of Vocational Training of the Director General of Employment and Training.

Government VTI Trades		Private VTI Trades
COPA	Stenographer	COPA
D/M Civil	Welder	D/M Civil
Mechanic Diesel		Mechanic Diesel
Electrical		Electrical
Fitter		Fitter
R & TV		Welder

Table 164 Courses offered in government and private VTIs (sample), Prakasam

The Government VTIs sampled for the study offer eight different trades for training while the private VTIs offer 6 trades. The electrical trade appears to be the most popular in both government and private VTIs. Also, as Figure 4 indicates, the strength of the electrical trade in private VTIs is more than three times that of government VTIs. However, it appears the number of actual trainees compared to the number of approved trainees varies across most. Gaps between actual and approved strengths of trainees were significant for the COPA trade in

government VTIs and the electrical trade in Private VTIs. Also, over the years, demand for the D/M Civil, COPA and electrical trades increased in both government and private ITIs.

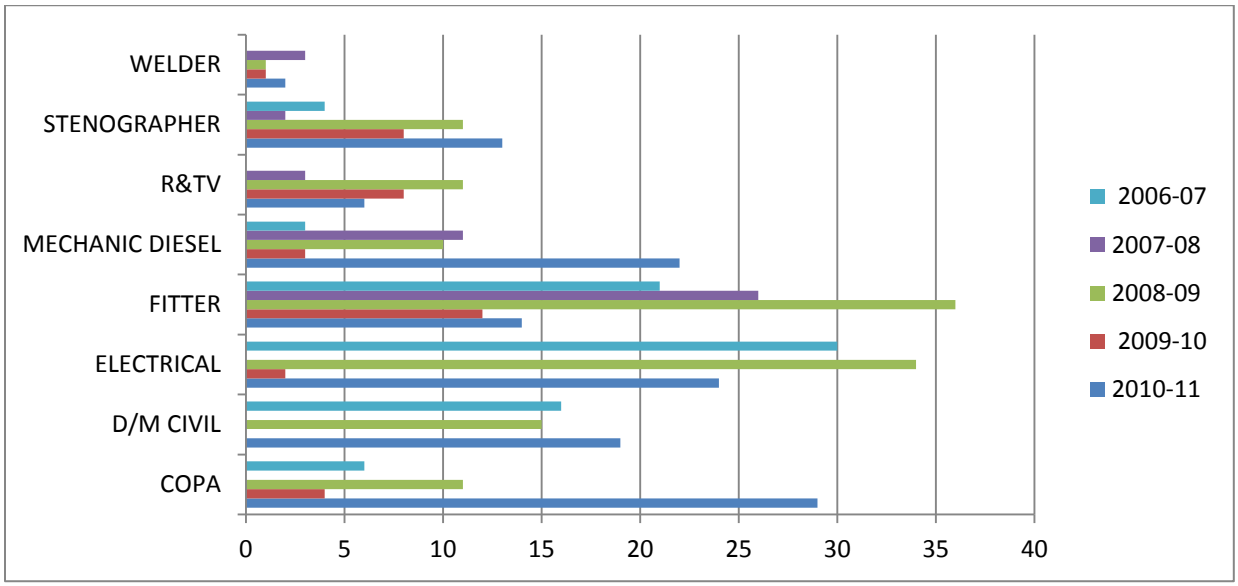


Figure 291 Number of seats occupied over the past years in Government ITIs

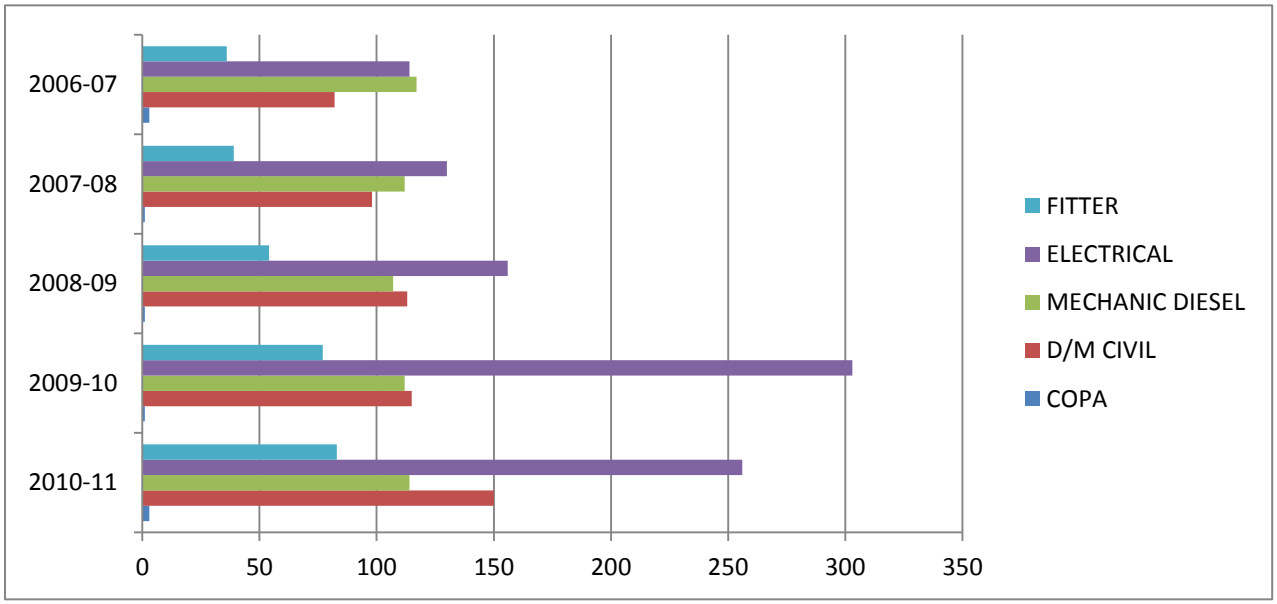


Figure 292 Number of seats occupied over the past years in Private ITIs

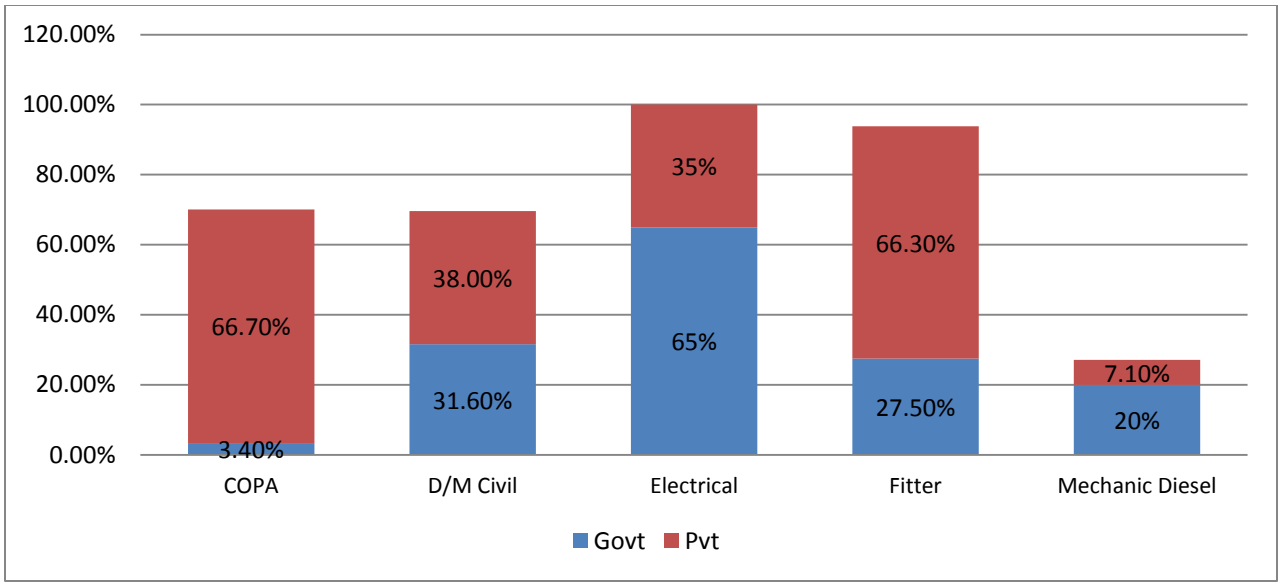


Figure 293 Placement percentage in various courses in Government and Private VTIs

An overview of placement records indicates placement levels are relatively low at both government and private VTIs. Many of the courses are less oriented to direct placement and more suitable for self-employment. In case of private VTIs the highest paid jobs were in the COPA, D/M Civil, and diesel mechanic trades (Rs. 6000/Month). Though many of the placements occurred through campus interviews, a good number of students got jobs by proactively approaching industry.

Table 165 Staff status at VTIs

	Positions	Approved	Actual
Government VTIs	Managerial	25	24
	Academic	49	36
	Support	22	14
Private VTIs			
	Managerial	20	20
	Academic	63	59
	Support	22	19

Another problem is understaffing. Government VTIs appear to be understaffed in their academic, support and also managerial departments. In the case of private VTIs, the shortfalls are much lower, though even slight understaffing can create challenges.

4.17.5 Placement & Absorption Trend

Prakasam district has two employment exchanges and during 2009-10 there were 60,358 candidates in the live register. However, only around 20 candidates were placed through the exchanges. Besides the employment exchanges, authorities also operate the Rajiv Yuva Kiranalu, which focuses on offering placements to educated youth. However, its Job Mela has had little success.

Indeed, as the chart below shows, most unemployed youth are absorbed by private institutes with direct industrial linkages offering training and development. However, there has some absorption through direct placements by industries offering job specific training linked to placement.

4.17.6 Sector wise mapping of industries in Prakasam

Prakasam has great potential for development of its industries, with easy access to water resources and adequate supply of power and better marketing facilities. The spread of various units as well as employment trends, indicate that sectors like textiles, food-based industries, and paper will be the prime movers of development in Prakasam in the near future. These sectors would provide significant employment opportunities across the categories of skilled, semi-skilled and minimally skilled workers.

Industry wise Sector Mapping						
NSDC (High growth sectors)			**Units**	**Employment**	**High**	**Medium**	**Low**
Food Processing (Food beverages and Tabacco products)			799	10364			
Electronics Hardware			4	32			
Textiles and Garments			21	1152			
Engineering based industries			16	122			
Chemicals and Pharmaceuticals			13	195			
Tourism, Hopitality and Travel			591				
Transportation/Logistics/Warehousing and Packaging			22	220			
Healthcare			124	222			
Education/ Skill Development			40	486			
Banking/ Insurance and Finance			310				
Manufacture of Wooden furniture			81	682			
Paper and Publication			7	214			
Rubber and Plastics			18	184			
Petroleum	3	30					
Mining & Quarrying	12	72					
Minerals based industries	442	4518					
Service based industries (Repairs & maintenance: R&D)	23	861					

High	Units>200, emp>1000 - all applicable
Medium	Units>100, emp>500 - all applicable
Low	Units>10,emp>30 - all applicable

Table 166 Sector wise mapping of Industries; Source: DIC

In order to understand the trend in the existing market and industrial set up, a stratified sample of ten industries was selected. The selection ensured diversity among the industries.

Sectors	No. of Industries Sampled
Agriculture & Allied	1
Construction Material & Building Hardware	1
Food Processing & Products	1
Machinery, Electricals & Manufacturing	1
Stone Querying, cutting & Polishing	1
Textile & Handloom	5
Grand Total	10

Table 167 Sectors covered with number of industries surveyed in the industry

When employers were asked to rate their expectation from workers on a scale of five, those from two categories: Construction Material & Building Hardware, and Textiles & Handlooms, showed a relatively higher desire for 'worker characteristics', with ratings between four and five. Most other employers rated their expectations between 3.6 and 4.0, indicating greater satisfaction with their employees.

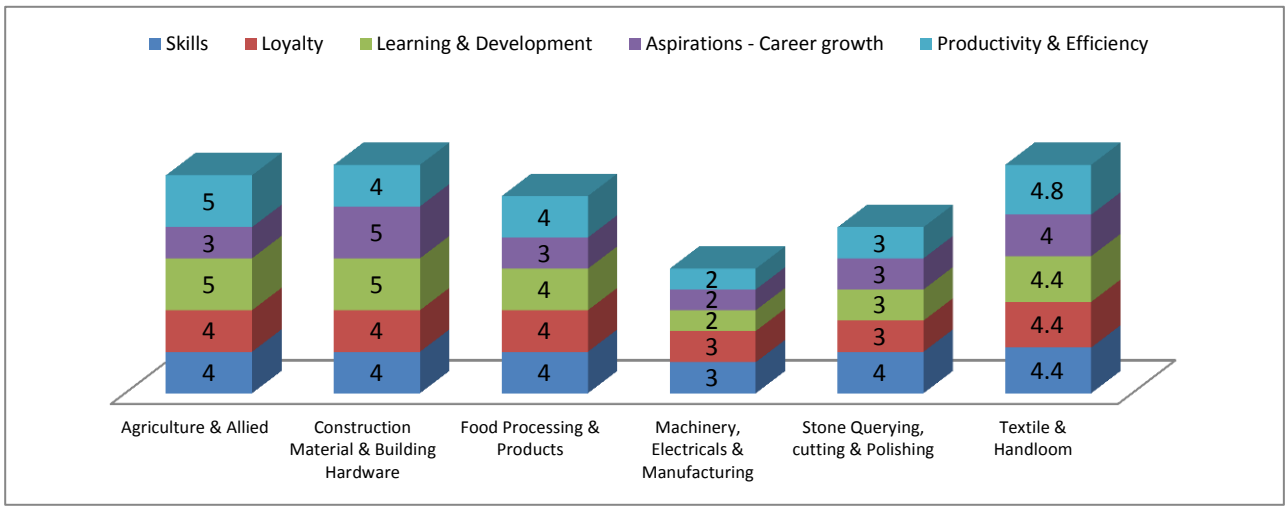


Figure 294 Expectation of employers as per sample survey

The above spread of industries clearly indicates the secondary and tertiary sectors are gaining prominence. There is still largely untapped potential for growth in the agro-food industry, minerals, and hospitality. There is a marginal trend showing demand for employees from emerging sectors like the wood industry, paper printing, petroleum, mining, rubber, and plastics-based industries.

4.17.7 Composition of workforce

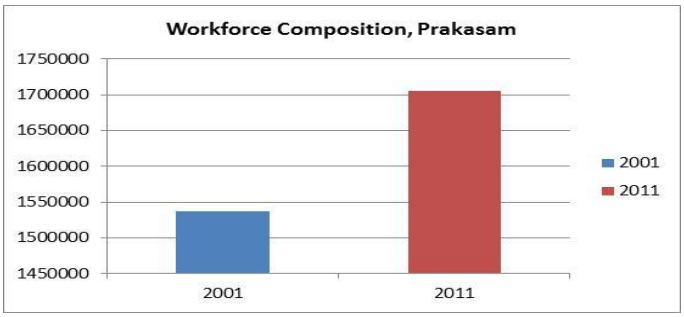


Figure 295 Projected Workforce; Source: Deputy Commissioner of Labour, 2012

The district holds the third highest position in the state when it comes to workforce participation. A noticeable factor in this district is that majority of workforce is engaged in agricultural sector. This clearly indicates the increasing prominence of primary sector. The trend shows that considerable proportion of workforce is

dependent upon the primary sector for their livelihood.

The working population in Prakasam district is expected to rise by 10 percent against Census 2001 data. It is pertinent to note that Prakasam's workforce participation rate of 50.3 percent, as of 2001, is the third highest in the state. The proportion of working males is 57.9 percent and that for females is 42.5 percent. However, it is pertinent to note that the proportion of the female working population in Prakasam district is higher (8.2%) against the state figure.

Out of the full working population, the category of main workers comprised of 42.7 percent of the total, followed by marginal workers at 7.5 percent and non-workers at 49.8 percent. As per the 2001 figures, the proportion of main workers in Prakasam exceeds the state average by 4.6 percentage points. Out of the population of main workers, 39.05 percent are are agricultural laborers and another 27.53 percent are cultivators. Some 29.69 percent work in other industries and 3.74 percent are employed by household industries. A majority of the main workers in Prakasam are employed in agriculture or industries like tourism, hospitality, and construction.

Separately, out of those classified as marginal workers, 70.53 percent were agricultural labors as per the 2001 Census. In Prakasam district, it has been estimated that most workers in the 15-59 years age group fall into the category of main workers. Interestingly, among the non-workers and marginal workers, females in the age group of 15 - 59 outnumber males.

4.17.8 Projected Workforce Demand

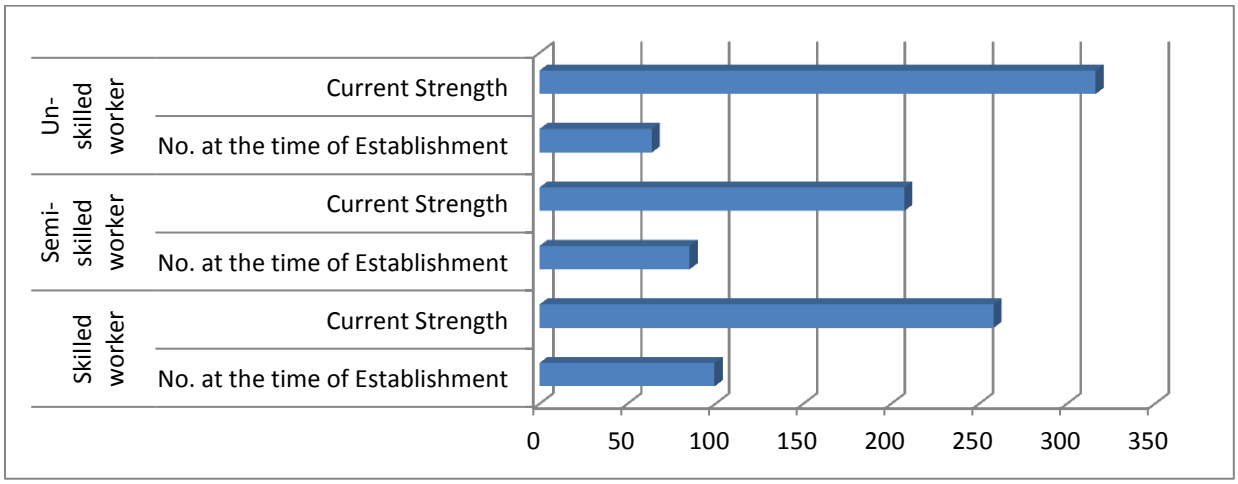


Figure 296 Workforce distributions in sampled industries in terms of skilling as per primary survey

A total of 10 industries were sampled for the survey to represent six major sectors in the district. Availability of skilled, semi-skilled and minimally skilled workers at the time of the establishment of industries, their present strength, and their required strength as projected by the industries, are shown in the above table. Three sectors, namely agriculture, construction material & building hardware, and stone Quarrying, could get skilled workers at the time of establishment. Barring the construction material & building hardware sector, every industry shows an increase in numbers of skilled workers from the time of establishment. However, none of Prakasam's industries expressed the ability to higher more skilled workers. In some industries like food processing & products, machinery, electricals & manufacturing and stone quarrying, the number

of semi-skilled staff has increased. In the minimally skilled workers category, all sectors barring construction material have increased their worker strengths.

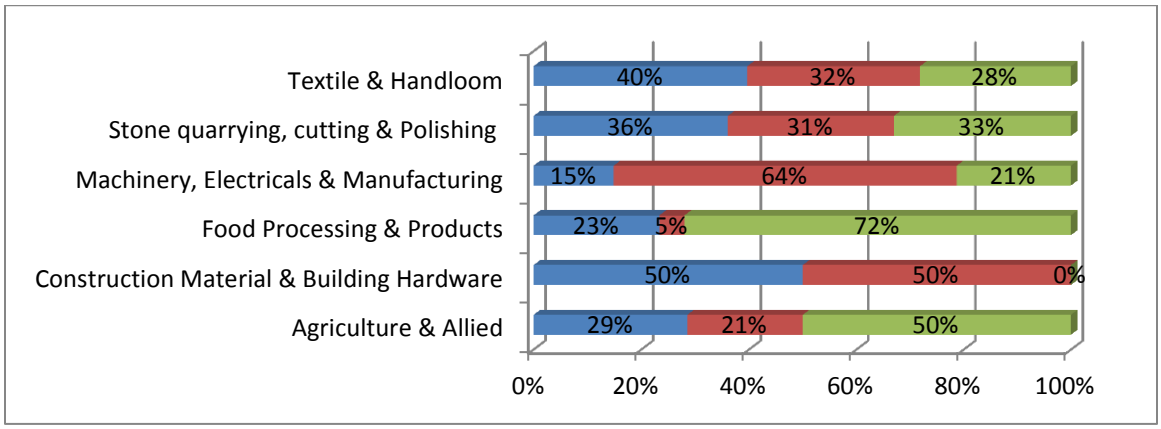


Figure 297 Sector wise current workforce distribution pattern across industries

Across the six sectors represented in the sample, the proportion of minimally skilled workers is the highest, followed by skilled and then semi-skilled workers. Across all six sectors represented in the sample, large worker strength was observed in the textiles & handlooms. The construction material & building hardware sector could not provide their minimally skilled workers strength.

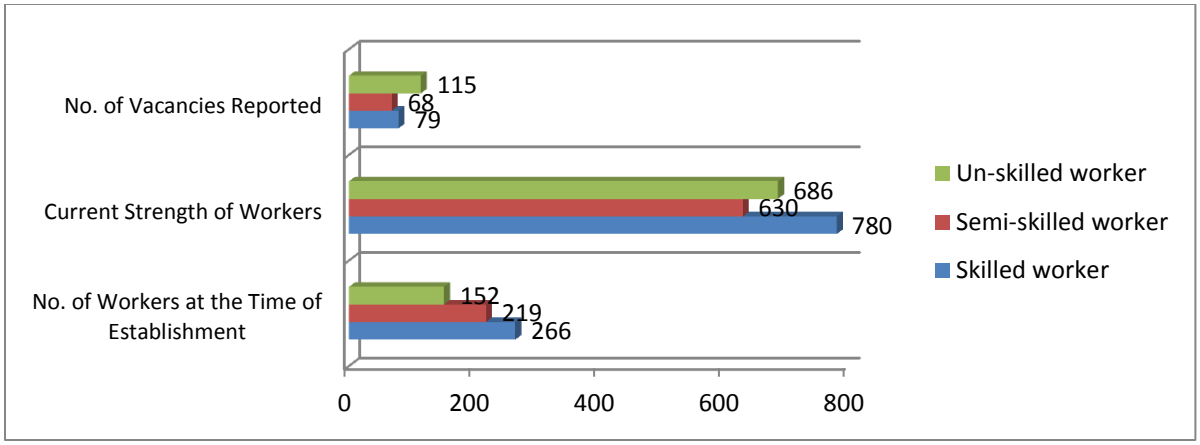


Figure 298 Distribution of workers in current, past and future as per industrial survey

The count of vacancy reported by various employers reflects a good potential for absorption of workers in skilled, semi-skilled and minimally skilled categories. Current strength for the semi-skilled and minimally skilled categories of workers is more or less in the equal proportion. It was observed that the current count for skilled worker is the highest followed by minimally skilled and semi-skilled workers.

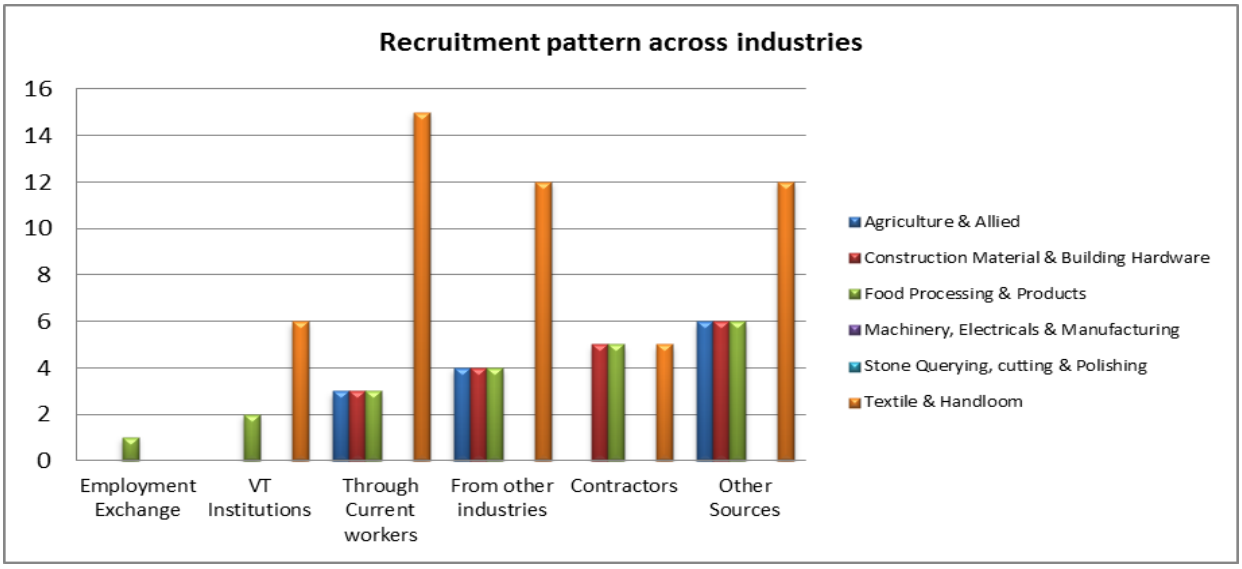


Figure 299 Sources of recruitment of current workers as per sample study

Recruitment of required workers through current workers and from other industries appears to be the most reliable methods of recruitment across all the industries. Other ways of recruitment like through employment exchange, through VT institutions, and through contactors was also reported by few industries.

Incremental manpower demand over the years till 2021-22

Over the years, the district remains largely agricultural sector based till 2022. Although, the agriculture sector remains largely dependent on minimally skilled labor, the industrial sector will be largest recruiter for skilled and semi-skilled labor followed by service sector. Construction sector emerges out of the large recruiter, followed by tourism, hospitality and BFSI sector.

Incremental	2012-2017			2017-2022		
Industry	**Skilled**	**Semi-Skilled**	**Minimally Skilled**	**Skilled**	**Semi-Skilled**	**Minimally Skilled**
Agriculture & Allied Activities	7454	37268	141618	4863	24315	92399
Mining & Quarrying	257	-1572	-20	-1001	-787	-1073
Construction	42230	51455	36983	42763	45817	68421
Tourism, Travel & Hospitality	45970	-9596	-11309	10188	4585	3056
Transportation, Logistics, Warehousing & Packaging	1481	755	252	811	413	138
IT & ITES Sector	6381	668	122	6488	679	124
Banking & Financial Services Insurance	17169	1543	26	12335	5551	3701

Real estate	1662	2622	-1483	47	50	75
Other Services	11949	-6480	-6238	-2665	-1206	-785
Electricity, gas & water supply	851	487	364	851	511	341
Food processing	249	-144	393	249	149	100
Chemicals & Pharmaceuticals*	31	16	16	31	19	13
Auto & Auto components*	-85	-50	-35	-85	-51	-34
Metals & non metallic products*	-2806	-1694	-1112	-2806	-1684	-1123
Textile & leather	1810	978	832	1810	1086	724
Wood & Paper products	-284	-166	-118	-284	-170	-114
Total	134315	76086	160289	73591	79276	165960

Table 168 Projected incremental workforce demand over the years in the district till 2022

4.17.9 Skill Gap Analysis

The skill gap analysis was performed by undertaking a primary research on the employers through the survey instrument; structured questionnaire designed to map the current and the future skill requirements of the industries identified in Prakasam district on the basis of manpower absorption and production in high growth industries in the district.

The analysis factored in industry linkages with vocational training institutes, employment exchange and with other sources for workforce absorption and retention and brings out the analysis on significant mismatch between industry skill requirements and the skill pool emerging. Overall, the supply of minimally skilled labor exceeds in all years in the district. The supply for skilled and semi-skilled manpower remains low as per the industry demand.

Incremental Workforce Demand & Supply Gap						
	2012-2017			2017-2022		
Sectors	**Skilled**	**Semi-Skilled**	**Unskilled**	**Skilled**	**Semi-Skilled**	**Unskilled**
Demand	134315	76086	160289	73591	79276	165960
Supply	11473	9372	168066	5503	15695	160463
Gap	122843	66715	-7777	68087	63580	5497

Table 169 Skill Gap across workforce skilled, semi-skilled and minimally skilled

As per the in-depth interviews conducted with senior functionaries of industry associations, the need to focus more on the quality of the current vocational training was well pronounced. Some of the important findings were as follows:-

1. Currently, a need was felt to update the curriculum as per the industrial requirements. On-the-job training must also be promoted. It was felt that more coordination and regulation is required among the various training institutions in the district.

2. Due the large upcoming projects in power and electrical, the demand of skilled manpower was expected to be high. Huge requirement is also expected in professions such as plumbing, office assistants, IT enabled services, office managers, facility management etc
3. Demand for skilled manpower in small and medium industries is high and expected to grow more. State also needs to promote self-employment and entrepreneurship through beneficial schemes and introducing training courses.

4.17.10 Youth Aspirations

The youth survey study was primarily undertaken through the survey instrument; structured questionnaires designed to capture the youth aspiration and perception under various categories as employed, self-employed, and unemployed and trainees against the sample size. The objectives of the youth survey were mainly to understand the perceptions of youth, their aspirations mapped against their attitudes to take up sustainable livelihoods work. The in-depth interactions were held with respondents across the various categories of youth to provide deep insight and understanding on their aspirations and perceptions; of self and people associated/related with them.

The youth were covered from the categories of employed, self-employed, unemployed and trainees (as shown in the table above). 81.7% of the youth covered were college educated and only 18.3% had completed high school education. All the respondents were covered from registered VTIs for relevance in skilling initiatives of the state and private VTIs. Equal proportions of (50 %) respondent youth were undergoing training at Government VTIs and private VTIs respectively.

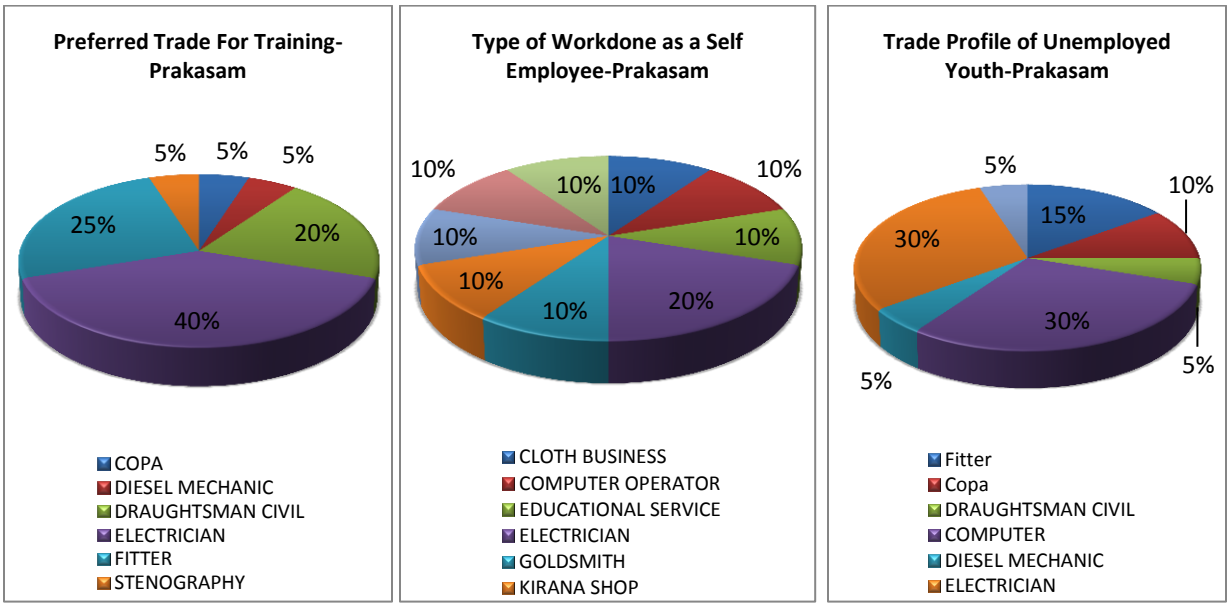


Figure 300 Profile of respondents (trainee, self-employed & unemployed youth) by trade in sample of Prakasam

Electrician course (40%) appears to be the most popular trades as per the perceived demand in the market followed by Fitter i.e. 25%. Although, the industry absorption of these courses is less, and most of the youth opt for self-employment after these courses. It was also noticed the supply of manpower is more than the demand in Electrician and fitter trade, and after

completing courses its gets difficult to find suitable employment. It was felt that in order to attract higher industry absorption in these courses the curriculum should be revised as per the industry demand.

Parameters considered by District's youth while opting for vocational training

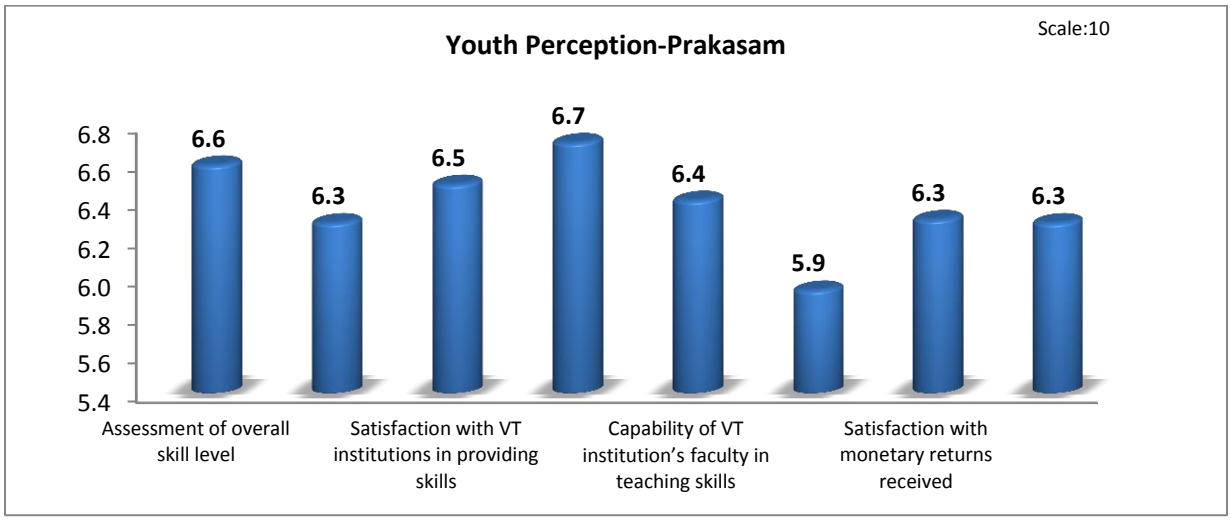


Figure 301 Prakasam Youth's perception, need and aspirations –Sample Group

Youth of Prakasam have given above average rating to the existing VTI facilities in the district. Access to VT institutions in own district (6.7) emerged as the leading factors identified by the respondents. Availability of latest technologies and equipment for VT gets the lowest rating of 5.9 on a scale of 10. It is imperative for the existing VTIs to enhance their technology as per the current industry requirement.

4.17.11 Recommendations: Skill development ecosystem

By 2022, the demand for semi-skilled manpower will be high in the district. Mainly, the youth need to be skilled in food processing, paper printing, tobacco and leather industries, slate and granite manufacturing. The district also attracts large number of tourist because of religious places. In the years to come, the district will require skilled manpower in service sector such as retail and hospitality. Following are the key demand industries in the district:

Sectors	Growth Opportunities
Agriculture & allied industries	• Agriculture contributed ~57 percent to the primary sector DDP in 2009-10. • It witnessed at growth rate ~8 percent from 2004-05 till 2009-10. • In terms of anticipated employment, agriculture and allied industries will be largest recruiter of manpower till 2021-22.
Construction	• The construction sector is the highest contributor to the economy (57 percent) in secondary sector in 2009-10. • The district will require approx. 2.87 lakh skilled and semi-skilled manpower till 2021-22. • More industry specific courses are required in the district such as bar bending, masonry, etc.

Table 170 Key growth sectors in Prakasham

State:

Action Plan:

a) Prakasam district has high female workforce participation but extremely low female literacy rate. State needs to focus more on female education through encouraging schemes.
b) The district also suffers from high dropout rates. It is pertinent for the state to focus on better educational facilities.
c) State should also introduce vocational courses at the school level.

Training Partners:

Action Plan:

a) Sectors such as manufacturing, hospitality and construction will require skilled manpower in near future. Currently, no such courses are present to cater to this demand. Module based courses should be introduced by training providers to cater to this demand.
b) Target segment for training providers will be population with minimal educational qualifications. Training providers should introduce level based courses, encouraging trainees to take up-skilling courses after basic courses.
c) Training providers should also introduce entrepreneurship development programmes for agri based services.

Industry:

Action Plan:

a) Manufacturing industry should tie up with government to upgrade few existing ITIs. They should also take the onus of delivering trainings in these institutes.
b) Industry should participate in the campus placements for recruitments. They should also provide the training providers feedback for better delivery in the future.

NSDC:

Action Plan:

a) NSDC should focus on increasing linkages between training providers, state and industry.
b) Focus should be on improving the existing quality of the training infrastructure. Regular assessment of training providers should be undertaken.

4.18 Rangareddy

The subsequent sections highlight the economic base of the district and the occupational structure. They identify the high impact industries and skills needed to match the expected growth.

The latter section represents the projected workforce demand and supply in the coming years and the optimization plan for the district.

4.18 Rangareddy

4.18.1 Rangareddy District Demographic Profile

Table 171 Rangareddy district at a glance

Rangareddy District at a Glance				
Population	**Rangareddy District**		**Andhra Pradesh**	**Remarks**
	Provisional Census 2011	**Census 2001**	**Provisional Census 2011**	
Total Population	5296396	3575064	84665533	
Total Population - Male	2708694	1839277	42509881	
Total Population - Female	2587702	1735837	42155652	
Population Growth	48.15%	40.09%	11.10	
Area Sq. Km	7493		275100	
Density of Population (Density/Area sq.Km)	707	477	308	
Proportion of Andhra Pradesh population	6.26%	4.69%		
Decadal growth of population (2001 - 2011)	48.15%	40.09%	11.10%	
Literacy rate	78.05	66.16	67.66	
Male Literacy	84.00	75.26	75.56	
Female Literacy	71.82	56.49	59.74	
Sex ratio (per 1000)	955	944	992	
Worker population participation rate		40.2	45.7	Census 2001
Cultivators to total workers		19.6	22.52	Census 2001
Agriculture laborer in workforce		20.8	39.64	Census 2001
Household workers		2.90	4.71	Census 2001
Other industry and services		56.7	33.13	Census 2001

Rangareddy district surrounds the state capital of Hyderabad and includes the city's suburbs. Much of Hyderabad's new growth takes place in Rangareddy. Not surprisingly, Rangareddy is industrially well developed and enjoys the advantages of good infrastructure, communication network, transport, market, and human resources. The district is one of the largest in the state and is performing better than many others. Its human development index of 0.610 is higher than the state average of 0.537. Rangareddy is also the second most urbanized district in the state, with the proportion of the urban population going up to 70.32 percent in 2011 from to 54.20 in 2001. The district also reports a higher per capita income of INR 74,970 compared to the state average of INR 37,061 at constant price 2004-05.

As per provisional Census 2011 data, Rangareddy district accounts for population of 5.296 million with a sex ratio of 955 females per 1000s male compared to the 2001 census figure of 944 females. The total area of the district is 7,493 sq.km and it accounts for 6.26 percent of the total area in Andhra Pradesh, It is also very densely populated, with 707 people per sq.km as per Census 2011, compared to 477 people in Census 2001. Rangareddy district's literacy rate of 78.05 percent is the second highest in the state. In 2001 that figure was 66.16 percent. Gender wise, around 84 percent of males and 71.82 percent of females are literate.

It is pertinent to note that Rangareddy's total workforce participation rate is 40.2 percent in and is the third lowest in the state. The total male working population is 53.4 percent against the female working population of 25.6 percent. Also, it is pertinent to note that the proportion of the female working population in Rangareddy district is much lower than the state figure.

Out of the total working population, main workers comprise 35.4 percent of the total population followed by the marginal workers at 4.8 percent and non-workers at 59.8 percent. The majority of the district's main workers, 59.16 percent, are engaged in the 'other industries'. This is followed by cultivators at 21.56 percent, agricultural laborers at 16.75 percent and household industries another 2.54 percent.
Rangareddy district has the second-highest number of workers in the organized sector. The district also got the second lowest ranking in the state when it came to the number of workers engaged in agriculture. Looking at the present trend it may be noted that agricultural activity is on a declining trend and there is a rising trend observed in the secondary and tertiary sectors.

4.18.2 Economic Profile

The district's Gross district domestic product (GDDP) has grown at the growth rate (CAGR) of 12.74 percent from 2004-05 till 2009-10. In 2009-10, tertiary sector contributed approx. 53 percent to the GDDP primarily due to the contribution of trade, hotels and restaurants sector followed by secondary sector which contributed approx. 38 percent to the district's GDDP.

The chart below shows GDDP of primary, secondary and tertiary sector from 2004-05 till 2009-10.

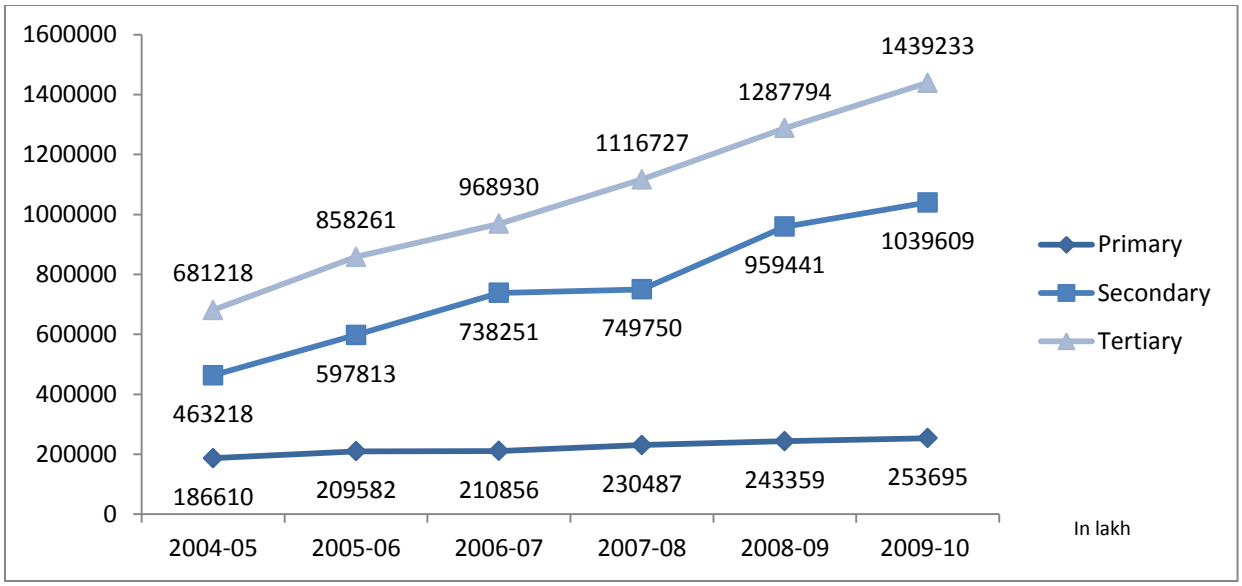


Figure 302 Sectoral contribution to GDDP, Ranga Reddy

Primary Sector

The primary sector (agriculture, forestry &logging, livestock, fishing and mining & quarrying) contributed approx. 9.8 percent to the GDDP in 2009-10. Livestock sector was highest contributor to the primary sector, contributing 49 percent to the primary sector in 2009-10, followed by agriculture (34 percent), mining and quarrying (13 percent), forestry and logging (3 percent) and fishing (1 percent).

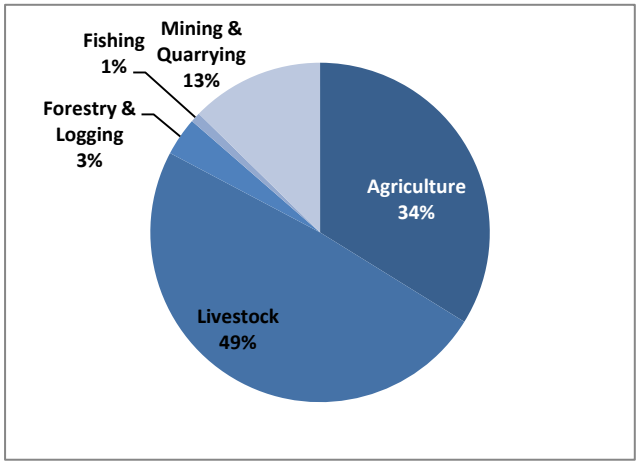


Figure 303 Primary sector contribution to GDDP, 2009-10

The CAGR for primary sector is approx. 5.25 percent from 2004-2005 till 2009-10 with mining and quarrying registering highest growth (CAGR 14. 3 percent) from 2004-05 till 2009-10.

Secondary Sector

The contribution of the secondary sector to district GDP in 2009-10 was approximately 38 percent. The sector has shown a CAGR of 14.4 percent from 2004-05 till 2009-10, primarily due the contribution of manufacturing.

The growth of manufacturing sector has been impressive with registered manufacturing units

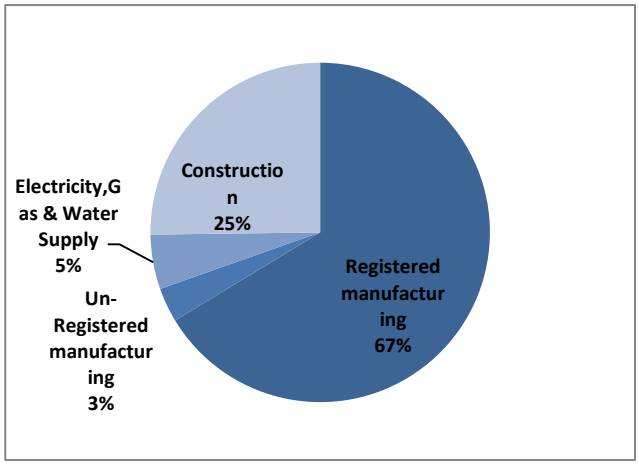


Figure 304 Secondary sector contribution to GDDP, 2009-10

growing (CAGR) by 17.5 percent from 2004-05 till 2009-10.

Tertiary Sector

The contribution of the tertiary sector has been significant to the district's economy over the years. In the year 2009-10, the contribution of the tertiary sector was approx. 52 percent to the district's GDDP. The sector has shown the highest CAGR among the three sectors of 13.28 percent from 2004-05 till 2009-10, primarily due the trade, hotels and restaurants sector.

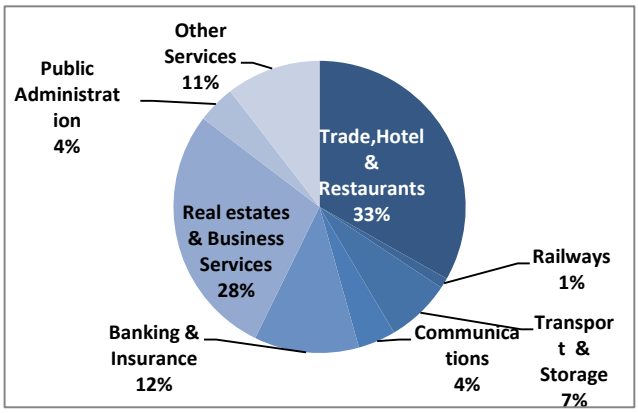


Figure 305 Tertiary Sector contribution to GDDP, 2009-10

Three sectors which have shown a high CAGR from 2004-05 till 2009-10 are transport by other means & storage (17.7 percent), communications (13.9 percent) and BFSI (27.2 percent). Trade hotels and restaurants have contributed highest to the growth of the sector; it has shown a CAGR of approx. 15 percent from 2004-05 till 2009-10. Real estate and other services grew by 10.8 percent from 2005-05 till 2009-10.

Industry Mapping

Rangareddy district is one of the important growth centers of the state due to its proximity to the state capital. There is great potential for growth of industries based on automobile, construction, pharma, chemicals, engineering, textiles and steel. Industry in this district contributes a considerable 7.86 percent of GDP at constant prices from 2004-05 to 2009-10.

Rangareddy district's proximity to Hyderabad gives it easy access to both markets and manpower. The district is one of the important growth centers due to its proximity to state capital. The district is in more advantageous position for setting up of industries as the location is nearer to the market and also the easy availability of required technical man-power. The district has a strong industrial base with public sector undertakings like BHEL, ECIL, HAL, HMT Bearings, NFC DRDO , DRDL, Mishra Datu Nigam Ltd., BDL, NRSA, etc.,

Agriculture is still the predominant occupation in Rangareddy. The main crops are cotton, maize, sugarcane, groundnut, and red gram. In addition, some farmers in semi-urban areas grow flowers or cultivate vegetables.

Large Scale Industries

There are 31 industrial estates or industrial development areas in the district, and all of them receive water and power supplies. The district is now a major hub for the manufacture of bulk drugs and other pharmaceuticals. Some of the leading drug companies in Rangareddy include Dr.Reddy's Laboratories, Aurobindo Pharma, Matrix, Hetero Drugs, Gland Pharma, Shantha Biotechnics , and Bharat Biotech.

Small Scale Industries

There are 25,642 small scale industries in Rangareddy, with an investment of INR 19,400 million and providing employment to 1,70,120 persons. Typical industries range from the makers of ceiling fans to welding electrodes to pharmaceuticals, printing, and packaged drinking water.

4.18.3 Education Infrastructure and Utilization

Rangareddy recorded the second highest position in the state with high literacy rate. The district possesses excellent education system with well-established infrastructure and is ranked as second highest in the state with maximum number of schools. The district aims toward expanding productive employment and livelihoods thereby, enhancing human development indicators.

The literacy rate of Rangareddy district is 78.05 percent is ranked at second highest position in comparison to other districts in the state. The literacy rate in 2011 is 78.05 compared to 66.16 has shown substantial improvement in the education status. Gender wise, around 84 percent of males and only 71.82 percent of females are literates.

As per Census 2001, the total number of graduates and above in Rangareddy district is 2,60,503. It is interesting to note that out of the total population of graduates and above, 67 percent are male. However, the percentage of the district graduates to Andhra Pradesh total graduates is a substantial 9.21%.

Schools	Total Number	No. of Enrollments
Primary Schools	2644	432770
Upper Primary Schools	771	162271
Secondary Schools	1345	404022
Higher Secondary Schools	20	17641

Table 172 Schools with enrolment details Source: Statistical Abstract, Andhra Pradesh - 2011

Retaining students in school still remains challenge in Rangareddy district. The gross enrolment ratio in classes I-V was 160.32 percent, followed by 133.86 percent for classes VI – VIII and 104.19 for classes VIII – X. In contrast, the state's ratio are 100.46 percent, 84.76 percent, and 69.51 percent, respectively. The dropout rates establish an increasing trend over classes I-X of 41.53 percent.

Educational Institutions	Total Number
ITIs	3
Polytechnics	16
Engineering Colleges	154
Medical/nurses Colleges	6
Pharmacy Colleges	46

Table 173 Education Statistics; Source: Statistical Abstract, Andhra Pradesh - 2011

Rangareddy is filled with colleges. There are a total 154 engineering colleges, all of them private. There are no government colleges in the district. The engineering colleges present offer a variety of courses and have a combined intake capacity of approximately 42,193 students per year. Major courses offered include, computer science and engineering courses in electronics, telecom, computers, electrical engineering, , mechanical engineering, and instrumentation.

There are 16 polytechnic colleges in the district, with total intake capacity of 3,700 students per annum. Rangareddy also has 46 pharmacy colleges, more than any other district.

4.18.4 VTI's demand across various trades in Rangareddy district

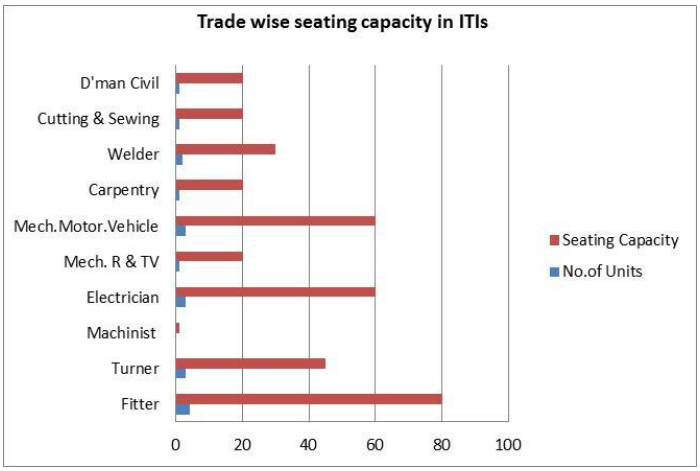


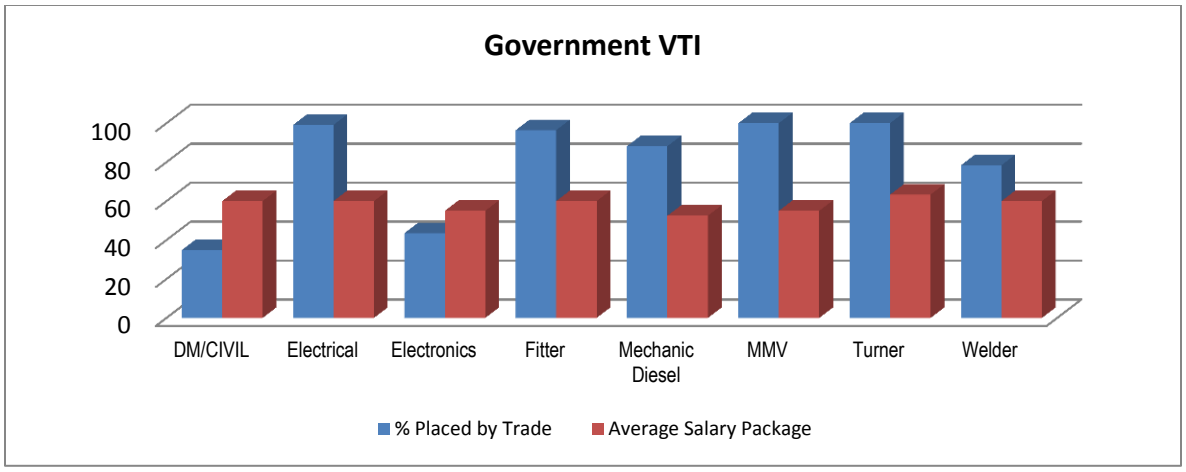
Figure 306 Trade wise seating capacity in ITIs

There are 14 vocational training institutes in the district. Their overall intake is around 1,960 students per annum. Out of these vocational training institutes only two are government VTIs and the remaining are the private ITCs. These institutes impart training in various trades like those for electricians, fitters, diesel mechanics (Diesel), plumbers, instrument mechanics, welders, carpenters, dress makers, masons, radio and television mechanics, turners, and stenographer. New trades are introduced based on emerging industry demand. At present, some of the most popular trades are those for fitters, electricians, and motor mechanics. All the trades are permanently affiliated to National Council of Vocational Training of Director General of Employment and Training.

Government VTI Trades		Private VTI Trades
DM/CIVIL	Turner	Electrical
Electrical	Welder	Electronics
Electronics	MMV	Fitter
Fitter		Mechanic AC
Mechanic Diesel		Mechanic Diesel

Table 174 Courses offered in government and private VTIs (sample)

The government VTIs sampled for the study offer eight different trades for training while private VTIs offer five trades. The electrical trade is the most popular in both state-run and private VTIs. It is followed in popularity by the courses for fitters and diesel mechanics. In the Government VTIs, there are gaps between available seats and those actually filled. There are no such gaps in private VTIs.



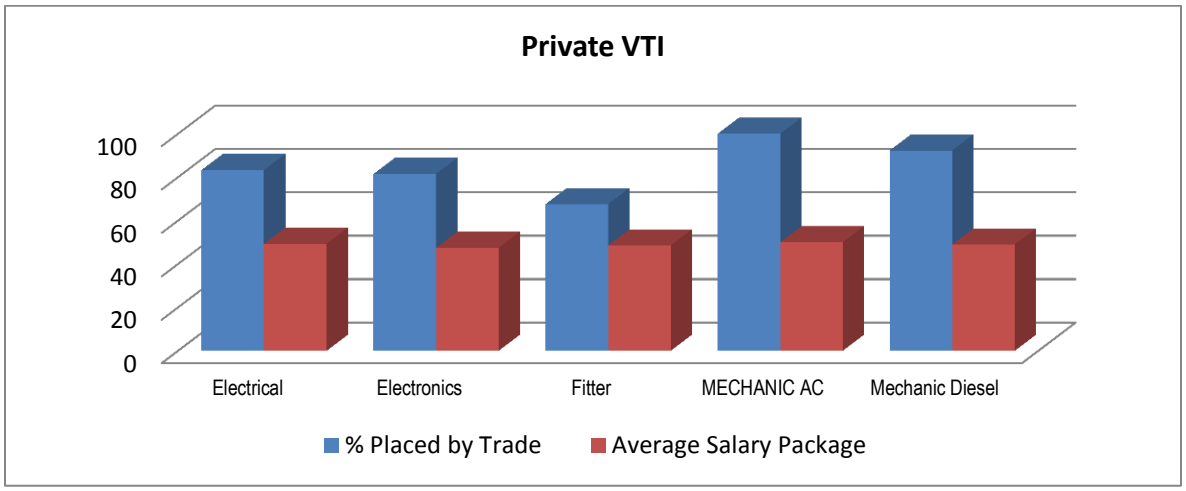
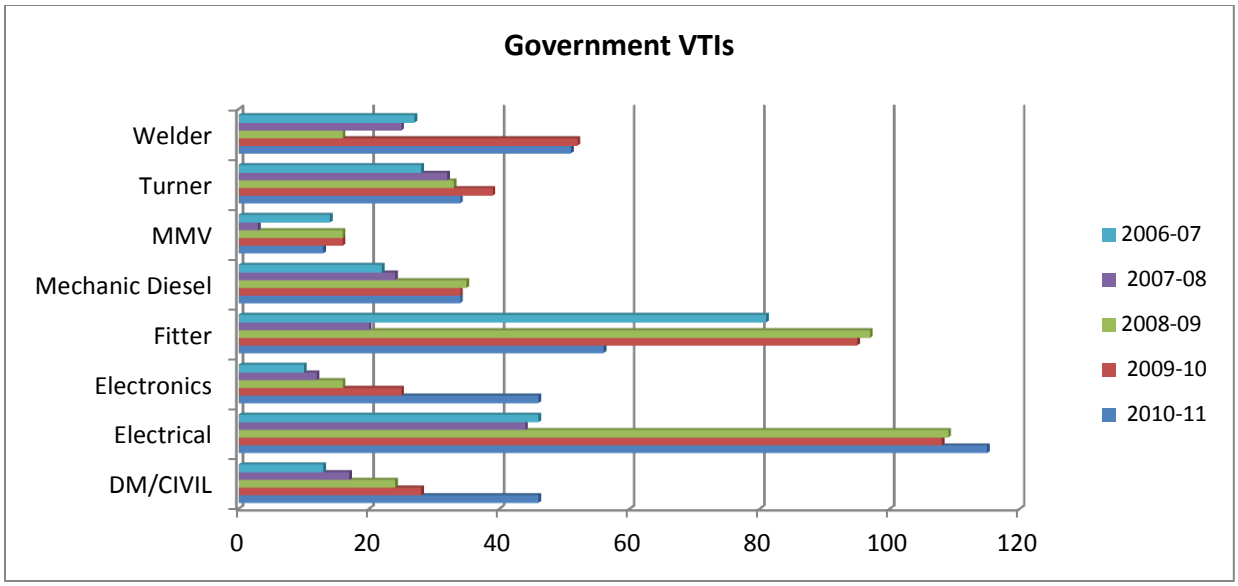


Figure 307 Courses offered placements in VTIs and average salary offered

An overview of placement records by trade in government VTIs indicates stronger prospects in most trades. In government VTIs, all the students learning to be motor mechanics or turners were placed. In private VTIs, 100 percent of students from the AC mechanic trade got placed. Average salaries indicate strong prospects across most trades in government VTIs. Trainees from the turner trade were the highest paid, with average salaries of INR 6,333 per month. While many trainees from Government VTIs got placed by directly approaching industry, a good number of students also got placed through campus interviews. The district's employment exchanges do not appear to be playing a significant role. Placements of trainees from the private VTIs are also largely through direct approaches to industry or campus interviews.



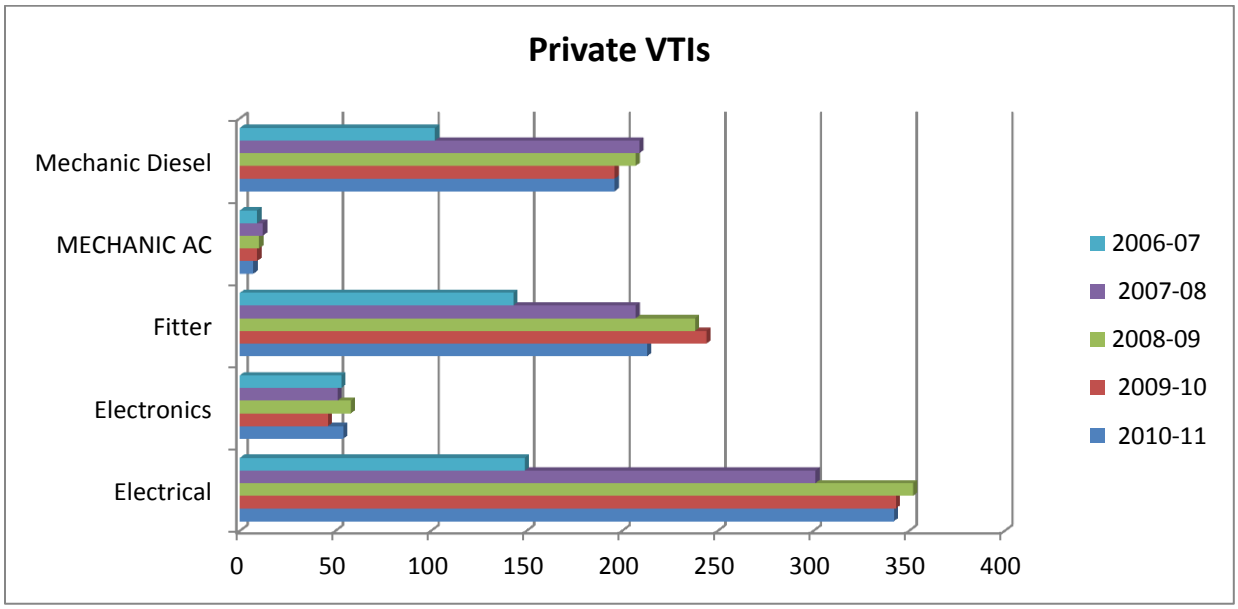


Figure 308 No.of trainees in different courses in Government & Private VTI

While some courses at VTIs tend to be more popular than others, demand for most courses fluctuates over time. A few courses, on the other hand, show a steady increase in demand. In government VTIs, the electronics trade has increased intake on a regular basis and in private VTIs, intake into the course for fitters has gone up over time.

Government VTIs	Positions	Approved	Actual
	Managerial	11	11
	Academic	59	40
	Support	3	0
Private VTIs	**Positions**	**Approved**	**Actual**
	Managerial	15	15
	Academic	56	53
	Support	16	16

Table 175 Sector-wise industries sampled in the district

While some courses may be very popular, the VTIs need to be able to hire enough people to meet demand. However, government VTIs appears to be understaffed in terms of their academic and support staff. Private VTIs have a small shortfall in academic staff, but none in support or managerial positions. Overall, while the shortfalls can create challenges, they are not big enough to seriously hamper the functioning of the VTIs.

4.18.5 Placement & Absorption Trend

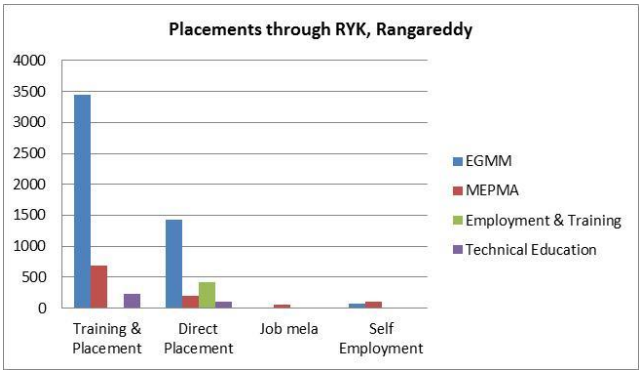


Figure 309 Placements through RYK, Medak; Source: RYK state level placements monitoring report, June 2012

Rangareddy district has two employment exchanges. The number of candidates in the live register during 2009-10 was 55,737. However, out all the candidates, only around 53 were actually placed.

Candidates can also approach the government's Rajiv Yuva Kiranalu, which helps educated youth find jobs. However, as the chart indicates, most placements occur through private institutes or direct placements. The Job Mela organized at the district level as a part of the ongoing Rajiv Yuva Kiranalu, has recorded very few placements.

4.18.6 Sector wise mapping of industries in Rangareddy

Industry wise Sector Mapping					
NSDC (High growth sectors)	**Units**	**Employment**	**High**	**Medium**	**Low**
Agriculture & Allied	12	250			
Automobile & Auto components	522	12731			
Food Processing (Food beverages and Tabacco products)	559	18206			
Electronics Hardware	1472	59833			
Textiles and Garments	87	11472			
IT	1	19			
Chemicals and Pharmaceuticals	457	21216			
Tourism, Hopitality and Travel	627	204			
Transportation/Logistics/Warehousing and Packaging	19	5531			
Healthcare	42	201			

Education/ Skill Development	33	2896			
Banking/ Insurance and Finance	441	593			
Manufacture of Wooden furniture	420	4978			
Paper and Publication	252	6713			
Rubber and Plastics					
Petroleum	14	703			
Minerals based industries	587	13972			
Service based industries (Repairs & maintenance: R&D)	63	5182			

High	Units>200, emp>1000 - all applicable
Medium	Units>100, emp>500 - all applicable
Low	Units>10,emp>30 - all applicable

Table 176 Sector-wise mapping of industries; Source DIC Report

Sector	No. of Industries Sampled
Auto & Auto Components	1
Food Processing & Products	1
Furniture & Furnishing	1
Machinery, Electricals & Manufacturing	16
Poly Products	7
Rubber products	1
Service Sector	1
Grand Total	28

In order to understand the trend in the existing market and industrial set up, a stratified sample of 28 industries was selected. The sample of employers consisted of functionaries from diverse industries located in the district.

Table 177 No.of sampled industries-sector wise

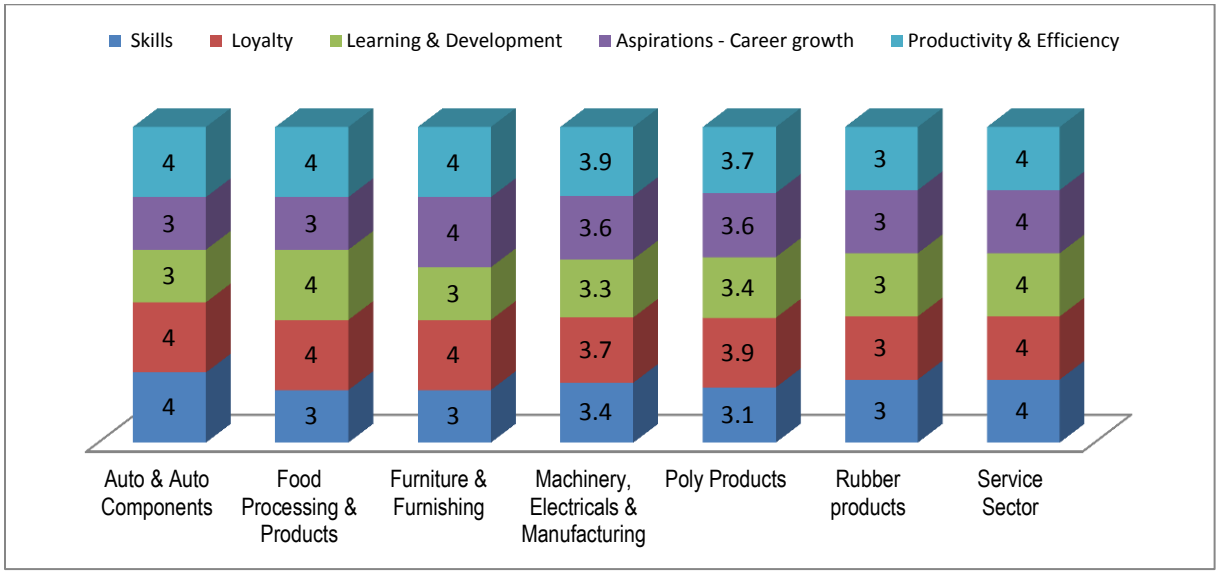


Figure 310 Employers demands in terms of expectations from workers

When the employers were asked to rate their expectation from their workers on a scale of five, employers from the services sector showed a higher desire for worker characteristics, providing ratings of about 4.0 throughout. Most other employers rated their expectations somewhere between 3.0 and 4.0, which indicate greater employer satisfaction.

4.18.7 Composition of workforce

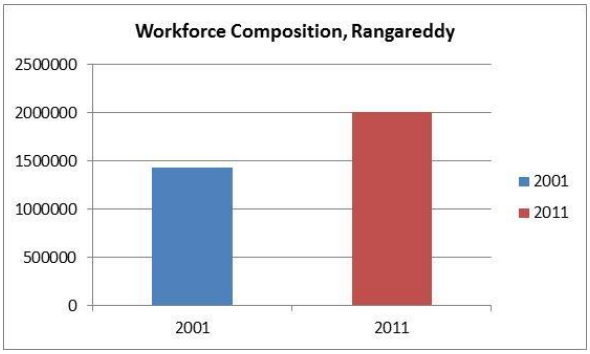


Figure 311 Projected Workforce; Source: Deputy Commissioner of Labour, 2012

Rangareddy district has the third lowest workforce participation rate in the state. Also, the proportion of people working in agriculture has been falling. Looking at the present resources and skill sets in the district, services -based industries are likely to play a key role in creating adequate employment opportunities for the youth in the coming years.

The working population in Rangareddy district is expected to rise by 40 percent against the 2001 data. Its total workforce participation rate of 40.2 percent is the third lowest in the state. The total male working population is 53.4 percent against the female working population of 25.6 percent. It is pertinent to note that the proportion of the female working population in Rangareddy district, which is 9.3 percent, is much lower than the state figure.

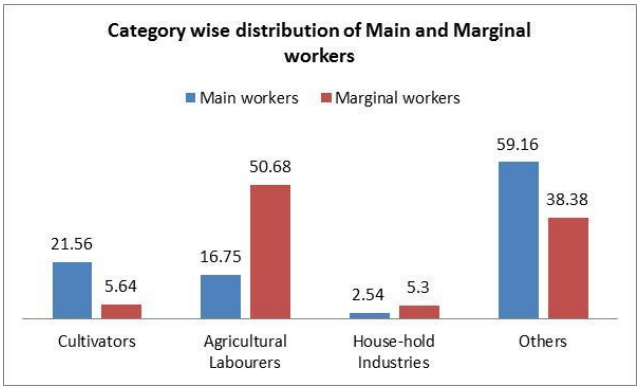


Figure 313 Category wise distribution of main and marginal workers Source: Census 2001

Out of the total working population, main workers comprise 35.4 percent of the total population followed by the marginal workers at 4.8 percent and non-workers at 59.8 percent. Out of the population of main workers, 59.16 percent are engaged in 'other industries'. Another 21.56 percent are cultivators, while 16,75 percent are agricultural laborers and 2.54 percent work in household industries. Rangareddy district is ranked second in Andhra Pradesh when it comes to the number of workers in the organized sector. In addition, it holds the second lowest position when considering workers in the agricultural sector, and is ranked the fourth lowest among workers engaged in household industries. Hence, looking at the present trend it may be noted that agricultural activity is on declining trend and there is a rising trend observed in the secondary and tertiary sectors.

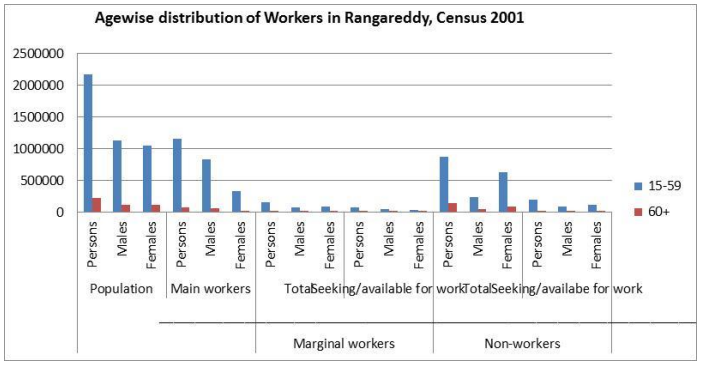


Figure 312 Age wise distribution of workers

Despite these trends, 50.68 percent of marginal works in Rangareddy district are agricultural laborers. Among those classified as main workers, most fall in to the 15 - 59 years age group. Interestingly, among the non-workers and marginal workers, females in the age group of 15 - 59 outnumber the males.

4.18.8 Projected Workforce Demand

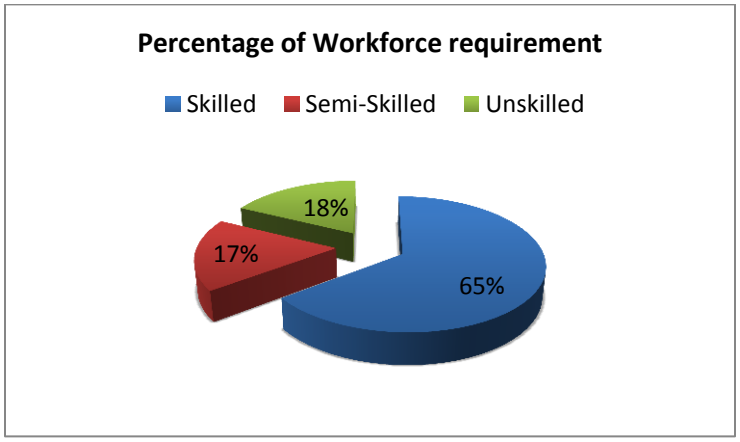


Figure 314 Percentage of future workforce requirement

A total of 28 industries were sampled for the survey to represent seven major sectors in Rangareddy district. The table shows the availability of skilled, semi-skilled and minimally skilled workers from the time their industries were established to their present and required strengths. Twenty-five of the sampled industries across four major sectors: machinery, electrical & manufacturing, poly products, food processing, and services, could provide their skilled workers strength. The other three sampled sectors also reported retention and an increase of their skilled worker strengths between the time they were established and the [resent time. Across the 28 industries surveyed, only one sector, machinery, electrical & manufacturing, has the potential to absorb more skilled workforce. All the industries have expanded their numbers of semi-skilled staff. Potential to absorb more semi-skilled staff was reported by the machinery, electrical & manufacturing sector only. In minimally skilled workers' category, all sectors report retention and an increase of their worker strengths.

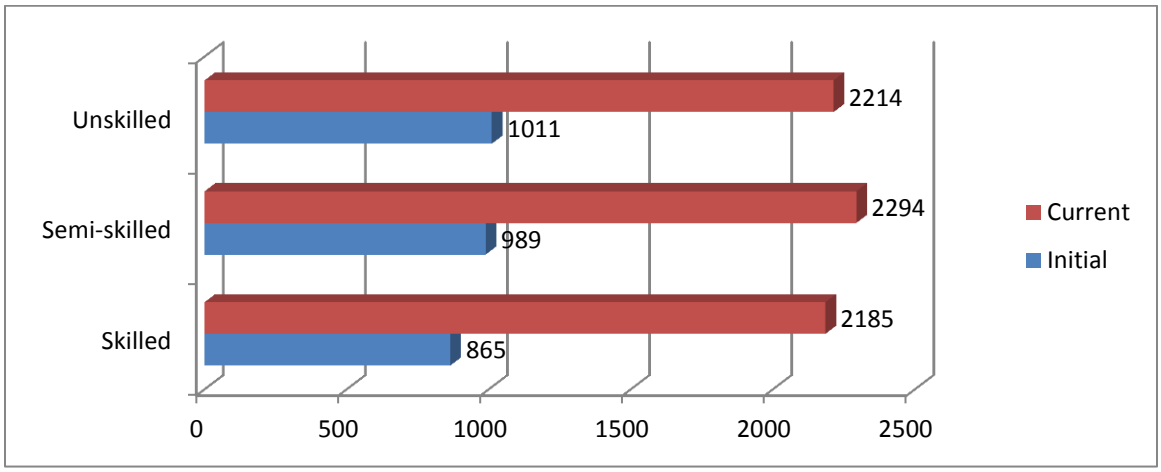


Figure 315 Initial & Current requirement of workforce as per sample study

The number of vacancies reported by the sampled employers for the skilled category was the highest, followed by equal demand for the semi-skilled and minimally skilled. This reflects low potential for absorption of workers in the semi-skilled and minimally skilled categories.

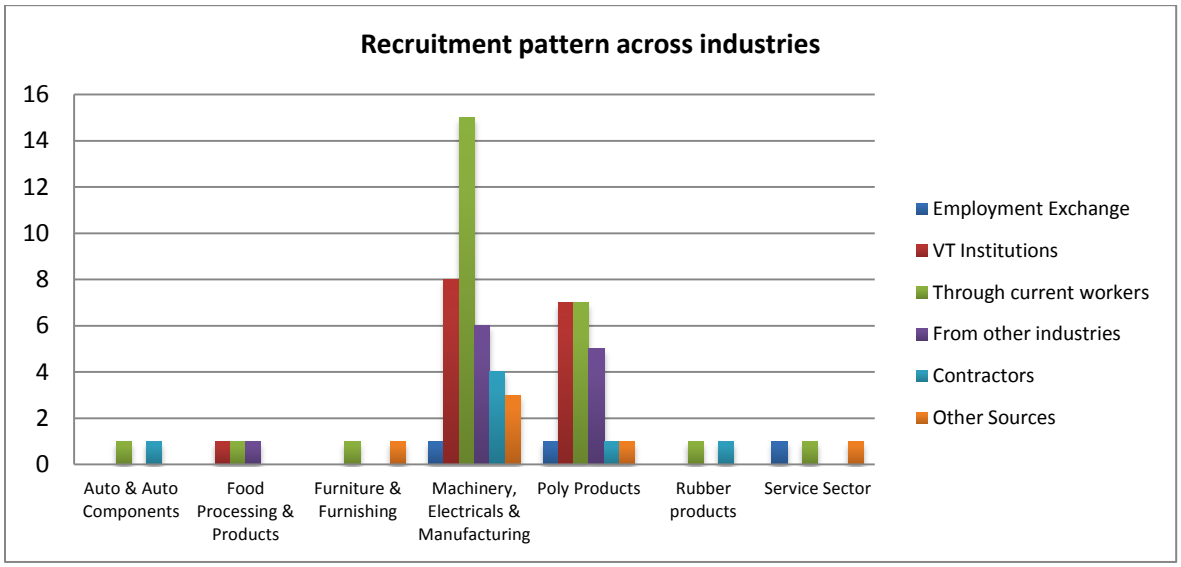


Figure 316 Recruitment pattern across industries, primary survey

Most recruitment takes place through references provided by current employees. Other methods of recruitment include going through contractors or an employment exchange.

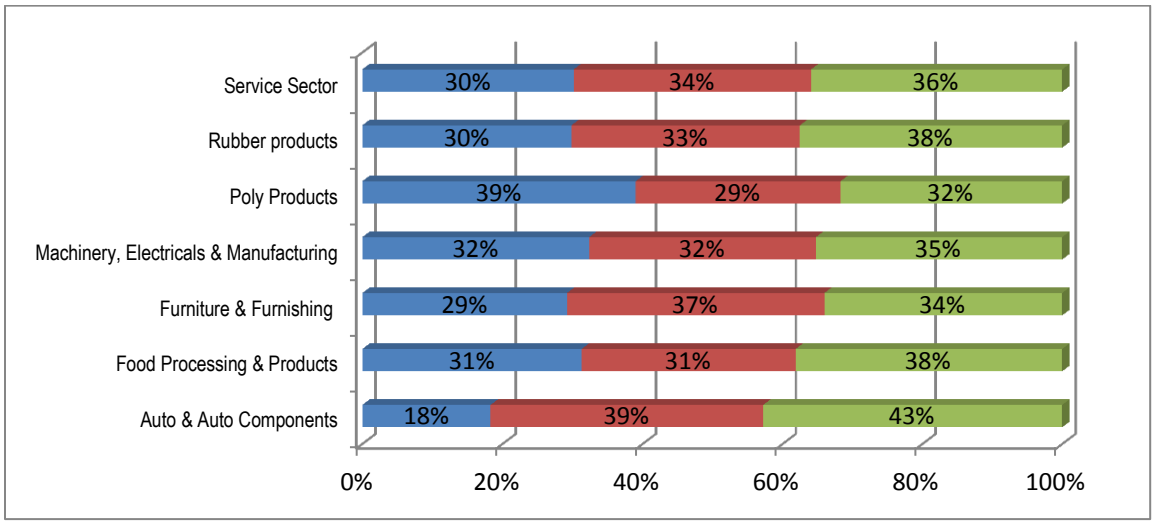


Figure 317 Sector wise current workforce distribution pattern across industries

At present, the available strengths of workers in all three categories is roughly equal. Current strength for the skilled, semi-skilled and minimally skilled categories of workers was almost in the equal proportion. The count for semiskilled and minimally skilled worker is more or less same. It was observed, through the data of worker current strength of workers is almost double from the time of industry establishment. The demands of skilled, semiskilled & minimally skilled workers increased over the time period.

Across the seven sectors represented in the sample, the proportion of semi-skilled workers is the highest, followed by skilled and then minimally skilled workers. Across all the seven sectors

represented in the sample, relatively large strengths of semi-skilled and minimally skilled workers was observed in the machinery, electrical & manufacturing sector followed by poly products sector. The auto & auto components sector shows low workers strength across all three categories.

Incremental manpower demand over the years till 2021-22

As indicated in the table below, sectors with high incremental manpower demand are tourism, travel & hospitality sector, construction, auto components and BFSI sector. Again, agriculture is on a decline in this district and thus manpower is expected to migrate to other industries for beneficial employment.

	2012-2017			2017-2022		
Industry	**Skilled**	**Semi-Skilled**	**Minimally Skilled**	**Skilled**	**Semi-Skilled**	**Minimally Skilled**
Agriculture & Allied Activities	-17448	-87238	-331503	-25786	-128930	-489933
Mining & Quarrying	1691	278	1637	1221	959	1308
Construction	32250	43639	6841	18840	20186	30145
Tourism, Travel & Hospitality	166666	-11893	-22022	73284	32978	21985
Transportation, Logistics, Warehousing & Packaging	11390	5802	1934	11170	5690	1897
IT & ITES Sector	5582	584	107	4956	519	95
Banking & Financial Services Insurance	42219	7485	3122	36824	16571	11047
Real estate	7456	10973	-2777	2269	2431	3630
Other Services	-5415	-15172	-11753	-24256	-11092	-6889
Electricity, gas & water supply	1583	905	678	1583	950	633
Food processing	4381	1966	2415	4381	2629	1753
Chemicals & Pharmaceuticals*	26766	14707	12060	26766	16060	10707
Coke, refined petroleum and nuclear fuel*	-43	-26	-17	-43	-26	-17
Rubber and plastic products*	2846	1450	1397	2846	1708	1139
Auto & Auto components*	34123	18182	15940	34123	20474	13649
Metals & non metallic products*	12166	6350	5816	12166	7300	4867

Textile & leather	1764	538	1226	1764	1058	706
Wood & Paper products	-2440	-1518	-922	-2440	-1464	-976
Total	325538	-2989	-315820	179669	-12000	-394257

Table 178 Projected workforce (demand) requirement till 2022 across all the sectors- Rangareddy

4.18.9 Skill Gap Analysis

The skill gap analysis was performed by undertaking a survey. A structured questionnaire was designed to map current and the future skill requirements of the industries identified in Rangareddy district. The analysis factored in industry linkages with vocational training institutes, the employment exchange, and other sources for workforce absorption and retention.

Overall, the supply of minimally skilled and semi-skilled manpower exceeds demand in all the years examined. The supply of skilled manpower remains low as per the industry demand.

Workforce Demand & Supply Gap						
	2012-2017			2017-2022		
Sectors	**Skilled**	**Semi-Skilled**	**Unskilled**	**Skilled**	**Semi-Skilled**	**Unskilled**
Demand	325538	-2989	-315820	179669	-12000	-394257
Supply	28023	13551	126615	9982	23582	110875
Gap	297515	-16540	-442435	169686	-35582	-505131

Table 179 Representation of projected Skilled/ Semi-skilled & Minimally skilled workforce trend 2011-2022

In-depth interviews conducted with senior functionaries indicated the need to enhance the current vocational capacity in the district. Some of the important findings were as follows:

1. Current trainings provided by the government and private institutes meet the industry requirements. However, capacity needs to be increased. Focus should also be laid on practical training.
2. Demand for skilled manpower in small and medium industries is high and expected to grow more. State also needs to promote self-employment and entrepreneurship through beneficial schemes and introducing training courses.
3. Demand for skilled workforce would be increasing over next three to five years keeping in mind the increasing investment pattern of the state. Major employment would be perceived in automobile, mechanical engineering and electrical hardware sector.
4. High requirement is also expected professions such as plumbing, office assistants; IT enabled services, office managers, facility management etc.

4.18.10 Youth Aspirations

The youth survey study was primarily undertaken through a survey. Structured questionnaires were designed to capture the aspirations and perceptions of youth across the four categories of employed, self-employed, unemployed, and trainees.

Interviews were held with respondents and focus group discussions were held in colleges to better understand the concerns of the youth.

Out of those surveyed, 95.1 percent were college educated and the remaining 4.9 percent had completed high school education. All the respondents were undergoing training at government VTIs.

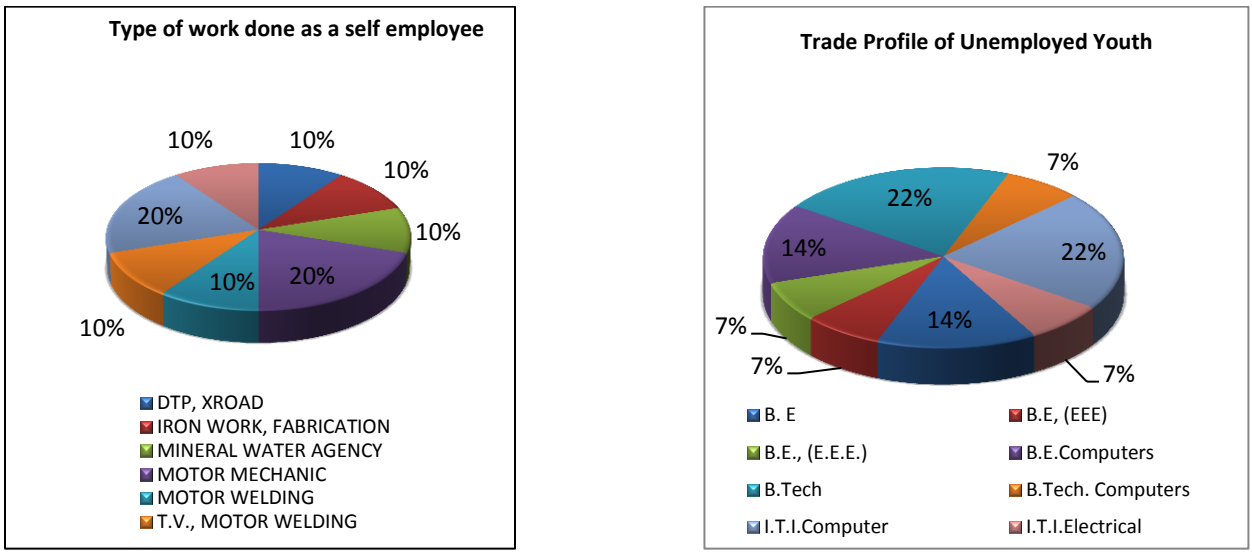


Figure 318 Profile of respondents (trainee, self-employed & unemployed youth) by trade in sample of Rangareddy

An overwhelming 48 percent of the respondents identified the electrical trade as their preferred option, followed by 28 percent who took the course for fitters. Out of those who were self-employed, the most popular trades were those for desktop publishing and mechanics. Out of those currently unemployed, 22 percent chose the computers trade and another 22 percent opted for bachelor of engineering courses.

Parameters considered by District's youth while opting for vocational training

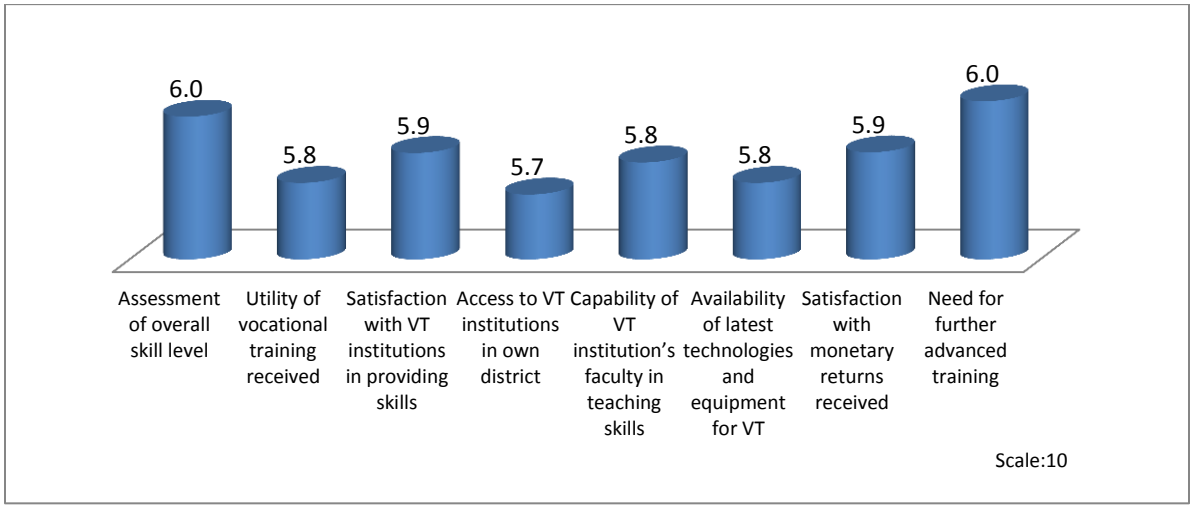


Figure 319 Rangareddy Youth's perception, need and aspirations –Sample Group

Rangareddy district's youth gave their VTIs average ratings. Rating on a scale of 10, they showed reasonable satisfaction with their overall skills but also indicated a desire for further

training. However, the respondents appeared less satisfied about access to vocational training institution.

4.18.11 Skill Development Eco System

Rangareddy district is at the peak of its industrial development. To maintain a consistent growth path, it is necessary to maintain a skilled workforce. The district has several large and medium scale industries in various sectors. With demand expected to grow, it is vital to increase the capacity of the VTIs in the district. NSDC should promote training partners who provide courses in facility management, IT/ITES, pharmaceuticals, electrical hardware, garment making, and poultry management. Following are the key demand sectors in the district.

Sectors	Growth Opportunities
Construction	• The construction sector contributed 25 percent to the secondary sector DDP in 2009-10. • The district will require approx. 1.5 lakh skilled manpower (at various levels) till 2021-22. • More industry specific courses are required in the district such as bar bending, masonry, etc.
BFSI	• BFSI is expected to contribute significantly to the creation of jobs in skilled segment. • The sector has witnessed a highest growth rate (CAGR) of approx. 27 percent from 2004-05 till 2009-10. • Trainings are required in new financial products, data entry and insurance sector. Special focus should be on rural banking.
Auto & Auto components	• Manufacturing sector contributed highest (~70 percent) to the secondary sector DDP in 2009-10. • More training capacity need to be created in this sector to cater to industrial demand.
Chemicals & pharmaceuticals	• In terms of anticipated employment, the district will require 1.07 incremental workforce till 2021-22

Figure 320 Key demand sectors in the Rangareddy

The key stakeholders' contribution to achieve the target would be as follows:

State: The district attracts large number of migrants from across the state and southern India for better employment opportunities. Youth aspirations are high and they expect better work conditions.

Action Plan:

1. State needs to focus on training of migrant labor. Most of these are minimally skilled workers, especially in sectors such as construction. State should implement schemes encouraging industries to provide basic level skill training to these workers and certify the same through SSCs or NCVT.
2. State should focus on upgrading employment exchanges for better placements of existing labor. Currently, role played by employment exchanges is negligible.
3. State should aim to promote its existing schemes through public forums for better youth awareness.

Training Partners:

Action Plan:

1. Training providers must focus on proving highly technical skills to the youth. This will ensure that students meet the industry criteria for better placements.
2. Training providers should partner with local schools, NGOs, local bodies for better student mobilization.
3. For semi-skilled workers, focus should be on providing multi skilling courses that provide jobs at sub levels across various sectors. This will ensure portability of the skills.

Industries:

Action Plan:

1. With large skilled manpower requirement, Industry should play a greater role in ensuring that skill development is relevant.
2. Industry should actively participate in train the trainers program, facilitate guest lectures and share modern equipment for training with VTPs.
3. Industry should also actively provide feedback to the training providers to ensure better quality training.

NSDC: NSDC would be an enabler to lead the training partners in setting up skill development centres in sectors like construction, IT/ITES, retail, hospitality, BFSI, and logistics.

Action Plan:

1. NSDC should focus on rationalizing fee structure in various government and private training institutions basis on required quality standards and expected salary on training completion.
2. SSC should play an important role in assessments and certifications. Occupational standards must be properly defined to enable vertical and cross functional mobility.

4.19 Srikakulam

This chapter highlights the economic base and occupational structure of Srikakulam. It identifies the high-impact industries and skills needed to match expected growth.

The latter part of the chapter provides the projected workforce demand and supply in the coming years as well as the optimization plan for Srikakulam.

4.19 Srikakulam

4.19.1 Srikakulam District Demographic Profile

Srikakulam District at a Glance				
Population	**Srikakulam District**		**Andhra Pradesh**	**Remarks**
	Provisional Census 2011	**Census 2001**	**Provisional Census 2011**	
Total Population	2699471	2537593	84665533	
Total Population – Male	1340430	1260020	42509881	
Total Population – Female	1359041	1277573	42155652	
Population Growth	6.38%	9.33%	11.10	
Area Sq. Km	5837		275100	
Density of Population (Density/Area sq.Km)	462	435	308	
Proportion of Andhra Pradesh population	3.19%	3.33%		
Decadal growth of population (2001 - 2011)	6.38%	9.33%	11.10%	
Literacy rate	62.30	55.31	67.66	
Male Literacy	72.25	67.19	75.56	
Female Literacy	52.56	43.68	59.74	
Sex ratio (per 1000)	1014	1014	992	
Worker population participation rate		47.4	45.7	Census 2001
Cultivators to total workers		22.2	22.52	Census 2001
Agriculture laborer in workforce		46.3	39.64	Census 2001
Household workers		4.10	4.71	Census 2001
Other industry and services		27.3	33.13	Census 2001

Table 180 Srikakulam district at a glance

Srikakulam is located in the north-eastern part of Andhra Pradesh, and is among the more backward districts of the state, despite its natural and other resources. Srikakulam is bound to the north by Odhisha state, to the west and south by Vizianagaram district of Andhra Pradesh, and to the east by the Bay of Bengal. The total area of the district is 5827 sq kms. Administratively, it is divided into three revenue rivisions, Srikakulam, Palakonda, and Tekkali. These three divisions are made up of 38 mandals, which in turn comprise of 1,870 villages out of which 1,767 are inhabited. As per provisional Census 2011 data, Srikakulam has a population of 2.537 million, with sex ratio of 1,014 females for every 1,000 males. The total area of the district is 5,837 sq.kms. It accounts for 3.19% of the total area in Andhra Pradesh.

Srikakulam is the third least populous district out of Andhra Pradesh's 23 districts. On the other hand, the district is has the second sex ratio in the state. Significantly, 68,641 hectares or 12 percent of Srikakulam is forested. These forests are important sources of tamarind, timber, turmeric, hill brooms, gum, cashew, pineapple, custard-apple, adda leaves, beedi leaves, nuxvomica, soap nuts, marking nuts etc. The district is behind many other districts in Andhra Pradesh, with a human development index of 0.453, which is lower than the state average of 0.537. While the proportion of the urban population has increased to 16.16 percent in 2011 from 10.98 percent in 2011, Srikakulam's urban population ratio is the second lowest in the state. The district also reports a low per capita income of INR 24,455 compared to the state's per capita income of INR 31,847 at constant price 2004-05. Srikakulam's population is mostly rural and there is a declining trend in employment opportunities.

Srikakulam's literacy rate in 2011 was 62.30 percent, ranking it the seventh lowest in the state. The literacy rate in 2001 was 55.31 percent. Gender wise, around 72.25 percent of males and 52.63 percent of females are literates.

It is pertinent to note that the total workforce participation rate in Srikakulam district is 47.4 percent. Out of the total working population, the male population is around 56.6 percent against the 38.4 percent for female workers. But while the female workforce participation rate is lower than that for males, the female working population rate is higher than the state figure by 4.5 percent. Out of the total working population, the main worker population comprises 34.3 percent of the total population followed by the marginal workers at 13.1 percent and non-workers at 52.6 percent. It is pertinent to note that the proportion of marginal workers in this district is higher than against the state figure (of 7.7 percent) by 5.4%. Out of those classified as main workers, 26.83 percent are main workers followed by 36.54 percent who are agricultural laborers, 4.22 percent who work in household industries, and 32.41 percent who are employed in other industries. The data indicates that agricultural laborers and those engaged in 'other industries' dominate the total working population.

4.19.2 Economic Profile

The district's Gross district domestic product (GDDP) has grown at the growth rate (CAGR) of 6.4 percent from 2004-05 till 2009-10. In 2009-10, tertiary sector contributed approx. 58 percent to the GDDP primarily due to the contribution of trade, hotels and restaurants sector followed by primary sector which contributed approx. 21.1 percent to the district's GDDP.

The chart below shows GDDP of primary, secondary and tertiary sector from 2004-05 till 2009-10.

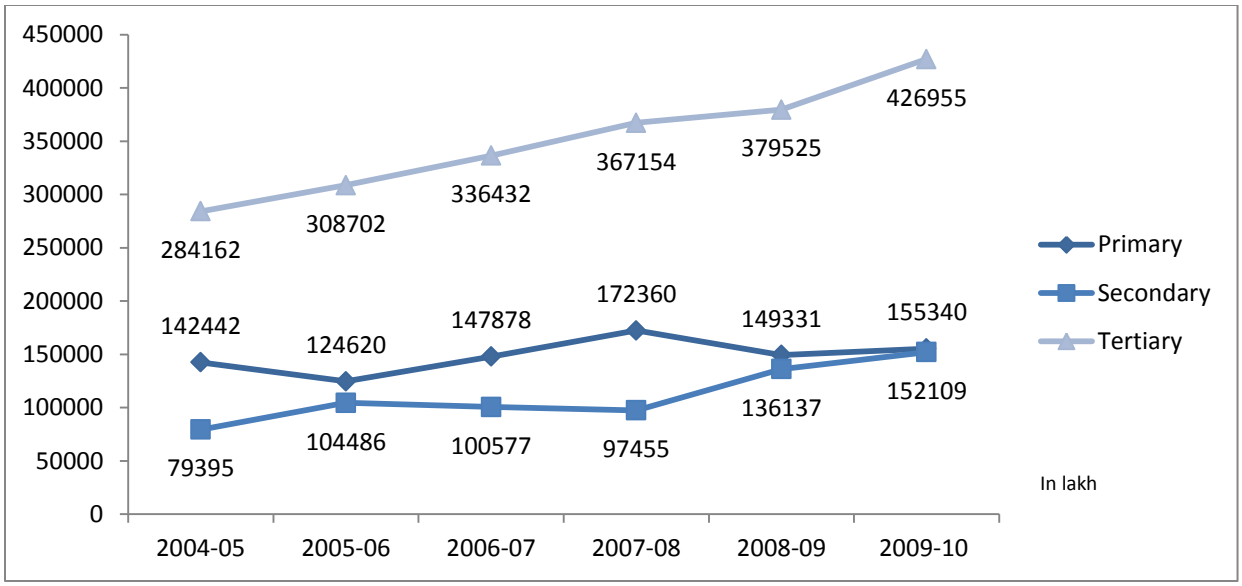


Figure 321 Sectoral contribution to GDDP, Srikakulam

Primary Sector

The primary sector (agriculture, forestry &logging, livestock, fishing and mining & quarrying) contributed approx. 21 percent to the GDDP in 2009-10. Agriculture sector remained as the highest contributor to the primary sector, contributing 57 percent to the primary sector in 2009-10, followed by livestock (20 percent), mining and quarrying (7 percent), forestry and logging (6 percent) and fishing (10 percent).

The CAGR for primary sector is 1.46 percent from 2004-2005 till 2009-10.

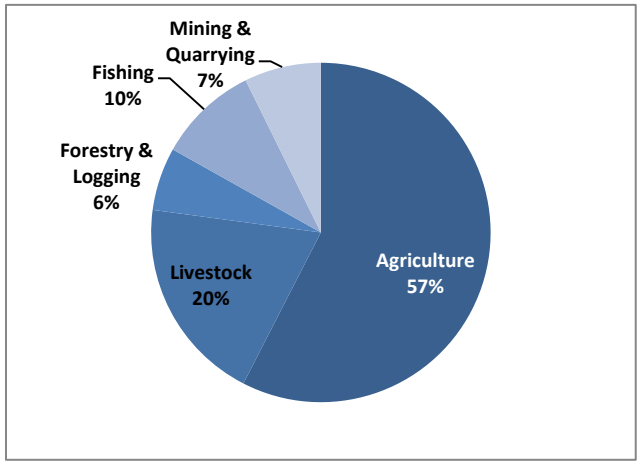


Figure 322 Primary sector contribution to GDDP, 2009-10

Secondary Sector

The contribution of the secondary sector to district GDP in 2009-10 was approximately 20.7 percent. The sector has shown a CAGR of 11.4 percent from 2004-05 till 2009-10, primarily due the contribution of construction sector.

The construction sector has shown an impressive CAGR from 2004-05 till 2009-10. However the growth of manufacturing sector has been the highest with registered manufacturing units growing only 16.45

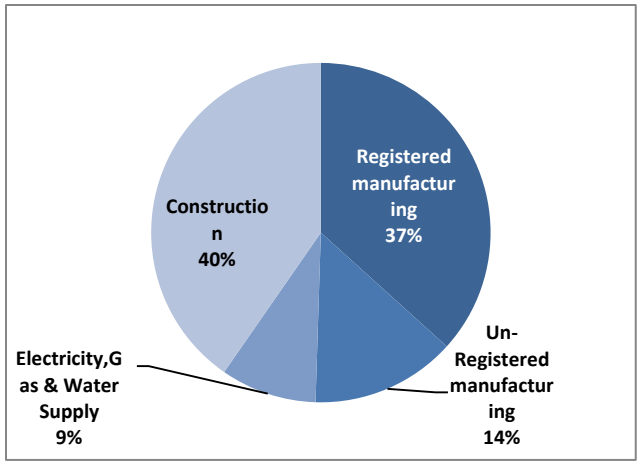


Figure 323 Sectoral contribution of secondary sector, 2009-10

percent and unregistered manufacturing from 2004-05 till 2009-10.

Tertiary Sector

The contribution of the tertiary sector has been significant to the district's economy over the years. In the year 2009-10, the contribution of the tertiary sector was approx. 58 percent to the district's GDDP. The sector has witnessed CAGR of approx. 7 percent from 2004-05 till 2009-10, primarily due the trade, hotels and restaurants sector.

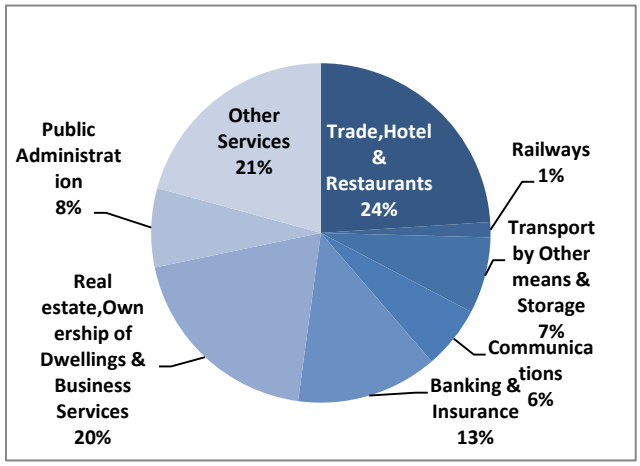


Figure 324 Tertiary sector contribution to GDDP, 2009-10

Industry Mapping

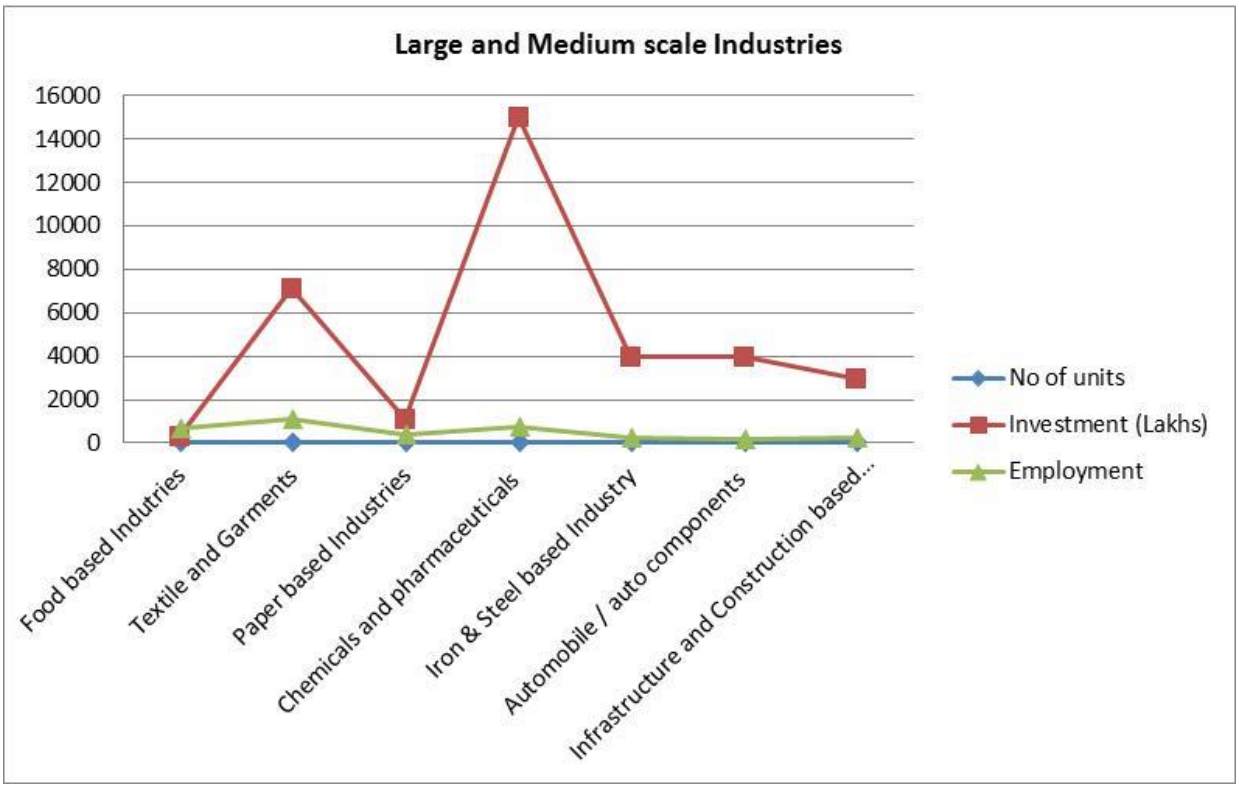


Figure 325 Large Scale & Medium scale Industries, DIC

Srikakulam is backward in terms of industry. There are five large industrial areas with a total area of 457.54 hectares. According to the Department of Mines & Geology, beach sand was the highest produced mineral, with 178,456 ton of output in 2010-11, followed by quartz at 5.344 ton, Kankar limestone at 220 ton, and manganese at 1624 ton Other minerals like RMBS, gravel, color granites, and sand are also produced in small quantities. There are approximately

106 commercial bank branches and 13 co-operative banks in the district. . The district has the potential to make various agro inputs for products like fertilizers, chemicals, pesticides, plastic molded goods, and agricultural implements, spares for jute mills, and rice mills.

Large & Medium Industries

The district has 35 large and medium industries providing employment to 9,155 persons. Some of the prominent sectors are jute, textiles, auto parts, and chemicals and pharmaceuticals. Together they have an investment of INR 7,350 million. Major industries in the district include Dr. Reddy's Laboratories, SAMKRG Pistons and Rings, GMR Technologies, Aurobindo Pharma and Saritha Synthetics. The district has become a hub of the pharmaceutical industries.

Small Scale Industries

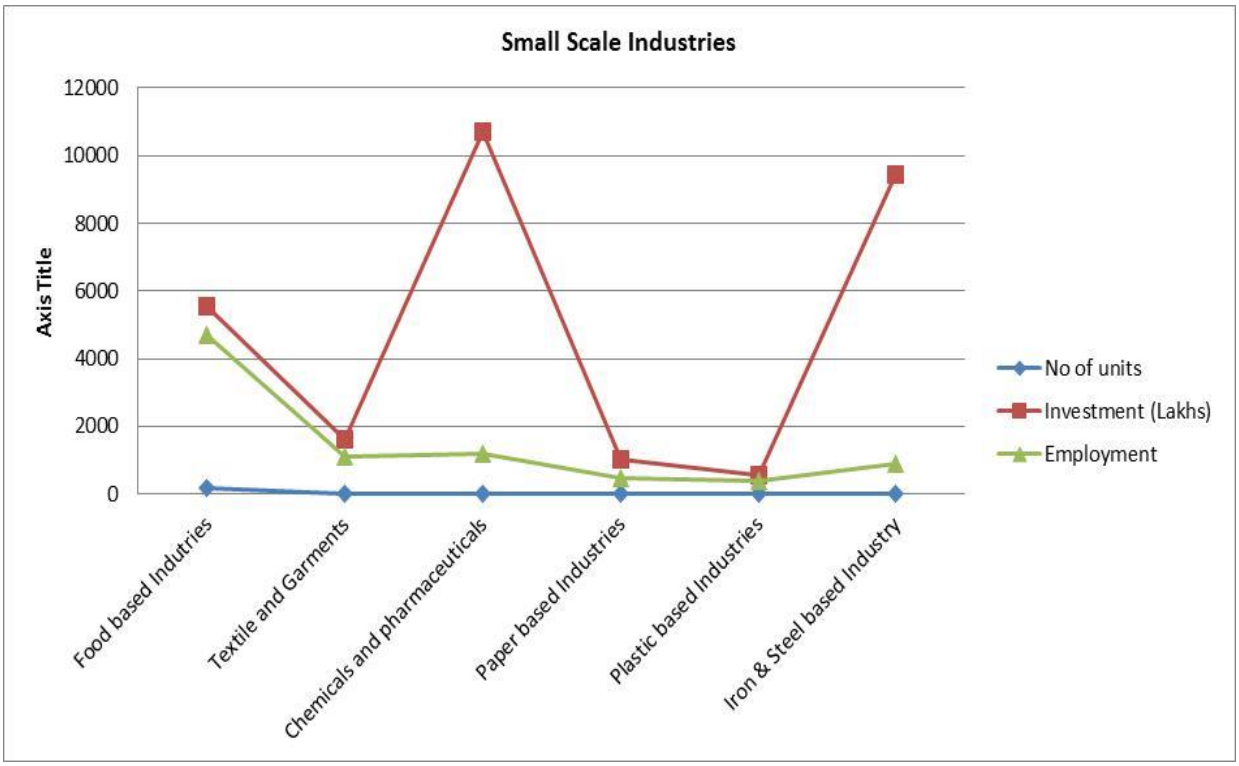


Figure 326 Small scale Industries, DIC

According to the district industries centre, there are 5,576 registered small scale industrial units. Some of the prominent small scale industries attracting the greatest investments include chemical based industries, agro industries, and iron and steel makers. In Srikakulam, agriculture and allied activities have great potential in both urban and rural areas.

4.19.3 Education Infrastructure and Utilization

Table 181 Education Statistics; Source: Statistical Abstract, Andhra Pradesh – 2011

Schools	Total Number	No. of Enrollments
Primary Schools	2753	146570
Upper Primary Schools	827	102753
Secondary Schools	534	159438
Higher Secondary Schools	8	4093

Srikakulam has the lowest literacy rate in Andhra Pradesh, highlighting the need to sensitize people about the importance of education. The district has too few schools and colleges to be able to develop the skills of its youth.

As per Census 2001, the total number of graduates and above in Srikakulam district was 59,134. It is interesting to note that out of the total population of graduates and above, 80 percent are male. Srikakulam's graduates made up 2.09 percent of the total population of graduates in Andhra Pradesh.

Table 182 Education Statistics; Source: Statistical Abstract, Andhra Pradesh – 2011

Units	Total number
Colleges	69
Technical University	1
Nursing College	1
Law college	1
B.Ed College	10
DIET college	2
ITI (government)	2
ITI (private)	10
Polytechnic	2
Pharma college	2
Medical college	3
Engineering college	10
MBA college	2

Looking at schools, the gross enrolment ratio, for classes I-V was 95.62 percent, followed by 79.78 percent for classes VI – VIII, and 65.43 percent for classes VIII – X. The corresponding figures for the state as a whole are 100.46 percent, 84.76 percent and 69.51 percent respectively. This implies that the number of primary schools have to be increased in the years to come. On the bright side, Srikakulam's droput rates are lower than in many other districts.

For technical education, there are ten private engineering colleges. They offer a variety of courses and have a combined intake capacity of approximately 3,010 students per year. Major courses offered include computer science and engineering courses in electronics, telecom, computer engineering, electrical engineering, mechanical engineering, and instrumentation.

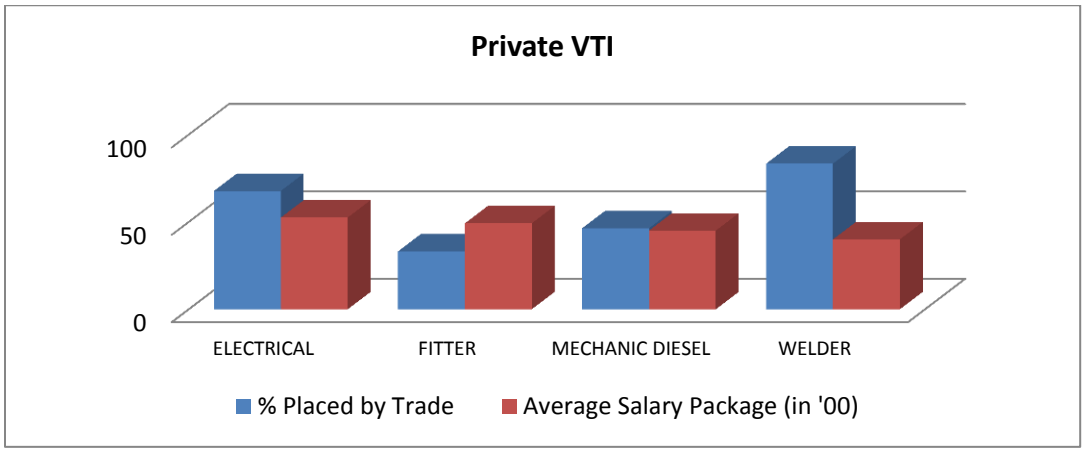
4.19.3 Demand for VTIs across various trades in Srikakulam district

Srikakulam has two government ITIs and ten private ITIs. The overall intake of all ITIs and ITCs is around 7399 students per annum. These institutes impart training in various trades like those for fitters, carpenters, instrument mechanics, dress makers, electronics, stenography, turners, welders, electrician, motor mechanics, and COPA. New trades are introduced based on the emerging demand from industry. At present in Srikakulam district, trades like those for fitters, electricians, and COPA are in demand. All the trades at ITIs are permanently affiliated to the National Council of Vocational Training of Director General of Employment and Training.

Government VTI Trades		Private VTI Trades
COPA	FITTER	ELECTRONICS
D/M.CIVIL	INSTRUMENT MECHANIC	FITTER
MECHANIC DIESEL	MOTOR MECHANIC	MECHANIC DIESEL
DRESS MAKING	WELDER	TURNER
ELECTRICAL	ELECTRONIC MECHANIC	WELDER

Table 183 Courses offered in government and private VTIs (sample), Srikakulam

The government VTIs sampled for the study offer training in ten different trades while private VTIs offer four courses. The government VTIs has sanctioned batch strength of 30 to 320 for each course. Although the district has a high female population ratio, the women-oriented dress making course witnessed no enrollment in the government VTIs. The private VTIs need to raise awareness among women is obvious. Unlike in many other districts, the gap between the approved seats and actual seats occupied is negligible in both government and private ITIs. The electricians and fitter trades are the most popular in both government and private it is. The electrician's trade got 1,161 students and the fitter trade admitted 792 candidates.



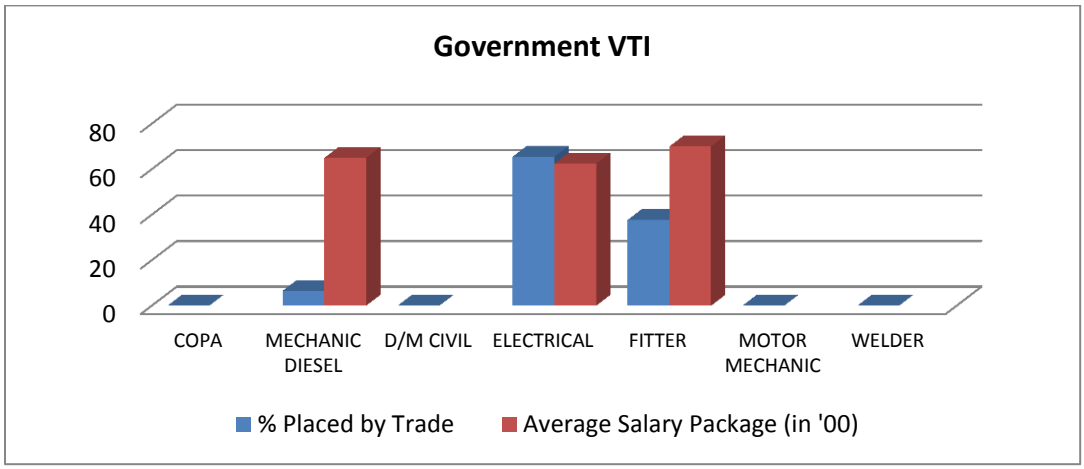
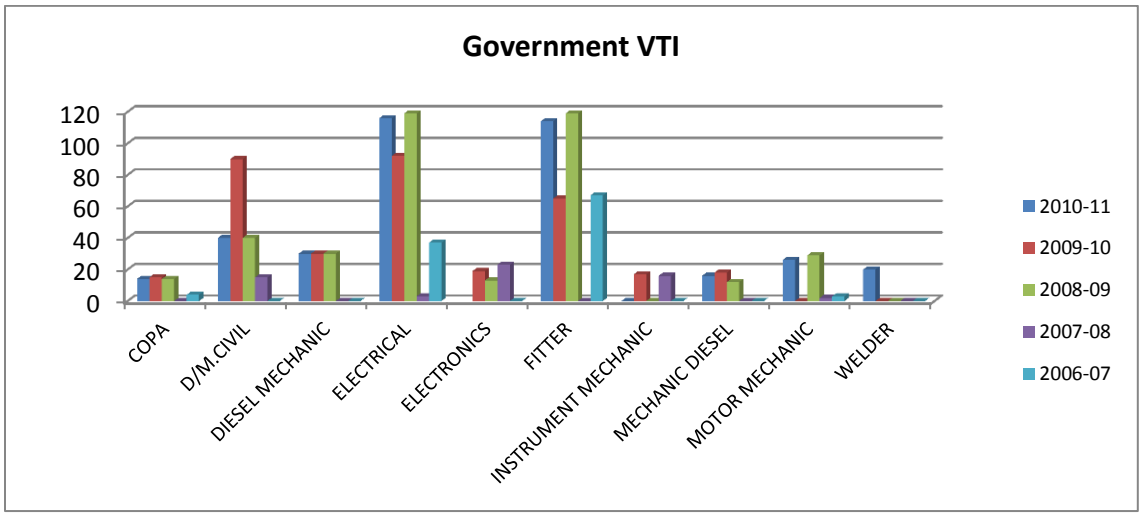


Figure 327 VTIs with placement percentage and average salary across trades

While some courses are popular, placement rates in government VTIs is poor. The big exception to this is the electricians' trade. The lowest numbers of trainees are from the fitter trade, though average salaries tend to be good, standing at about INR 7,000 per month.

All in all, placement prospects are much better in private VTIs. In private institutions, the highest number trainees are in the welding course. However, on average the highest-paying jobs were for candidates from the electrical trade, with average salaries of about INR 5,250. Most placements in private ITIs were done through campus recruitment.



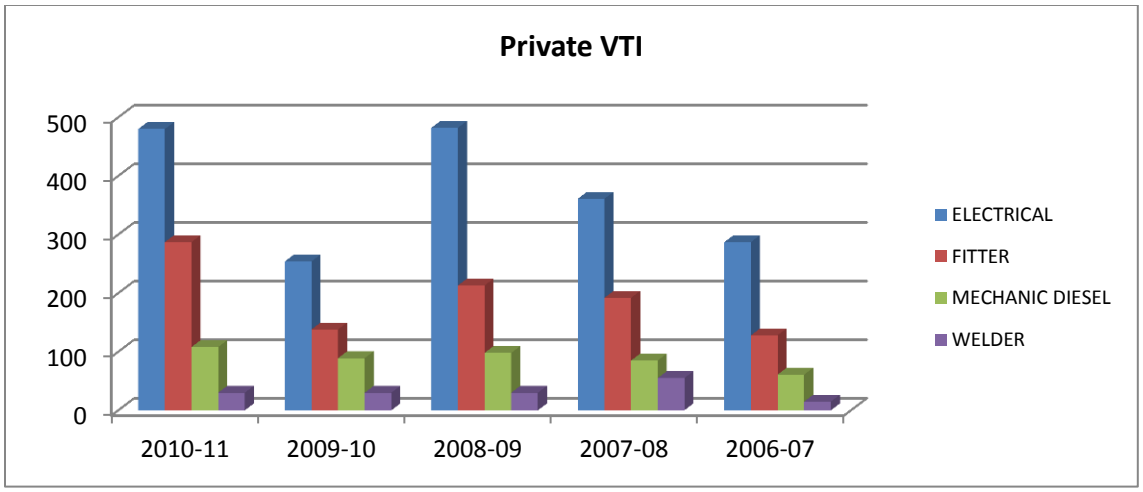


Figure 328 No. people trained over years in different trades of Private VTI

As the graphs above show, demand for vocational courses have been increasing in each year.

Government VTIs appear to be understaffed in terms of managerial, academic and support manpower. On the other hand, private VTIs, appear to have the required number man.

4.19.4 Placement & Absorption Trend

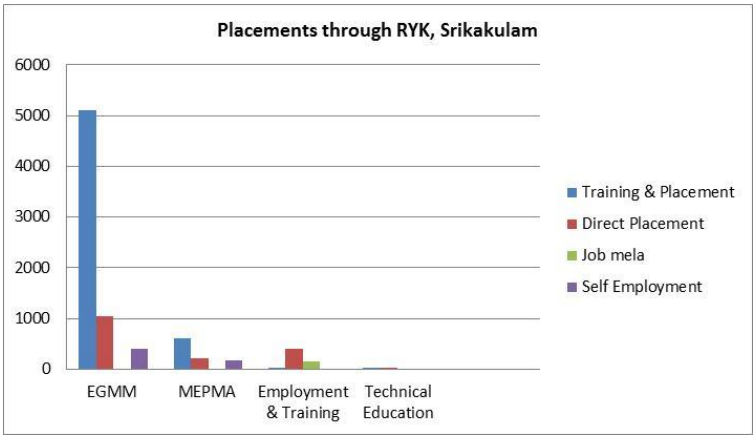


Figure 329 Placements through RYK; Source: RYK state level placements monitoring report, June 2012

The government's own employment exchange and Rajiv Yuva Kiranalu are also avenues for job seekers. While most placements take place through direct industry linkages, there has been a marginal absorption trend through direct placements by industries offering job specific training linked to placement. The Job Mela organized by the Rajiv Yuva Kiranalu, has made very few placements. Srikakulam has one employment exchange, with 63,480 candidate names in the live register during 2009-10. However, only about 15 candidates actually got placed through the exchange.

4.19.5 Sector wise mapping of industries in Srikakulam

Food-based industries are growing rapidly in Srikakulam. Other sectors with promise are minerals based and textiles-based industries. These sectors are likely to provide significant employment opportunities for skilled, semi-skilled and minimally-skilled workers. More employment could also be found in emerging sectors like paper and plastics manufacturing

Industry wise Sector Mapping				
NSDC (High growth sectors)	**Units**	**Employment**	**High**	**Medium**
Agriculture & Allied				
Automobile & Auto components	6	142		
Food Processing (Food beverages and Tabacco products)	516	10624		
Electronics Hardware	6	571		
Textiles and Garments	33	5952		
IT				
Chemicals and Pharmaceuticals	16	5956		
Tourism, Hospitality and Travel	1634			
Transportation/Logistics/Warehousing and Packaging				
Healthcare	96	104		
Education/ Skill Development	7	85		
Banking/ Insurance and Finance	188			
Manufacture of Wooden furniture	92	480		
Paper and Publication	6	406		
Rubber and Plastics				
Petroleum				
Mining & Quarrying	7	136		

Industry wise Sector Mapping				
Cement based industries				
Forest based industries				
Minerals based industries	166	2231		
Service based industries (Repairs & maintenance: R&D)	22	751		

Table 184 Sector wise mapping of Industries; Source: DIC

High	Units>200, emp>1000 - all applicable
Medium	Units>100, emp>500 - all applicable
Low	Units>10,emp>30 - all applicable

Though Srikakulam is an industrially backward region, there is great scope for establishing agro food-based industries, textile manufacturing, and chemicals based industries. There has been marginal trend indicating workforce demand from emerging sectors like the wood industry, paper printing, mining and quarrying, and the service industry.Some of the leading players in this district include Aurobindo Pharma Ltd., Dr. Reddy's Laboratories, Trimex Heavy Minerals Pvt. Ltd., SAMKRG Pistons and Rings etc.

4.19.6 Composition of Workforce

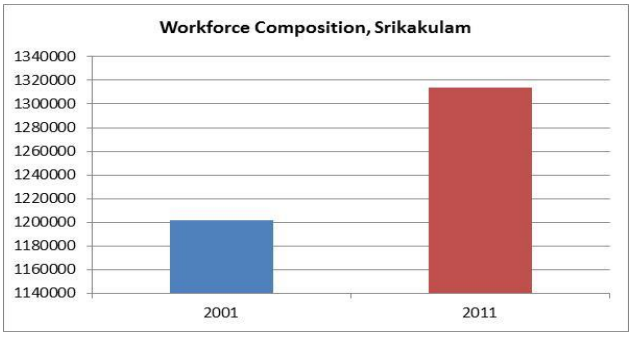


Figure 330 Projected Workforce; Source: Deputy Commissioner of Labour, 2012

According to the provisional Census 2011 data, the total workforce in Srikakulam is expected to rise by 9.3 percent against the 2001 data. The major workforce participation observed in the district over a period of two decades has shown that agricultural laborers still dominate the working population.

Srikakulam's total workforce participation rate is 47.4 percent. Out of the total working population, males make up 56.6 percent and females, just 38.4 percent. However, the female working population rate is higher than the state figure by 4.5 percent.

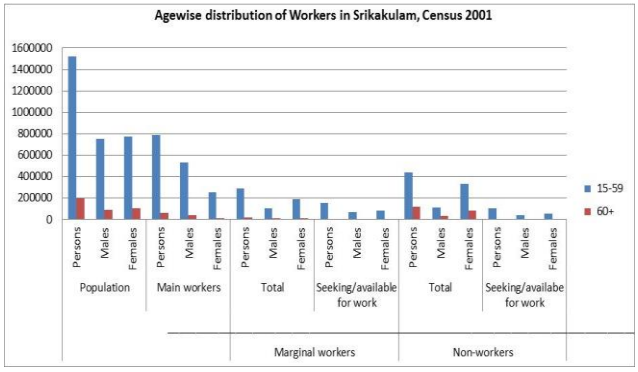


Figure 331 Age wise distribution of workers Source: Dept. of Labour

Out of the total working population, the main worker population comprises 34.3 percent of the total population followed by the marginal workers at 13.1 percent and non-workers at 52.6 percent. It is pertinent to note that the proportion of the marginal workers in this district is higher than the state average by 5.4%. Out of the population od main workers, 26.83 percent are engaged as cultivators,

followed by 36.54 percent who are agricultural laborers, 4.22 percent in household industries, and 32.41 percent are in other industries. The working population trend in the district indicates that agricultural laborers followed by the workers engaged in the 'other industries' category dominate the total working population.

Separately, among the population of marginal workers, 72.12 percent are agricultural laborers. Also, the proportion of marginal workers in Srikakulam exceeds the state figure by 6.6 percent. In Srikakulam, it has been estimated that the proportion of workers in the age group 15-59 years is higher in the category of main workers. Interestingly, among non-workers and marginal workers, females in the age group of 15-59 outnumber males. Srikakulam district is ranked as the fifth lowest in the state with the working population in the age of 15-59 years.

4.19.7 Projected Workforce Demand

This section of the report assesses the projected workforce demand and investment patterns across sectors until 2022. As indicated in the table below, high manpower demand will be in construction, tourism, travel & hospitality, wood & paper production and BFSI sectors in this the district till 2022.

Table 185 Incremental Manpower demand across various sectors till 2022 in Srikakulam

	2012-2017			2017-2022		
Industry	**Skilled**	**Semi-Skilled**	**Minimally Skilled**	**Skilled**	**Semi-Skilled**	**Minimally Skilled**
Agriculture & Allied Activities	-2248	-11239	-42707	-4281	-21403	-81330
Mining & Quarrying	72	-318	15	-190	-150	-204
Construction	20558	24813	19164	21567	23107	34506
Tourism, Travel & Hospitality	35020	-4690	-6443	11921	5364	3576
Transportation, Logistics, Warehousing & Packaging	-3052	-1555	-518	-4037	-2056	-685
IT & ITES Sector	7762	813	148	8171	855	156
Banking & Financial Services Insurance	12808	1602	393	9995	4498	2999
Real estate	2113	2979	-146	983	1053	1573
Other Services	12123	-4544	-4679	93	46	20
Electricity, gas & water supply	-179	-105	-74	-179	-107	-72
Food processing	536	222	314	536	322	215
Chemicals & Pharmaceuticals*	2453	1271	1181	2453	1472	981
Rubber and plastic products*	-470	-273	-197	-470	-282	-188

Auto & Auto components*	521	243	278	521	313	209
Metals & non metallic products*	1556	841	715	1556	934	623
Textile & leather	345	-25	370	345	207	138
Wood & Paper products	8656	4941	3716	8656	5194	3463
Total	98575	14976	-28469	57641	19366	-34022

4.19.8 Skill Gap Analysis

The skill gap analysis was performed by undertaking a survey. A structured questionnaire was designed to map current and the future skill requirements of the industries identified in Srikakulam district. The analysis factored in industry linkages with vocational training institutes, the employment exchange, and other sources for workforce absorption and retention.

Overall, the supply of minimally skilled labor exceeds demand in all the years examined. The supply of skilled manpower remains low as per the industry demand.

Table 186 Representation of incremental Skilled/ Semi-skilled & Minimally skilled workforce trend 2010-2022

Incremental workforce Demand & Supply Gap						
	2012-17			2017-2022		
	Skilled	**Semi-Skilled**	**Unskilled**	**Skilled**	**Semi-Skilled**	**Unskilled**
Demand	98575	14976	-28469	57641	19366	-34022
Supply	6942	10580	91764	2255	10285	78297
Gap	91633	4397	-120234	55387	9081	-112319

4.19.9 Youth Aspirations

The youth survey study was primarily undertaken through survey instrument, which used structured questionnaires designed to capture youth aspiration and perception. The survey covered candidates across the categories of employed, self-employed, unemployed and trainees. Interviews were held with students and focus group discussions were organized.

Out of those surveyed, 80 percent were college educated and only 20 percent had completed high school education. All the respondents were covered from registered VTIs for relevance in skilling initiatives of the government and private VTIs. Out of the respondents who were trainees, 65% were undergoing training at government VTIs and the remaining 35 percent were at private institutions.

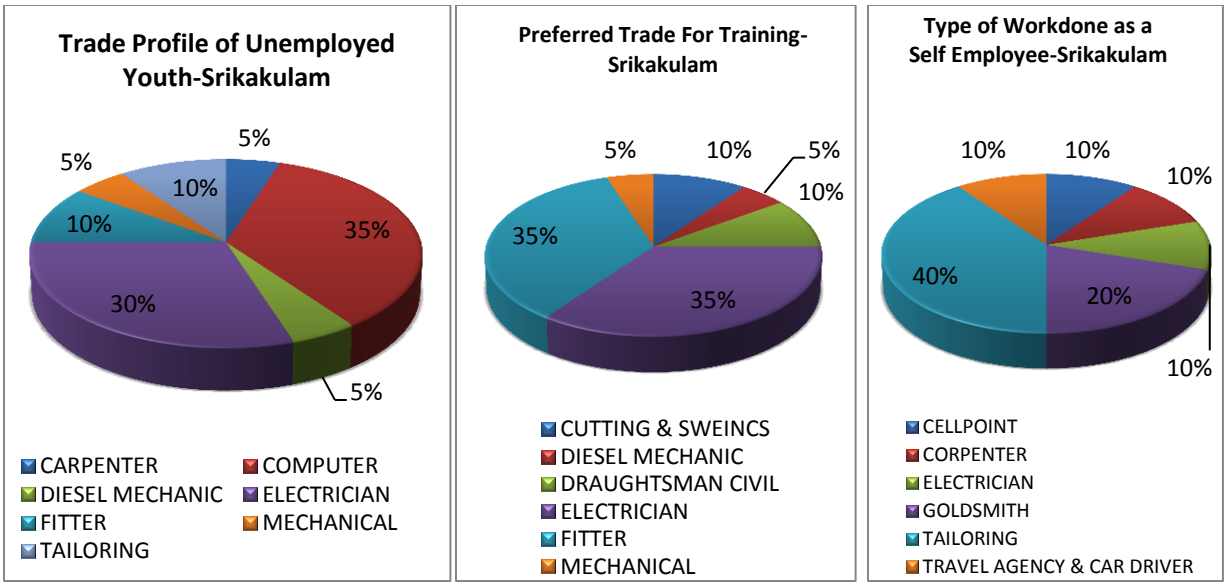


Figure 332 Profile of respondents (trainee, self-employed & unemployed youth)

Among the respondents covered, 30 percent chose the electricians course and 35 percent opted for the computers course. Out of those self-employed, 40 percent selected tailoring followed by 20 percent who were goldsmiths.

Parameters considered by District's youth while opting for vocational training

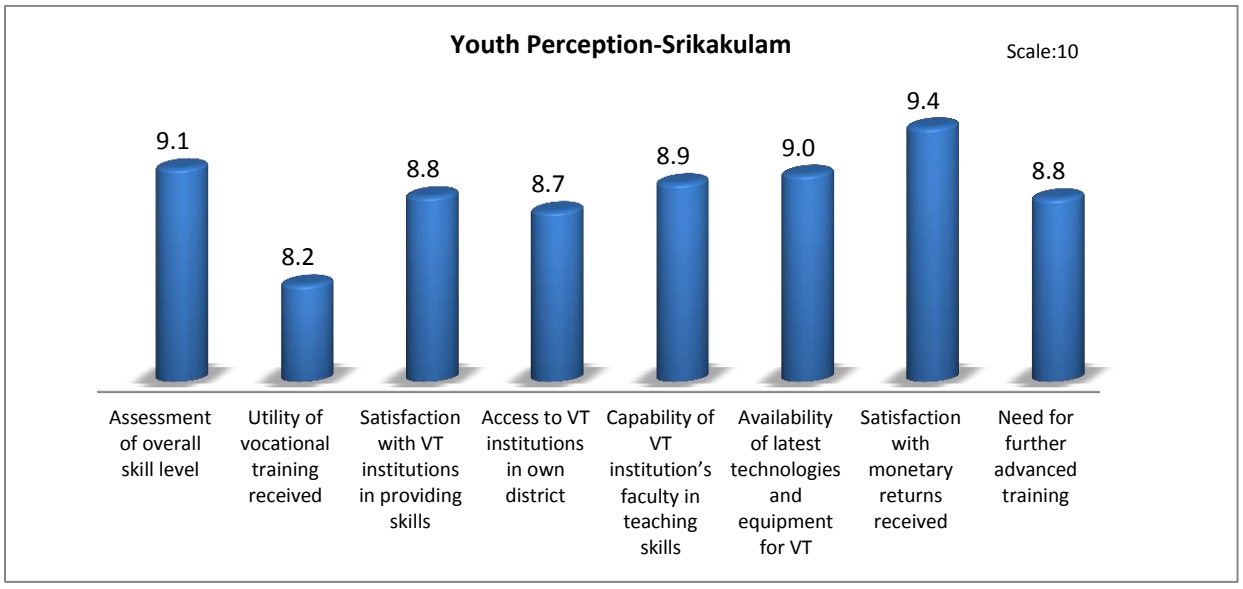


Figure 333 Srikakulum Youth's perception, need and aspirations –Sample Group

The young of Srikakulam appear aspirational for vocational training. Most were satisfied with their monetary returns and gave high rating to their VTIs. But despite the satisfaction with current salary levels, those surveyed were also motivated to upgrade their skills further and get greater pay. All respondents had received annual increments.

4.19.10 Recommendation: Skill Development Eco System

In terms of anticipated employment, construction sector will have the highest incremental manpower demand followed by tourism & hospitality, wood & paper products, banking & financial services and ITES. Following are the key incremental demand sectors in the district:

Table 187 Key manpower demand sectors in the district

Sectors	Growth Opportunities
Construction	• The construction sector contributed 40 percent to the secondary sector DDP in 2009-10. • The district will require approx. 1.43 lakh incremental manpower demand till 2021-22. • More industry specific courses are required in the district such as bar bending, masonry, etc.
BFSI	• BFSI is expected to contribute significantly to the creation of jobs in skilled segment. • The sector has witnessed a growth rate (CAGR) of approx. 14 percent from 2004-05 till 2009-10. • Trainings are required in new financial products, data entry and insurance sector. Special focus should be on rural banking.
Manufacturing sector such as food processing, wood & paper products, chemicals & pharma	• The manufacturing sector was the highest contributor (51 percent) to the secondary sector DDP in 2009-10. • The sector has witnessed a CAGR of approx. 10.3 percent from 2004-05 till 2009-10. • Currently no courses are being focused on this sector thus more focus on training is required in this sector.
Tourism, travel & hospitality	• The trade, hotels and restaurants sector contributed highest (24 percent) to the tertiary sector DDP in 2009-10. • The sector has witnessed a CAGR of approx. 7.4 percent from 2004-05 till 2009-10.

State:

Action Plan:

1. Owing to the high female workforce participation ratio, State should introduce more female oriented courses in the vocational training. Focus should also be on increasing the intake capacity of the existing courses.
2. State should invite established companies in upcoming sectors for curriculum development to ensure relevance and quality.

Training Partners:

Action Plan:

1. Large section of the population in the district is based in rural areas. Focus should be on improving the accessibility of the students to vocational courses.
2. Introduction of mobile classrooms, VSAT training should help in increasing reach of vocational courses.

3. Target segment for training providers will be population with minimal educational qualifications. Training providers should introduce level based courses, encouraging trainees to take up-skilling courses after basic courses.

Industry:

Action Plan:

1. Industry should tie up with training partners to deliver on-the-job training to existing workers.
2. Industry should also actively provide feedback to the training providers to ensure better quality training.

NSDC:

Action Plan**:**

1. NSDC should focus on increasing linkages between training providers, state and industry.
2. Focus should be on improving the existing quality of the training infrastructure.

4.20 Vishakhapatnam

This chapter highlights the economic base and occupational structure of Vishakhapatnam. It identifies the high-impact industries and skills needed to match expected growth.

The latter part of the chapter provides the projected workforce demand and supply in the coming years as well as the optimization plan for Srikakulam.

4.20 Vishakhapatnam

4.20.1Vishakhapatnam District Demographic Profile

Table 188 Vishakhapatnam district at a glance

Vishakhapatnam District at a Glance				
Population	**Vishakhapatnam District**		**Andhra Pradesh**	**Remarks**
	Provisional Census 2011	**Census 2001**	**Provisional Census 2011**	
Total Population	4288113	3832336	84665533	
Total Population – Male	2140872	1930197	42509881	
Total Population – Female	2147241	1902197	42155652	
Population Growth	11.89%	16.66%	11.10	
Area Sq. Km	11161		275100	
Density of Population (Density/Area sq.Km)	384	343	308	
Proportion of Andhra Pradesh population	5.06%	5.03%		
Decadal growth of population (2001 - 2011)	11.89%	16.66%	11.10%	
Literacy rate	67.70	59.96	67.66	
Male Literacy	75.47	69.68	75.56	
Female Literacy	60.00	50.12	59.74	
Sex ratio (per 1000)	1003	985	992	
Worker population participation rate		43.1	45.7	Census 2001
Cultivators to total workers		27.1	22.52	Census 2001
Agriculture laborer in workforce		26.31	39.64	Census 2001
Household workers		3.52	4.71	Census 2001
Other industry and services		43.1	33.13	Census 2001

The district headquarters is Visakhapatnam city, a fast developing port. Visakhapatnam is the fifth largest city in Andhra Pradesh. The district also stands out because most parts outside the city are inhabited by tribals. In recent years there has been rapid industrialization and urbanization resulting in a surge of migration into the city. The district ranks high in the human development index, with a score of 0.553, which is the eleventh highest in Andhra Pradesh. The district is also rapidly urbanizing. Provisional data from Census 2011 shows the urban population constituted 47.51 percent of the total population in comparison to 39.95 in Census

2001. The district also reports a per capita income of INR 50,976 against the state's average of INR 37,061 at constant price 2004-05

As per provisional census 2011 data, Vishakhapatnam has a population of 4.288 million with a sex ratio of 1003 females per 1000 males, compared to the 2001 census figure of 985 females. The decadal growth of population slowed down by of 4.77 percentage points according to the 2011 figures, an indication the population may be stabilizing. The district had a population density of 384 inhabitants per square kilometer in 2011 compared to 343 in 2001.

The literacy rate of Visakhapatnam in 2011 is 67.70 compared to 59.96 in 2001 and is slightly higher than the state figure of 67.66. According to Census 2011 provisional data, the male literacy figure stood at 75.47 per cent, while female literacy was at 69.68 per cent. Vishakhapatnam is in the tenth position among districts in the state.

The total workforce participation rate of Visakhapatnam district is 43.1 percent. The total male working population is 55.6% against the female working population of 27.8%. The proportion of the female working population in Vishakhapatnam district is lower (7.1%) against the state figure.

As per Census 2001, the working population of Visakhapatnam district is 43.1% of the total population. Out of the main workers, 62.4 percent are engaged in agricultural and allied activities. Another 25.98 percent work in the service industry. Smaller portions of the populations work in other industries. These include the 6.48 percent in manufacturing, the 2.65 percent in household industries and the 2.49 percent working on construction. The engagement of workers in secondary and tertiary sector has shown an increasing trend as per the industrial growth of the district. The workers population in the district indicates that agricultural labors service based industries dominate the total working population.

4.20.2 Economic profile

The district's Gross district domestic product (GDDP) has grown at the growth rate (CAGR) of approx. 4.3 percent from 2004-05 till 2009-10. In 2009-10, tertiary sector contributed approx. 54.8 percent to the GDDP primarily due to the contribution of trade, hotels and restaurants sector followed by secondary sector which contributed approx. 32.7 percent to the district's GDDP.

The chart below shows GDDP of primary, secondary and tertiary sector from 2004-05 till 2009-10.

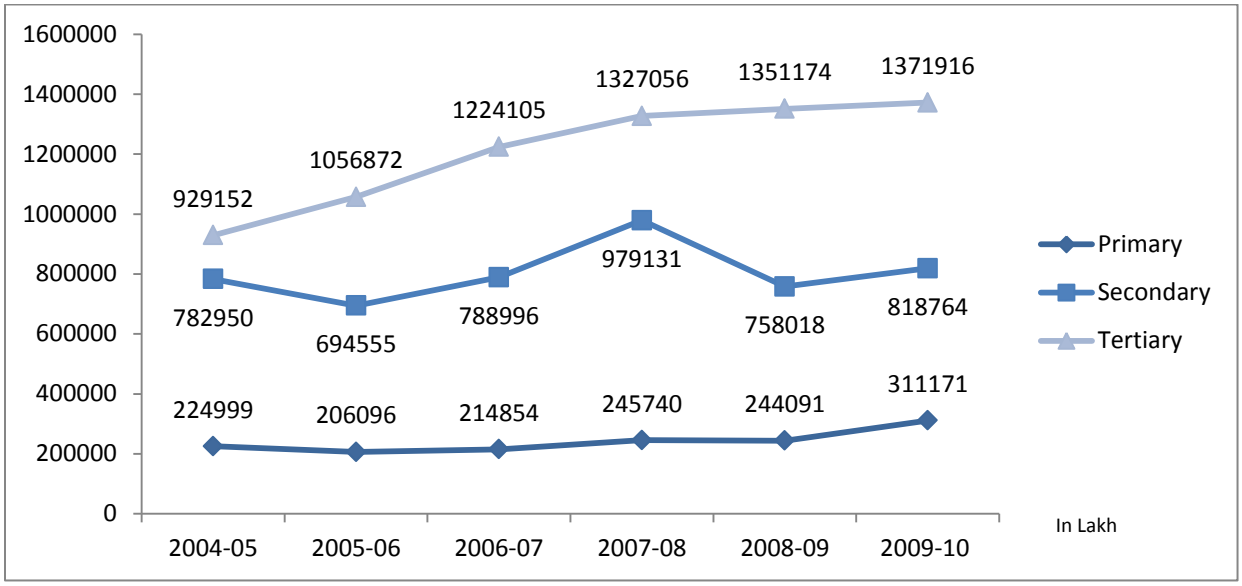


Figure 334 Sectoral contribution to GDDP, Visakhapatnam

Primary Sector

The primary sector (agriculture, forestry &logging, livestock, fishing and mining & quarrying) contributed approx. 12.4 percent to the GDDP in 2009-10. Mining & quarrying was the highest contributor to the primary sector, contributing approx. 29 percent to the primary sector in 2009-10, followed by agriculture (27 percent), forestry and logging (9 percent), livestock (25 percent) and fishing (10 percent).

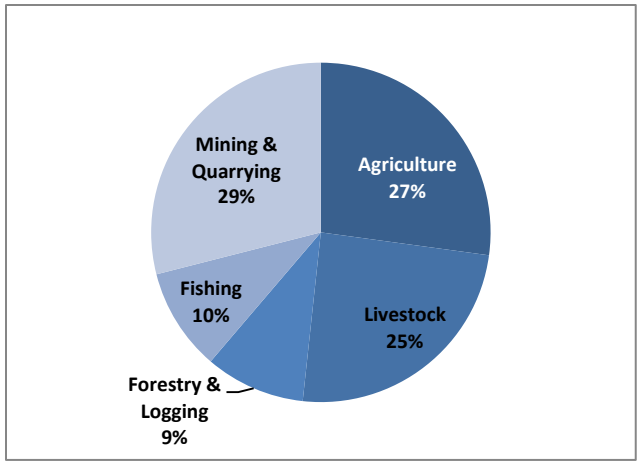


Figure 335 Primary sector contribution to GDDP, 2009-10

The CAGR for primary sector is approx. 6 percent from 2004-2005 till 2009-10.

Secondary Sector

The contribution of the secondary sector to district GDP in 2009-10 was approximately 32 percent. The sector has shown a CAGR of 0.75 percent from 2004-05 till 2009-10, primarily due the contribution of manufacturing.

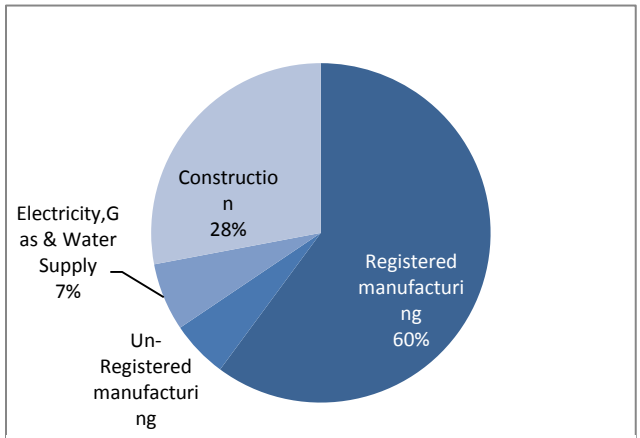


Figure 336 Secondary sector contribution to GDDP, 2009-10

Tertiary Sector

The contribution of the tertiary sector has

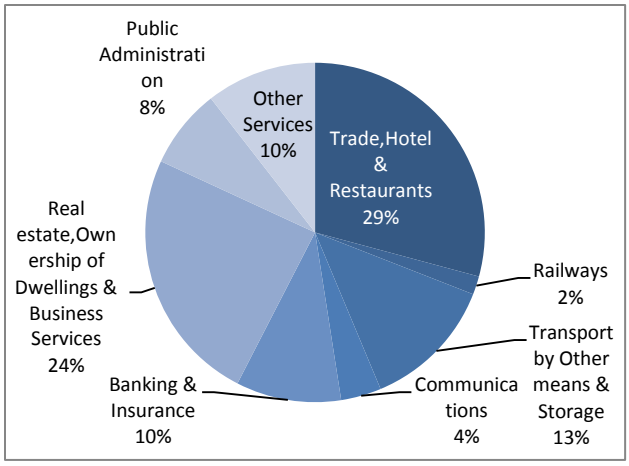


Figure 337 Tertiary sector contribution to GDDP, 2009-10

been significant to the district's economy over the years. In the year 2009-10, the contribution of the tertiary sector was approx. 54 percent to the district's GDDP. The sector has shown the highest CAGR among the three sectors of 6.7 percent from 2004-05 till 2009-10, primarily due the trade, hotels and restaurants sector.

Industry Mapping

Visakhapatnam is considered a major industrial center in the southern region. Industry in this district contributes 7.20% of GDP at constant prices from 2004-05 to 2009-10. Not surprisingly, there is burgeoning demand for quality manpower.

Visakhapatnam is becoming a major port city of India. Industries like oil refining, fertilizers, and zinc and steel plants have set up shop in the district. Visakhapatnam also has the largest ship-building yard in India which has contributed to its rapid industrialization with the onset of major industries such as oil refinery, fertilizer and zinc industry and steel plant. Besides these trends, Visakhapatnam is now emerging as an important centre for the information technology industry. In recent times sectors like tourism and other services have also seen growth.

Large & Medium Industries

Visakhapatnam has 72 large and medium industries. They are involved in trades like mining, explosives manufacturing, and power and cement with in investment of Rs.10702 crore and providing employment to over 43000 people. Industrial Development is conspicuous in Visakhapatnam. The Large scale industries like Hindustan Shipyard, Hindustan Petroleum Corporation, Coromandal Fertilizers, Bharat Heavy Plates and Vessels, L.G.Polymers Ltd., Hindustan Zinc Plant and the recent giant Visakhapatnam Steel Plant are all present in the district along with a host of other ancillary industries. The Visakhapatnam Steel Plant is the biggest of them all, with an authorized share capital of INR 74,660 million with a licensed capacity of 2.8 million tons of saleable steel, 3 million tons of pig iron and 832,000 ton of byproducts. The plant is expected to employ some 25,000 people. Outside the urban areas, agro based industries like sugar, jute and rice mills can be found along with brick kilns.

Small Scale Industries

The district has 1448 registered industrial units and 6667 total industrial units. Small scale industries have made a considerable contribution to the state GDP by generating employment opportunities. The district has a large number of engineering units with investments of over INR

700 million. These units employ more than 55,000 people. Other important units are electronics and chemical based and agro based industries.

4.20.2 Education Infrastructure and Utilization

Table 189 Schools with enrolment details Source: Statistical Abstract, Andhra Pradesh - 2011

The literacy rate of Vishakhapatnam in 2011 is 67.70 compared to 59.96 and is slightly higher than the state figure. According to Census 2011 provisional data, the male literacy figure stand at 75.47 per cent, while female literacy was at 69.68 per cent. Vishakhapatnam district have recorded tenth position in comparison to literacy rate in other districts of the State.

Schools	Total Number	No. of Enrollments
Primary Schools	3377	116826
Upper Primary Schools	803	125776
Secondary Schools	685	261703
Higher Secondary Schools	14	15281

Table 190 Education Statistics; Source: Statistical Abstract, Andhra Pradesh – 2011

Educational Institutions	Total Number
ITIs	2
Polytechnics	12
Engineering Colleges	31
Medical/nurses Colleges	2
Pharmacy Colleges	11

As per Census 2001, there were 184,767 people who were graduates and above in Visakhapatnam. It is interesting to note that out of the total population of graduates and above, 65 percent are male. Visakhapatnam accounts for 6.53 percent of graduates in Andhra Pradesh and is ranked third in number of graduates. The gross enrolment ratio is higher in classes I-V at 97.71 percent, followed by 79.85 percent for classes VI–VIII and 6.16 percent for classes VIII – X. All three figures are below the state averages of 100.46 percent, 84.76 percent, and 69.51 percent respectively.

The dropout rates show an increasing trend over classes I-X of 41.44 percent. Greater emphasis will be needed on the quality of education, while simultaneously increasing the number of schools, drawing and retaining good teachers and providing better facilities for students, especially girls.

Visakhapatnam has several engineering and medical colleges offering courses in specialized fields colleges in the district also offer a wide range of courses in the arts, commerce, management, science, law, pharmacy, hotel management and education. There are also 12 polytechnic colleges with a total intake capacity of 3,565 students per annum. The district has the fifth largest number of polytechnic colleges in the state.

4.20.3 VTI's demand across various trades in Vishakhapatnam district

The Government ITIs in the district cater to the skilled manpower needs of the Visakhapatnam steel plant and other industries. Interestingly, it may be noted that the intake of trainees is higher in the electronics and fitter trades. The ITIs impart training in trades like

fitter, welder, dress making, electronics, stenography, computer operator and programming assistant or COPA, radio and television, draftsman electricians, instrument mechanic,etc. New trades are introduced into the ITIs based on demand from industry. All the trades and units are permanently affiliated to the National Council of Vocational Training of Director General of Employment and Training.

Table 191 Different Trades in Government & Private VTIs as per sample study

Government VTI Trades		Private VTI Trades
APPAREL	ELECTRONICS	D/M CIVIL
AUTO MOBILE	FITTER	ELECTRICAL
COE	MECHANIC DIESEL	ELECTRONICS
COPA	MMTM	FITTER
D/M CIVIL	PLUMBER	MECHANIC DIESEL
ELECTRICAL	TURNER	WELDER

The government VTIs sampled for the study offer 13 different trades for training while the private VTIs offer only six trades. The electrical and fitter trades appear to be the two most popular in both government and private VTIs. It was observed that above 80 percent of the seats were occupied in all sampled VTIs for every trade. However, while there seems to be a great deal of interest in vocational courses among the youth, none of the sampled VTIs run women-centric courses.

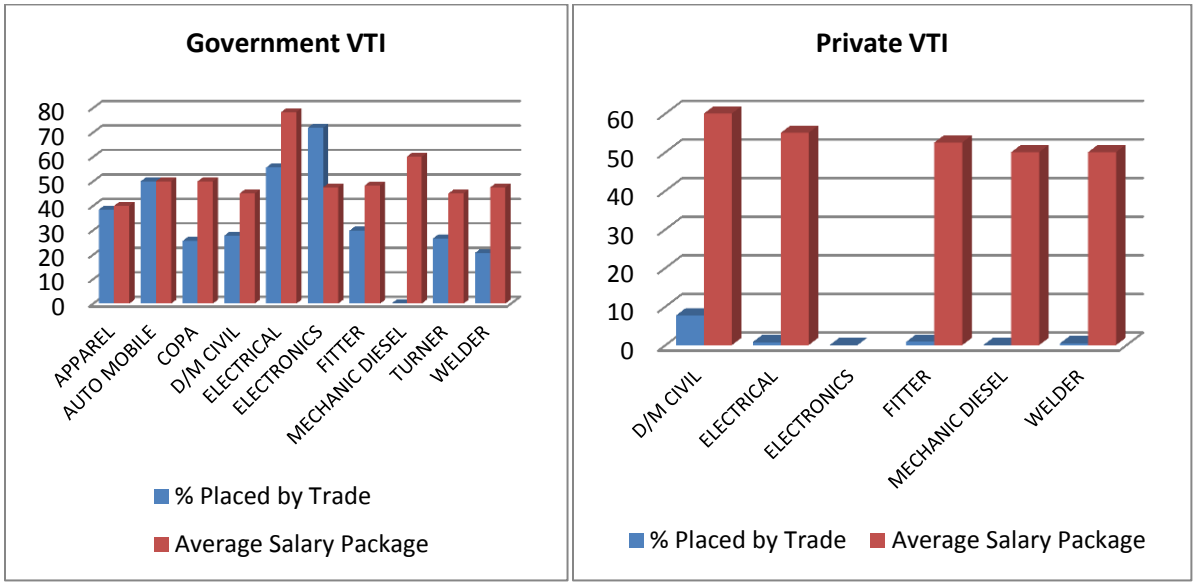
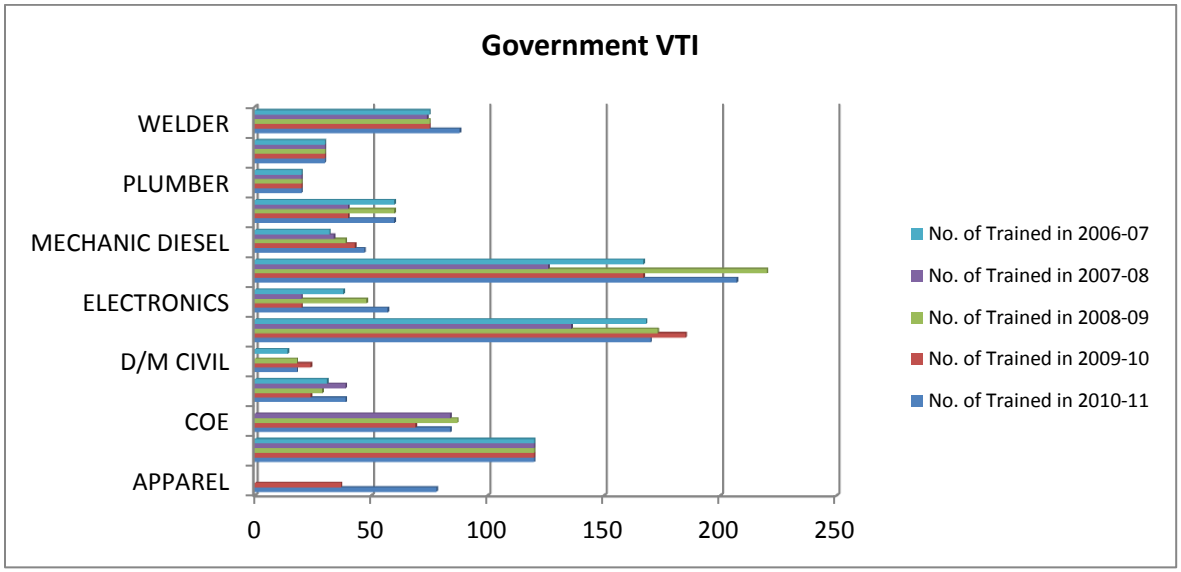


Figure 338 VTIs with placement percentage and average salary across trades, Average salary in '00s

An overview of placement records by trade indicates that the placements for graduates of private VTIs is extremely low across all trades. Placements in government VTIs is better, but no trade has above 60 percent. The data indicates the electrical trade is the highest paid, with trainees getting on average INR7,833 per month. Among the private VTIs, the the D/M civil

trade was the most lucrative, with trainees getting an average of INR6,000 every month. While ,most trainees get placed through campus interviews, some students were recruited after they proactively approached industry. Employment exchanges do not seem to be playing a significant role.



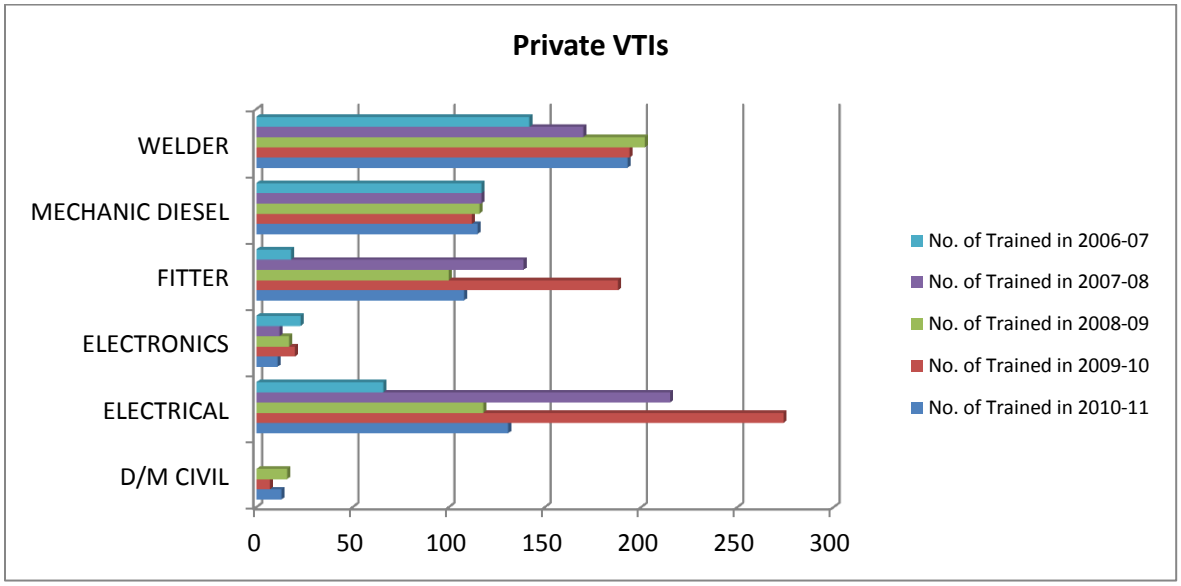


Figure 339 No. of trained over 6 years in different trades of Government & Private VTI

The data on trainee intake across all the trades show a balanced mix in demand. But other than in the fitter trade, government VTIs have not dramatically increased the number of seats. Among private VTIs, the intake of trainees has also gone down over the last year.

Table 192 Approved & Actual staff in VTIs

GOVERNMENT VTI	Positions	Approved	Actual
	Managerial	24	17
	Academic	97	54
	Support	90	87
PRIVATE VTI			
	Managerial	12	12
	Academic	52	52
	Support	9	9

Academic positions at government VTIs are grossly understaffed. Despite this, government VTIs offer more courses than private VTIs even though the numbers of academic staff are roughly the same.

4.20.4 Placement & Absorption Trend

There are four employment exchanges in Visakhapatnam. The number of candidates in the live register during 2009-10 was 1,35046. However, only around 10 candidates were actually placed.

In Vishakhapatnam, the placement of the job seekers is primarily done through the private institutes with direct industrial linkages offering training and development to the trainees. At present, a job-seeker with a degree or diploma registered with an employment exchange is expected to wait for a long time before his or her name is sponsored. This process is faster for job seekers with intermediate level of education.

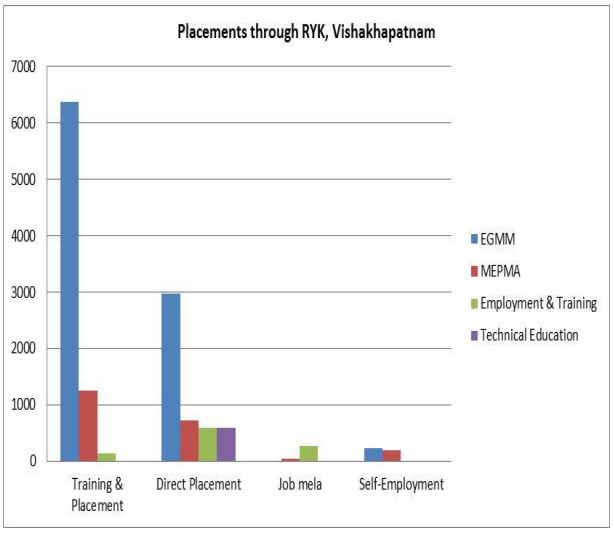


Figure 340 Placements through RYK; Source: RYK state level placements monitoring report, June 2012

4.20.5 Sector wise mapping of industries in Vishakhapatnam

Visakhapatnam is fast becoming as the best centers for investments in Industries and catching up with huge demand of workforce in the various sector. Visakhapatnam, more popularly as the Steel City of Andhra Pradesh, has some of the best production facilities in the country. Today, Visakhapatnam has turned out to be a major Industrial center in the entire South of India resulting to a burgeoning demand for good-quality and technically-skilled manpower.

Industry wise Sector Mapping					
NSDC (High growth sectors)	**Units**	**Employment**	**High**	**Medium**	**Low**
Agriculture & Allied					
Automobile & Auto components					
Food Processing (Food beverages and Tobacco products)	125	9770			
Electronics Hardware	148	4700			
Textiles and Garments	27	8870			

Industry wise Sector Mapping					
IT					
Chemicals and Pharmaceuticals	75	9910			
Tourism, Hospitality and Travel	3851				
Transportation/Logistics/Warehousing and Packaging	10	6324			
Healthcare	118	462			
Education/ Skill Development	2	231			
Banking/ Insurance and Finance	437				
Manufacture of Wooden furniture	135	1466			
Paper and Publication	32	912			
Rubber and Plastics	33	492			
Petroleum	32	2504			
Mining & Quarrying	82	703			
Steel based industry	4	872			
Minerals based industries	138	42025			
Service based industries (Repairs & maintenance: R&D)	57	8052			

Table 193 Sector wise mapping of Industries; Source: DIC

High	Units>200, emp>1000 - all applicable
Medium	Units>100, emp>500 - all applicable
Low	Units>10,emp>30 - all applicable

Sector	No. of Industries Sampled
Chemical & chemical products	2
IT & ITES	2
Machinery, Electricals & Manufacturing	3
Mines, Metals & Minerals	4
Power Generation	1
Retail	1
Service Sector	7
Textile & Handloom	1
Transportation, Logistics, ware housing & packaging	1
Total	22

Across the twenty two sectors represented in the sample, the proportion of skilled workers is the highest, followed by semi-skilled and then minimally skilled workers. Across all nine sectors represented in the sample, there was relatively large worker strength for semi-skilled and minimally-skilled workers in the service sector.

Figure 341 Sector-wise sampled industries

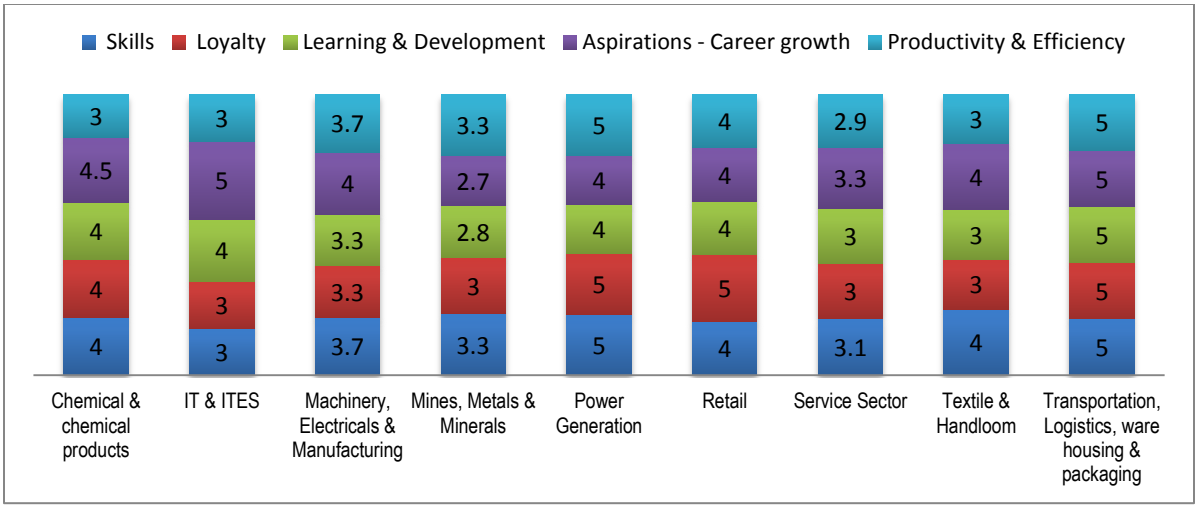


Figure 342 Skill wise expectation of employers, primary survey

When employers were asked to rate their expectation from their workers on a scale of 5, employers from transportation, logistics, warehousing and packaging sectors showed a relatively higher desire for worker characteristics across all the traits. Most of the employers rated their expectations between 3.0 and 5.0 which indicate relatively high level of satisfaction of employers with their employee.

4.20.6 Composition of Workforce

According to the provisional Census 2011 data, the total workforce in Visakhapatnam district is expected to rise by 16% against the 2001 data. Urbanization and industrialization have caused a surge in migration to the city. In Visakhapatnam district, 58.2 percent of the workforce forms part of non-workers category against 34.1 percent for main workers and 7.8 percent for marginal workers. The workforce classification indicates that the majority of main workers are employed in the service sector .There is declining trend observed in the workforce engaged as agricultural laborers and cultivators. Visakhapatnam has also been experiencing tremendous developments in area of IT and hospitality, thanks to the availability of land at lower prices Hence, it is clear service based industries will play a key role in generating employment in the future. However, future employment opportunities will depend on the prospects of the district's workforce.

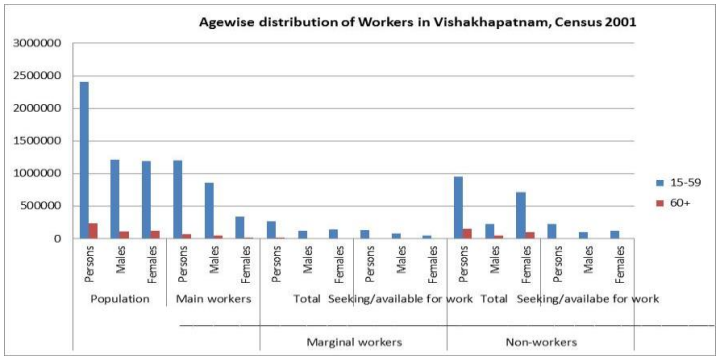


Figure 344 Category wise distribution of main and marginal workers; Source: Census 2001

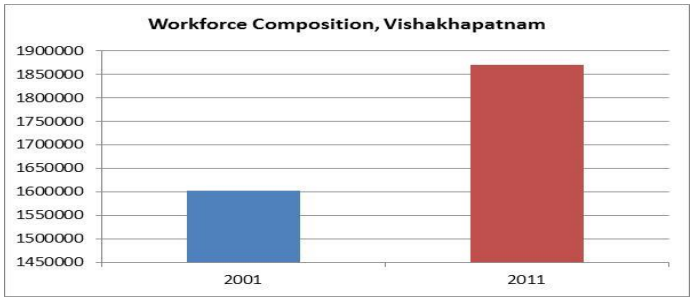


Figure 343 Age wise distributions of workers

A change in population trend, composition and distribution of population in any economically productive activity are closely associated with the demographic structure of the workforce. The workforce participation rate varies according to the stages of economic development across size, age and sex. In Visakhapatnam district, the majority of main workers in Visakhapatnam are estimated to be in the 15-59 years age group. Interestingly, among the non-workers and marginal workers, females in the age group of 15 - 59 outnumber the males. Visakhapatnam district recoded the fourth highest position in the state with when it came to the working population aged 15 - 59 years.

The district is among the industrially developed districts of the State with highest investments in large and medium scale industries. It boasts of a number of big as well as SSI and cottage industries. It has flourishing steel and services based industries. It is forward in terms of trade. The above spread of industries clearly indicates that there is increasing prominence of secondary and tertiary sector with available resources in the district, there is huge potential for growth of steel based industries, food industry, electronics hardware and services based industries in the area of hospitality, tourism and other establishments based on repairs and maintenance. There has been marginal trend observed on account of workforce demand from the emerging sectors like wooden based industry, petroleum, minerals and service based industries.

4.20.7 Projected Workforce Demand

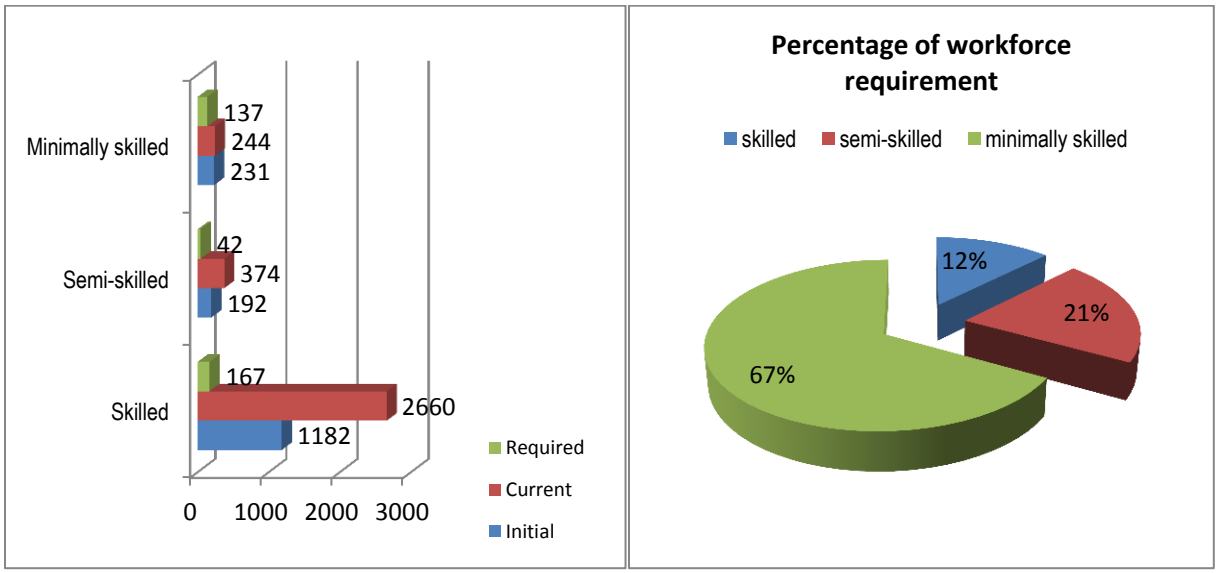


Figure 345 Initial, Current & Future requirement of workforce as per sample study

A total of 22 industries were sampled for the survey to represent 9 major sectors in Vishakhapatnam. The survey looked at the availability of skilled, semi-skilled and minimally skilled workers according to their numbers in the sampled industries at the time of the establishment of those industries. It also examined their present and required strength. The service sector reported an increase in numbers of skilled, semi-skilled, and minimally skilled workers from the time of establishment to the current date. On the other hand, the textile and handloom industry has neither increased nor decreased their overall skilled and semi-skilled

staff strength. The number of vacancies reported by the sampled employers for skilled workers was the highest followed by minimally skilled and semi-skilled workers. The survey shows the number of skilled staff has increased remarkably.

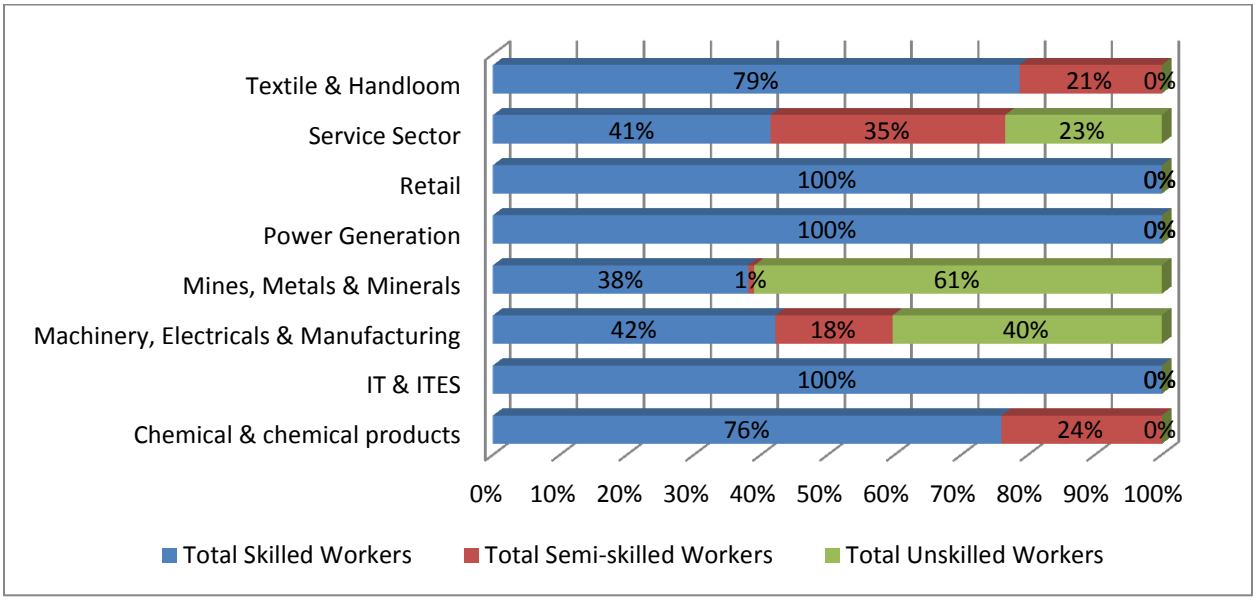


Figure 346 Sector-wise workforce distribution

Across the twenty two sectors represented in the sample, the proportion of skilled workers is the highest, followed by semi-skilled and minimally skilled workers. Across all nine sectors represented in the sample, the service sector employed a relatively large number of semi-skilled and minimally-skilled workers. Through the sample survey, it was observed that finding new workers through employee referrals was the most popular method of recruitment across all the industries. Other methods include going through contractors, VTIs or employment exchanges.

Incremental manpower demand over the years till 2021-22

Visakhapatnam shows a significant increase in the demand for skilled workforce in the construction, real estate, BFSI and hospitality sector. On the other hand, the incremental demand for workers in agriculture and allied sector will be negative. This has prompted a large migration of agricultural workers into other sectors. In terms of absolute numbers, the construction sector will be largest employer over the next few years.

Table 194 Projection of Incremental manpower requirements till 2022 across various Sectors

Incremental	2012-2017			2017-2022		
Industry	**Skilled**	**Semi-Skilled**	**Minimally Skilled**	**Skilled**	**Semi-Skilled**	**Minimally Skilled**
Agriculture & Allied Activities	-2777	-13886	-52768	-5864	-29319	-111411
Mining & Quarrying	13500	7916	14016	13934	10948	14929

Incremental	2012-2017			2017-2022		
Industry	Skilled	Semi-Skilled	Minimally Skilled	Skilled	Semi-Skilled	Minimally Skilled
Construction	91381	109090	91121	99695	106816	159513
Tourism, Travel & Hospitality	125550	-39764	-42122	6302	2836	1891
Transportation, Logistics, Warehousing & Packaging	16743	8529	2843	15497	7895	2632
IT & ITES Sector	15903	1665	303	16728	1751	319
Banking & Financial Services Insurance	38172	6014	2199	31970	14386	9591
Real estate	22969	28049	19802	22051	23626	35281
Other Services	33763	-5975	-7720	9346	4292	2615
Electricity, gas & water supply	150	84	66	150	90	60
Food processing	-2040	-1725	-315	-2040	-1224	-816
Chemicals & Pharmaceuticals*	3480	1891	1589	3480	2088	1392
Coke, refined petroleum and nuclear fuel*	11500	6508	4992	11500	6900	4600
Rubber and plastic products*	-125	-76	-49	-125	-75	-50
Metals & non metallic products*	525	-666	1191	525	315	210
Textile & leather	10224	5639	4585	10224	6134	4090
Wood & Paper products	-984	-602	-382	-984	-590	-394
Total	372357	109180	37286	232389	156870	124450

*Manufacturing Sectors

4.20.8 Skill Gap Analysis

The skill gap analysis was performed by surveying employers. Structured questionnaires were developed that were designed to map the current and the future skill requirements of the industries identified in Visakhapatnam.

The analysis factored in industry linkages with vocational training institutes, employment exchange and with other sources for workforce absorption and retention. It highlights a significant mismatch between industry skill requirements and the skill pool emerging.

Table 195 Representation of incremental skilled/semi-skilled and minimally skilled workforce trend till 2021-22

Incremental Workforce Demand & Supply Gap						
	2012-2017			2017-2022		
Sectors	**Skilled**	**Semi-Skilled**	**Unskilled**	**Skilled**	**Semi-Skilled**	**Unskilled**
Demand	372357	109180	37286	232389	156870	124450
Supply	11482	8269	113650	3517	14647	95418
Gap	360875	100911	-76364	228872	142223	29033

In-depth interviews conducted with senior functionaries indicated the need to enhance the current vocational capacity in the district. Some of the important findings were as follows:

- The current training provided by the government and private institutes meet industry requirements. However, capacity needs to be increased. Focus should also be laid on practical training.
- Scope of self-employment and entrepreneurship is high and awareness about self-employment opportunities needs to be created. Demand for a skilled workforce is likely to increase over next three to five years, keeping in mind the increasing investment pattern of the state. Major employment would be seen in construction, real estate, banking and insurance, fishing and hospitality.

4.20.9 Youth Aspirations

The youth survey study was primarily undertaken through the survey instrument. Structured questionnaires were designed to capture youth aspirations and perceptions under various categories. The study of the perceptions, aspirations, attitudes and expectations of the youth was undertaken in Vishakhapatnam district to understand what the youth think, why they think the way they do and how society responds to their hopes and aspirations. Interviews with 60 people along with focus group discussions were used.

The youth surveyed fell into four categories: employed, self-employed, unemployed and trainees. Out of the youth covered, 71.7% were college educated and the remaining28.3% had completed high school. All the respondents were from registered VTIs. Of the trainees surveyed, 66.7% were in government VTIS and the rest were studying in private ones.

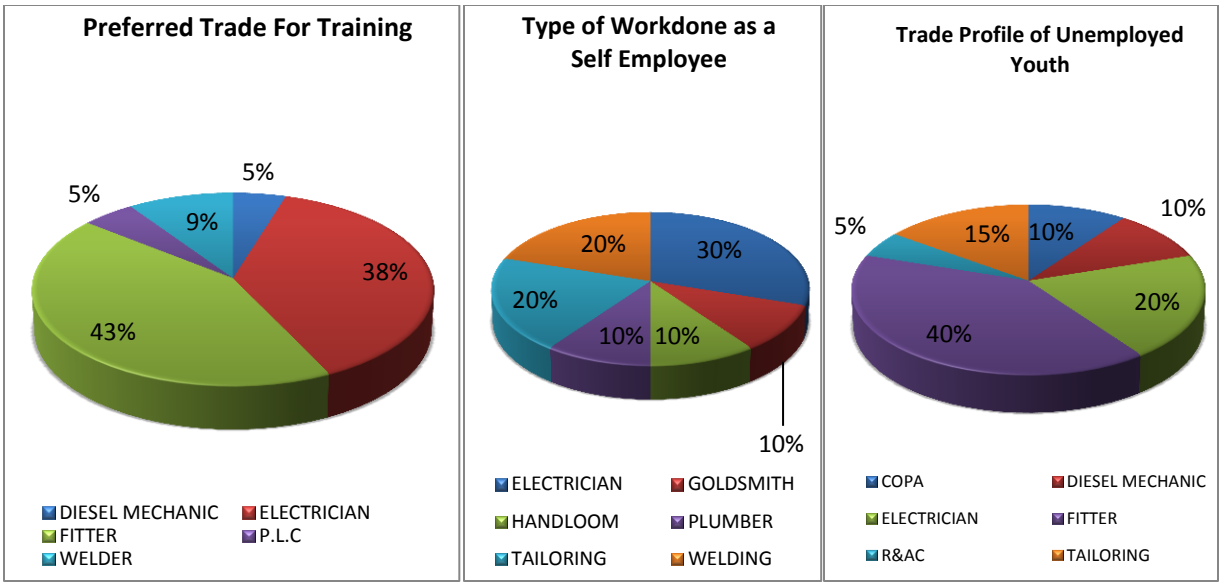


Figure 347 Profile of respondents (trainee, self-employed & unemployed youth) by trade in sample of Vishakhapatnam

The course for the fitter trade appears to be the most popular, with 43 percent opting for it. This was followed by the electrical trade with 38 percent. Among self-employed youth, 30 percent chose to become electricians followed by 20 percent each in tailoring and welding. Among the unemployed, 40 percent had trained to become fitters. Despite its popularity, the fitters trade has not helped many young people find jobs. However, youth trained to be electricians were able to be self-employed.

Parameters considered by District's youth while opting for vocational training

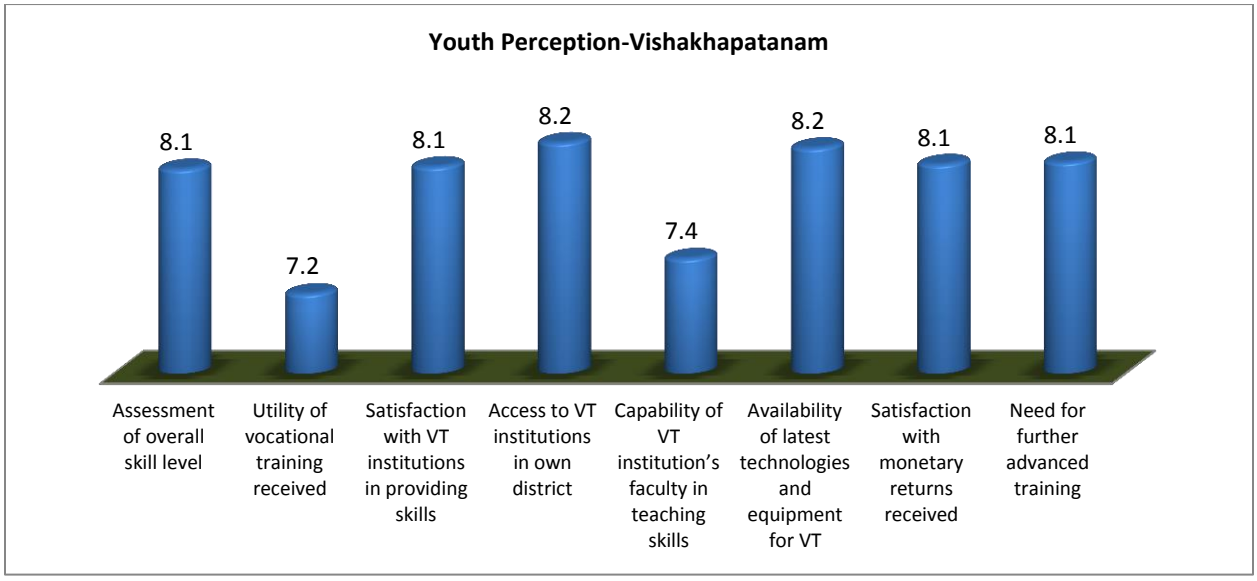


Figure 348 Vishakhapatnam Youth's perception, need and aspirations –Sample Group

In Vishakapatanam, the youth rate existing VTIs facilities at a higher level. They were satisfied with the skills provided in the VTIs and the technology used. They also sought to upgrade their skills. Additionally, many cited access to VTIs as an important factor for them. They appeared satisfied with their current salaries, with 100 percent of those surveyed receiving annual increments.

4.20.10 Recommendations: Skill Development Eco System

The district is witnessing high industrial growth in major infrastructure sectors such as shipping, power, steel and information technology. Major industries from all sectors including Bharat Heavy Plates & Vessels, Hindusthan Zinc Limited, Hindusthan Petroleum Corp. Ltd, Port Trust, Hindusthan Ship Yard, Fishing Harbor, Coramandel Fertilizers, L.G.Polymers, Essar Shipping, Simhadri Project of National Thermal Power Corporation (NTPC) are present in Visakhapatnam. The district is also witnessing migration from nearby areas, resulting in demand for manpower in services sector. This has led to burgeoning demand for technically skilled people. At present, the district lacks in institutes which provides specialized trainings in these sectors. Following are the key growth sectors in the district:

Sectors	Growth Opportunities
Construction	• The construction sector contributed 28 percent to the sector sector DDP in 2009-10. • The district will require approx. 6.5 lakh skilled and semi-skilled incremental manpower till 2021-22. • More industry specific courses are required in the district such as bar bending, masonry, etc.
BFSI & Real estate	• BFSI and real estate sector is expected to contribute significantly (approx. 2.54 lakh incremental manpower demand) to the creation of jobs in skilled segment. • The Banking & financial services sector has witnessed a growth rate (CAGR) of approx. 16.2 percent from 2004-05 till 2009-10. • Trainings are required in new financial products, data entry and insurance sector. Special focus should be on rural banking.
Mining & quarrying	• The sector has witnessed a CAGR of approx. 54 percent from 2004-05 till 2009-10. • Currently no courses are being focused on this sector thus more focus on training is required in this sector.

Figure 349 Key manpower demand sectors in the district

The key stakeholders' contribution in enabling to achieve the target would be as follows:

State: At present, the district lacks the higher educational infrastructure needed to provide quality education to local youth. This has led to students migrating to other districts.

Action Plan:

a) State needs to upgrade the existing infrastructure and also build more capacity by entering into PPP with national/regional training providers.
b) While encouraging private participation in the vocational training, state also to collaborate for required assessments and certification of students through NCVT or SSC.
c) A robust feedback mechanism needs to be developed to obtain necessary inputs for students and industry to ensure market relevance.

Training Partners: Training providers need focus on building training capacity as well as bridging the existing quality gaps in skilling.

Action Plan:

a) Evaluate & update the course content as per industry requirements with focus on placement opportunities

b) Strengthen student mobilization through greater community engagement, particularly in rural areas for sectors such as food processing and textiles.
c) Conduct standardized aptitude tests for all students interested in vocational training to facilitate better course matching.

Industries: The district has the highest manpower supply over the years till 2022. Industry needs to formally engage the workforce and provide them relevant career paths.

Action Plan:

a) Need to ensure the training provided is relevant to the industry requirements through greater collaboration with the training providers.
b) Provide inputs to training providers on curriculum, pedagogy and equipment.
c) Help State in creation of competency standards and build a robust performance evaluation mechanism.
d)

NSDC: NSDC needs to focus in building capacity through funding national/regional training providers. NSDC also needs to support funding student fees through schemes such as skill voucher. Apart from this, other sources of finances such as government assistance should also be provided to students.

4.21 Vizianagram

This chapter highlights the economic base and occupational structure of the district. It identifies the high-impact industries and skills needed to match expected growth.

The latter part of the chapter provides the projected workforce demand and supply in the coming years and the optimization plan for the district.

4.21 Vizianagaram

4.21.1 Vizianagaram District Demographic Profile

Vizianagaram was created by carving out portions of two districts, Srikakulam and Visakhapatnam. Vizianagaram city the largest municipality of Andhra Pradesh in terms of population and is located about 18 km inland from the Bay of Bengal, and 52 km northeast of Visakhapatnam. While the literal meaning of Vizianagaram is the City of Victory, it is also sometimes referred to as the city of education. It is an important business and educational center for north coastal Andhra and the adjoining state of Orissa. For administrative convenience, the district is divided into 2 revenue divisions viz., Vizianagaram and Parvathipuram with 34 revenue mandals in the district. The total area of the district is 6,539 sq.km and it accounts for 2.77% of the total area in Andhra Pradesh. It is pertinent to note that out of the 23 districts in the state, Vizianagaram district is recorded with the lowest population. As per provisional census 2011 data, Vizianagaram accounts for a population of 2.342 million, with a sex ratio of 1,016 females for every 1,000 males. The district has the third highest sex ratio in the state. Vizianagaram's literacy rate is 59.49 percent as of 2011. That is the second lowest figure in all of Andhra Pradesh.

Table 196 Vizianagaram district at a glance

Vizianagram District at a Glance				
Population	**Vizianagram District**		**Andhra Pradesh**	**Remarks**
	Provisional Census 2011	**Census 2001**	**Provisional Census 2011**	
Total Population	2342868	2249254	84665533	
Total Population - Male	1161913	119541	42509881	
Total Population - Female	1180955	1129713	42155652	
Population Growth	4.16%	6.55%	11.10	
Area Sq. Km	6539		275100	
Density of Population (Density/Area sq.Km)	358	344	308	
Proportion of Andhra Pradesh population	2.77%	2.95%		
Decadal growth of population (2001 - 2011)	4.16%	6.55%	11.10%	
Literacy rate	59.49	51.07	67.66	
Male Literacy	69.04	62.37	75.56	
Female Literacy	50.16	39.91	59.74	
Sex ratio (per 1000)	1016	1009	992	
Worker population participation rate		52.2	45.7	Census 2001
Cultivators to total workers		28.3	22.52	Census 2001
Agriculture laborer in workforce		40.2	39.64	Census 2001
Household workers		3.70	4.71	Census 2001
Other industry and services		27.9	33.13	Census 2001

The literacy rate has not made any substantial improvement over the decades. The male literacy rate is 69.04 percent and the female literacy rate is a mere 50.16 percent. The district's urban population, according to the provisional Census 2011 data, was 20.93 percent compared to 18.3 in 2001. The district's per capita income is INR 27,157 compared to the state average of INR 31,847 at constant price 2004-05.

The total workforce participation rate in Vizianagaram is 52.2 percent.. Out of the total working population, the main worker population comprises 40.6 percent of the total population followed by the marginal workers at 11.6 percent and non-workers at 47.8 percent. It is pertinent to note that the proportion of the marginal workers in this district beats the state average of 4.1 percent. Among the main workers in the district, 33.15 percent are engaged as cultivators followed by agricultural laborers at 31.81 percent, household industries at 3.70 percent and other industries at 31.34 percent. The working population trend in the district indicates that agricultural laborers dominate the total working population.

4.21.2 Economic Profile

The district's Gross district domestic product (GDDP) has grown at the growth rate (CAGR) of 5.9 percent from 2004-05 till 2009-10. In 2009-10, tertiary sector contributed approx. 57 percent to the GDDP primarily due to the contribution of trade, hotels and restaurants sector followed by primary sector which contributed approx. 24.1 percent to the district's GDDP.

The chart below shows GDDP of primary, secondary and tertiary sector from 2004-05 till 2009-10.

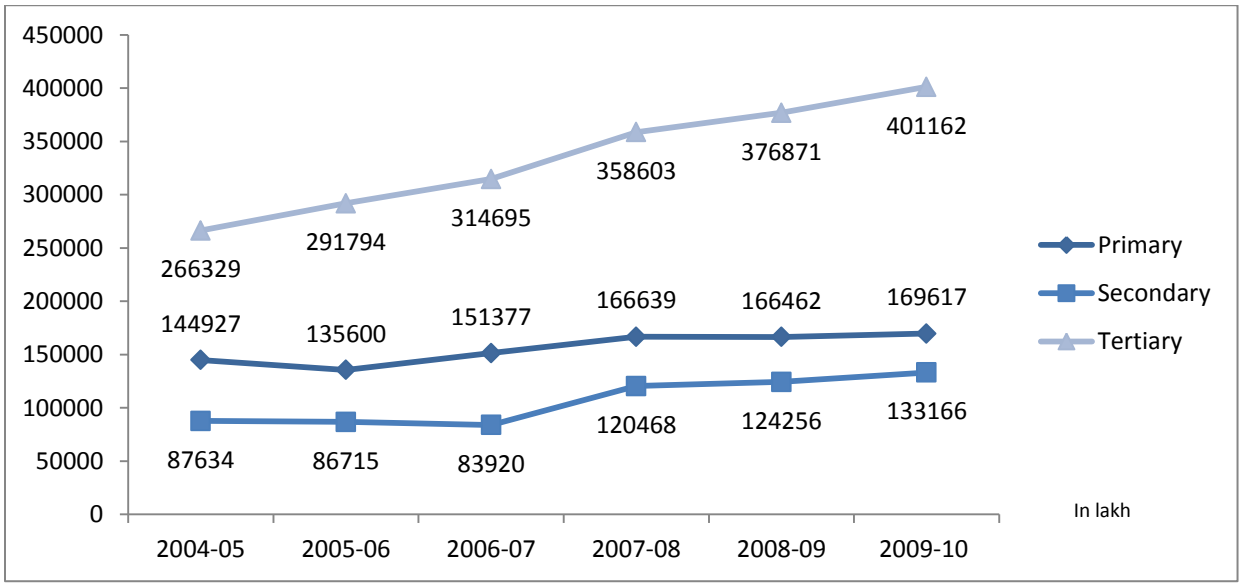


Figure 350 Sectoral contribution to GDDP, Vizianagram

Primary Sector

The primary sector (agriculture, forestry &logging, livestock, fishing and mining & quarrying) contributed approx. 24 percent to the GDDP in 2009-10. Agriculture sector remained as the highest contributor to the primary sector, contributing 57 percent to the primary sector, followed by livestock (27 percent), mining and quarrying (3 percent), forestry and logging (8 percent) and fishing (5 percent) in 2009-10.

The CAGR for primary sector is 2.26 percent from 2004-2005 till 2009-10.

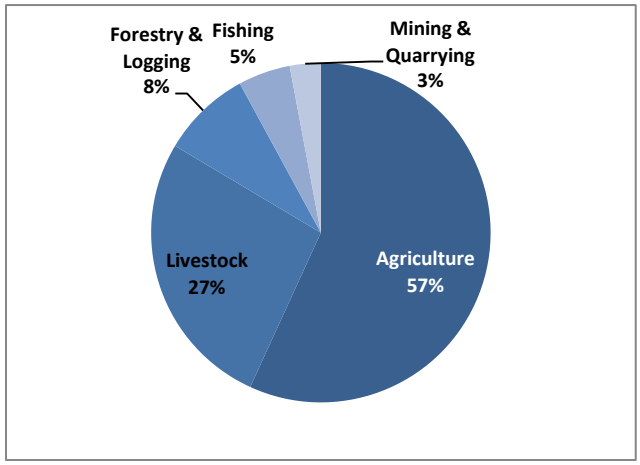


Figure 351 Primary sector contribution to GDDP, 2009-10

Secondary Sector

The contribution of the secondary sector to district GDP in 2009-10 was approximately 18.9 percent. The sector has shown a CAGR of approx.7.2 percent from 2004-05 till 2009-10, primarily due the contribution of construction sector.

The construction sector has shown an impressive CAGR from 2004-05 till 2009-10. However the growth of manufacturing sector has been less with registered manufacturing units growing only by 5.11 percent from 2004-05 till 2009-10.

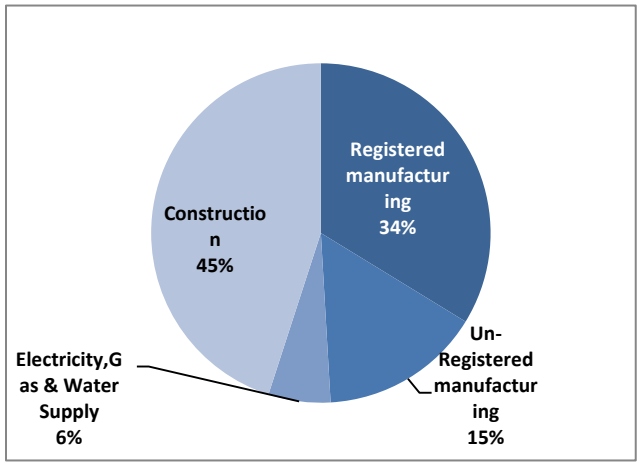


Figure 352 Secondary sector contribution to GDDP, 2009-10

Tertiary Sector

The contribution of the tertiary sector has been significant to the district's economy over the years. In the year 2009-10, the contribution of the tertiary sector was approx. 56 percent to the district's GDDP. The sector has shown the highest CAGR among the three sectors of 7.07 percent from 2004-05 till 2009-10, primarily due the trade, hotels and restaurants sector.

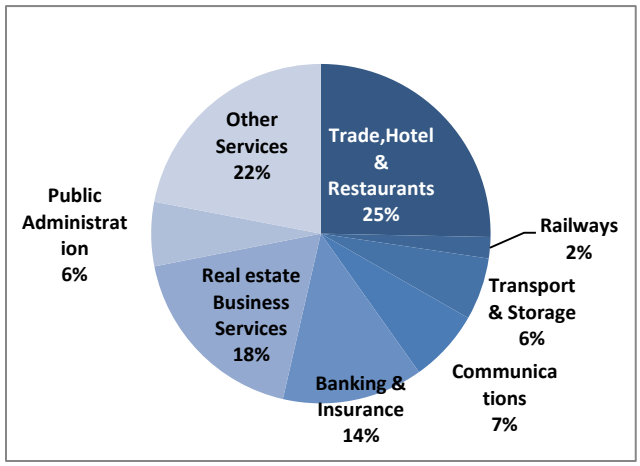


Figure 353 Tertiary sector contribution to GDDP, 2009-10

Industry Mapping

Vizianagaram' s economy is predominantly agricultural. Industrial development in the district has generally come from agro-based and

textiles-based enterprises. Industry in Vizianagaram provides a considerable contribution of 2.02% to the state GDP at constant prices from 2004-05 to 2009-10.

Vizianagaram' s industry is dominated by the agro sector. Much of this has come from the establishment of jute mills at Nellimarla, Vantithadi Agrahram and Bobbili, Salur and Kothavalasa. The other key industry is mineral resources. High quality manganese is found in Cheepurupalli, Merakamudidam and Garividi mandals. Manganese and Kankar Limestone occur in Garividi and Merakamudidam mandals. Besides these, quartz can be found in Cheepurupalli Mandal. Finally, the district has four industrial areas with of total of 509.88 hectare land developed.

Large & Medium Industries

There are 29 large and medium scale industries established with an investment of INR 13.774 billion. They provide employment to 22,822 people. These industries are primarily engaged in the manufacture of jute twine, ferro alloys, sugar, cement, pharmaceuticals, sponge, iron, and food products.

Small Scale Industries

There are 3,494 small scale units registered with industries department. They have an investment of INR1.149 billion and provided employment to 28,629 people up to 2006. These SSI units largely consist of general engineering enterprises, motor workshops, groundnut oil mills, rolling mills, RCC Spun Pipes, Saw Mills, aluminum utensils makers, and workshops making bodies for buses, trucks and cycle rickshaws.

4.21.3 Education Infrastructure and Utilization

Table 197 Education Statistics; Source: Statistical Abstract, Andhra Pradesh – 2011

Vizianagaram has the second lowest literacy rate in the state. The district also has the poorest school infrastructure in the state and too few colleges.

Education is high on the agenda in Vizianagaram because of the low literacy rate and there is a dire necessity to sensitize people about the importance of education.

Schools	Total Number	No. of Enrollments
Primary Schools	2517	156333
Upper Primary Schools	453	63029
Secondary Schools	440	141552
Higher Secondary Schools	7	4028

Table 198 Education Statistics; Source: Statistical Abstract, Andhra Pradesh – 2011

As per the Census 2001, the total number of graduates and above in Vizianagaram district is 51,926, giving it the fourth lowest ranking in the state. It is interesting to note that out of the total population of graduates and above, 78 percent were male. Graduates from the district

Educational Institutions	Total Number
ITIs	11
Polytechnics	13
Engineering Colleges	14
Medical/nurses Colleges	1
Pharmacy Colleges	7

make up just 1.92 percent of Andhra Pradesh's total.

The gross enrolment ratio for classes I-V is 96.93 percent, followed by 76.94 percent in classes VI – VIII and 63.36 percent in classes VIII – X. In contrast, the state averages for gross enrollment ratio are 100.46 percent, 84.76 percent and 69.51 percent, respectively. The dropout rate shows an increasing trend of 47.08 percent over classes I-X classes. A greater emphasis is needed on quality of education as well as increasing the number of schools, incentives to best teachers, strength of teachers and better facilities for students - particularly girls is of utmost importance.

For technical education, there are a total 14 engineering colleges, out of which only one is a government college. The rest are private engineering colleges. These colleges offer a variety of courses and have a combined intake capacity of approximately 3432 students per year. Major courses offered include, electronics and telecom engineering, computer science and engineering, electrical and electronics engineering, mechanical engineering, and instrumentation engineering. There are also 13 polytechnic colleges with total intake capacity of 3520 students per annum.

4.21.4 VTI's demand across various trades in Vizianagaram district

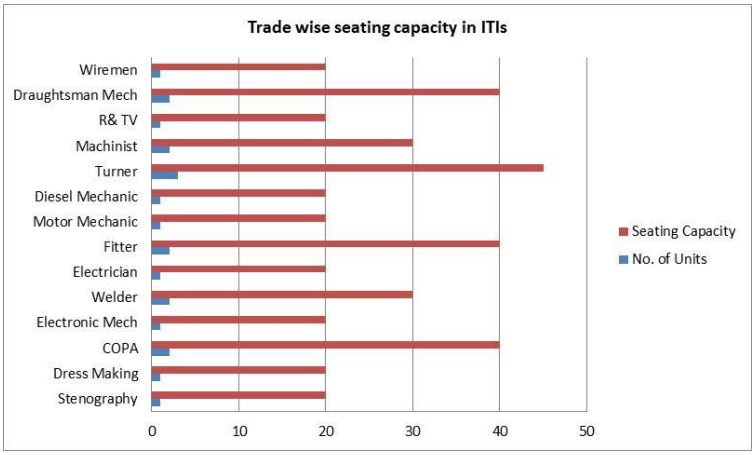


Figure 354 Trade wise seating capacity in ITIs

There are 11 vocational training institutes in the district. Three of these are government ITIs and the rest are ITCs. The overall intake of all ITIs and ITCs is around 2,372 students per annum. These institutes impart training in both technical and non-technical trades like dress making, electronics, stenography, fitter, turner, welder, electrician, mechanics, and COPA. New trades are introduced based on industry demand. Courses currently in demand include those for COPA, fitter, turner and draughtsman and mechanic. All the trades and units under government ITIs are permanently affiliated to the National Council of Vocational Training of Director General of Employment and Training.

Table 199 Courses offered in government and private VTIs(sample), Vizianagaram

Government VTI Trades	Private VTI Trades
COE	DM Civil
COPA	Electrical
Dress Making	Fitter
Electrical	
Fitter	

Instrument Mechanic	

The government VTIs sampled for the study offer training in six different trades while the private VTIs offer courses in three trades. Despite this, private VTIs offer have five times more seats than government VTIs. The COE trade appears to be the most popular in government VTIs. In private VTIs the course for electricians is the most popular followed by the course for fitters. Apart from the dress making course, seats in all other courses in Government VTIs were fully occupied.

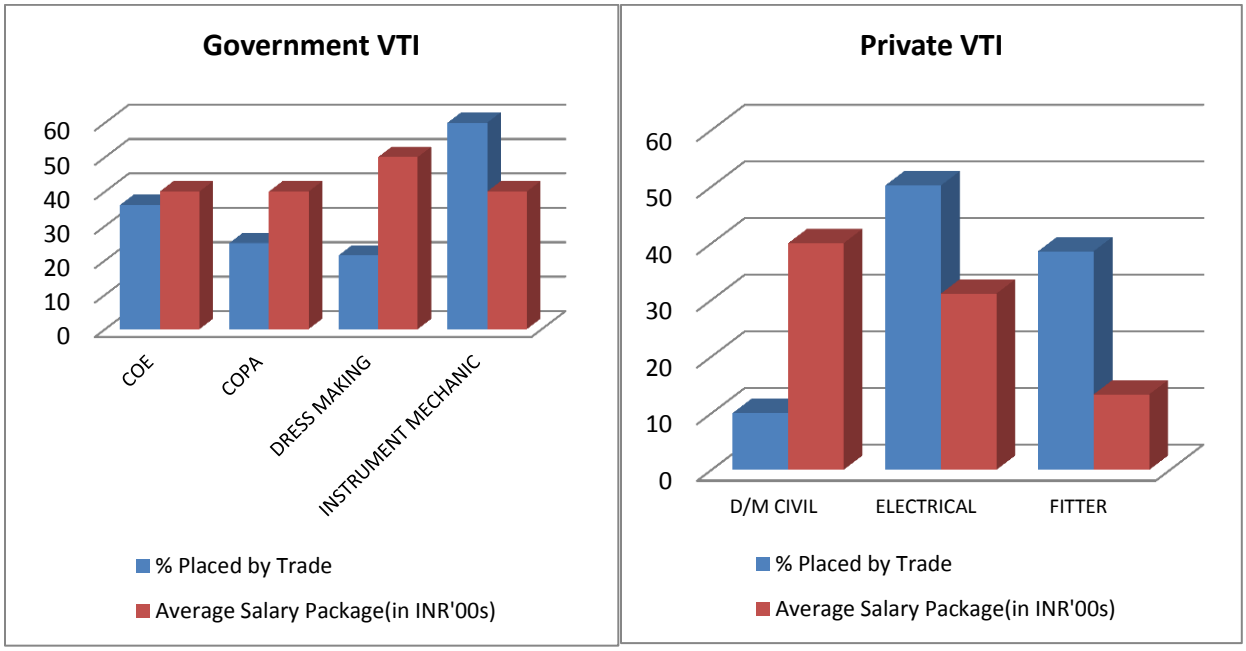
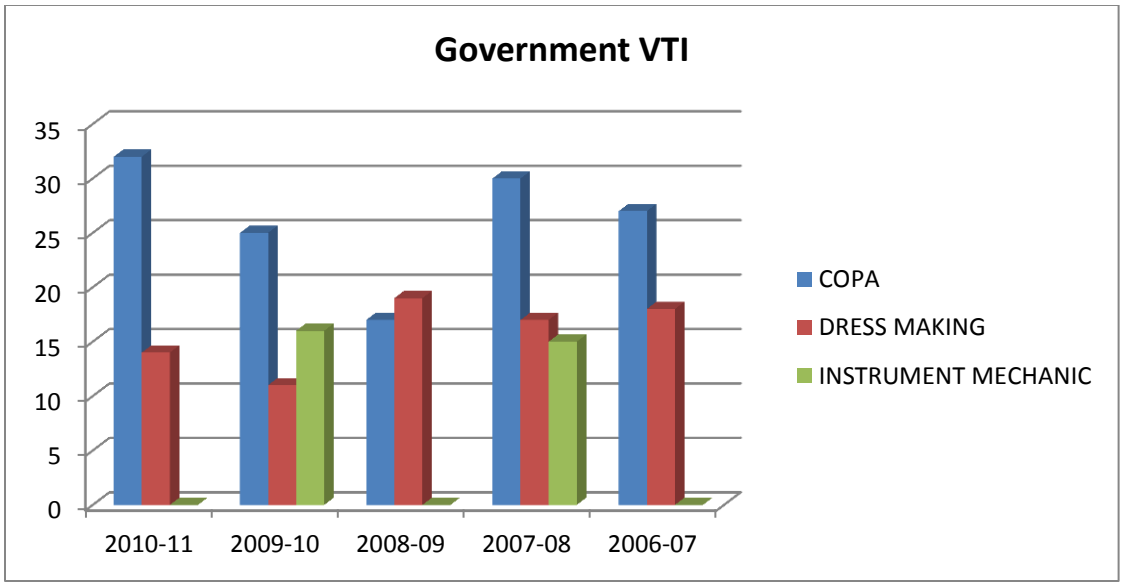


Figure 355 Courses offered placements in VTIs and average salary offered

Records show poor placements for the COPA and dress making trades in government VTIs. On the other hand, the instrument mechanic and COE trades have better placement prospects. In Private VTIs, placements are most likely for trainees from the electrical and fitter trades. The least number of placements was for trainees in the D/M civil trade, though jobs in the trade were also high paying at about INR 4,000 per month. Similarly, while fewer dress making trainees from government VTIs got jobs, those that did enjoyed higher average salaries of about INR 5,000. Also, the placement salary for the fitter trade is very low at INR1333. Trainees from both government and private VTIs who proactively approach industry appear to enjoy better job prospects. While students can hope to get placed through campus interviews or by approaching industry, Vizianagaram employment exchange does not seem to be playing any role in placements.



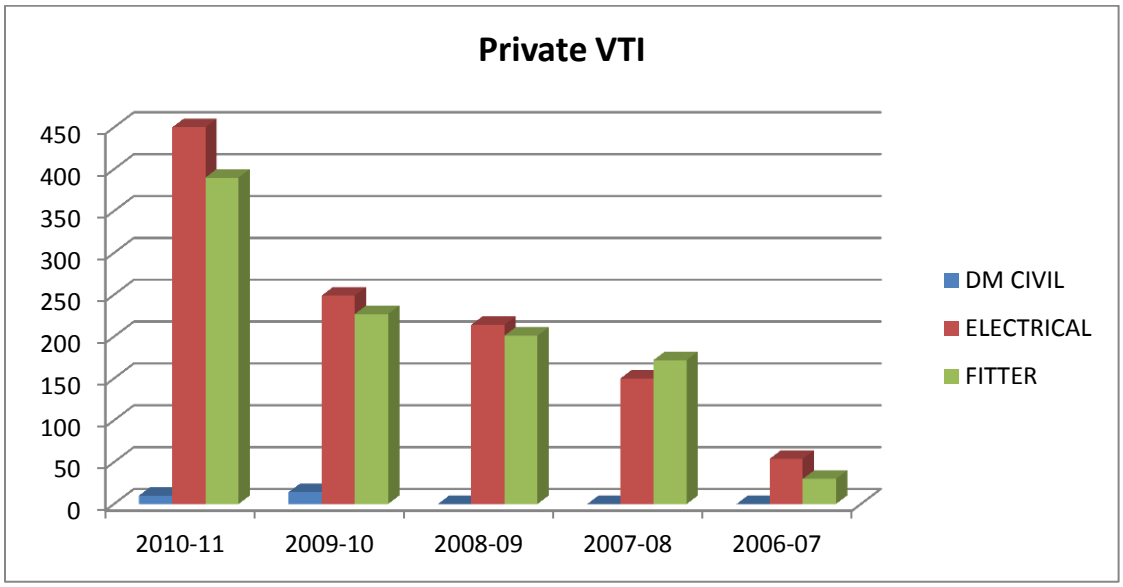


Figure 356 Number of seats occupied over the past years in Government ITIs

Vizianagaram's VTIs also suffer from understaffing. Half or more of the academic positions at both government and private VTIs were vacant at the time of the study.

Table 200 Actual & Approved staff in VTIs

GOVERNMENT VTI	Positions	Approved	Actual
	Managerial	4	4
	Academic	12	6
	Support	3	3
PRIVATE VTI			
	Positions	Approved	Actual
	Managerial	40	30
	Academic	105	47
	Support	28	13

4.21.5 Placement & Absorption Trends

Trainees from VTIs can also look to get placed via the employment exchange or the Rajiv Yuva Kiranalu mission. The placement of the candidates seeking for job opportunities available within and outside district is done either through registering with the employment exchange, or through Rajiv Yuva Kiranalu mission with a focus on offering placements to the educated youth and unemployed youth in rural and urban areas of the district. A large number of the candidates are absorbed by private institutes with direct industrial linkages offering training and development. . Separately, the Job Mela organized at the district level as a part of the ongoing Rajiv Yuva Kiranalu, has recorded very few placements.

There is only one employment exchange in Vizianagaram. The number of candidates in its live register during 2009-10 was 61,818. But only around 10 candidates actually got jobs through the exchange.

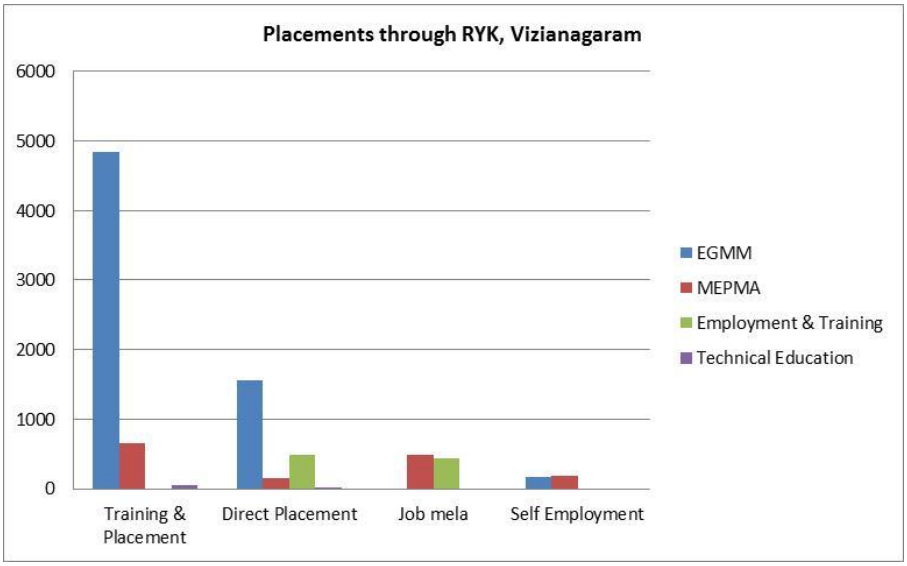


Figure 357 Placements through RYK; Source: RYK state level placements monitoring report, June 2012

4.21.6 Sector wise mapping of industries in Vizianagaram

Industry wise Sector Mapping					
NSDC (High growth sectors)	**Units**	**Employment**	**High**	**Medium**	**Low**
Agriculture and Allied	1	161			
Automobile & Auto components	4	49			
Food Processing (Food beverages and Tobacco products)	196	2857			
Electronics Hardware	3	284			
Textiles and Garments	20	13470			
IT					
Chemicals and Pharmaceuticals	7	1081			
Tourism, Hospitality and Travel	3183				

Industry wise Sector Mapping						
Transportation/Logistics/Warehousing and Packaging						
Healthcare	85	184				
Education/ Skill Development	19	223				
Banking/ Insurance and Finance	173					
Manufacture of Wooden furniture	79	546				
Paper and Publication	7	145				
Energy based industry	2	1200				
Minerals based industries	118	2725				
Service based industries (Repairs & maintenance: R&D)	14	838				

High	Units>200, emp>1000 - all applicable
Medium	Units>100, emp>500 - all applicable
Low	Units>10,emp>30 - all applicable

Table 201 Sector wise mapping of Industries; Source: DIC

Industry is fast becoming a major source of growth in Vizianagaram of the district and provides considerable contribution towards the GDDP. Trends indicate the food and mineral based sectors will be the prime movers of development in the district in the near future and would provide significant employment opportunities across the skilled, semi-skilled and minimally skilled categories.

Vizianagaram is predominantly agricultural and there is a huge scope for establishing agro food based industries, textiles, energy, and minerals based industries. There has been a marginal trend observed on account of workforce demand from emerging sectors like the wood industry, services, and paper printing. Some of the leading players in this district are M/s Ferro Alloys Corporation Ltd., M/s Maa Mahamaya Industries Ltd., Ralco Steels Pvt Ltd., Kyori Power Pvt. Ltd., and Everest Ferro Alloys Pvt. Ltd.

4.21.7 Composition of workforce

According to the Provisional Census 2011 data, the total workforce in Vizianagaram district is expected to rise by 6.5% against the 2001 data. It is pertinent to note that the total workforce participation rate in Vizianagaram district is 52.2 percent. The workforce participation rate in Vizianagaram is the highest in the state. Both the male and female participation rates in Vizianagaram are higher than the state average. Out of the total working population, the main worker population comprises of 40.6 percent of the total population followed by the marginal workers at 11.6 percent and non-workers at 47.8 percent. It is pertinent to note that the proportion of the marginal workers in this district is higher than the state figure by 4.1 percentage points.

Among main workers in the district, 33.15 percent are cultivators, followed by 31.81 percent who are agricultural laborers and 3.7 percent who work in household industries. Other industries account for 31.34 percent of the workforce. However, among the marginal population, 69.21 percent are agricultural laborers. The figures indicate that the working population in the district is dominated by cultivators and agricultural laborers. It is also important to note that the proportion of marginal workers in this district is higher than the state figure (1.7%).

In Vizianagaram district, the workforce participation rate for both males and female has shown a small increase. However, there has been a decline in the proportion of the main workers with a corresponding increase in the proportion of the marginal workers.

In Vizianagaram, most of those who fall into the main workers category are in the age group of 15 - 59 years. Interestingly, among the non-workers and marginal workers, females in the age group of 15-59 outnumber males. Despite this, the working population in the 15-59 years age group is relatively smaller than in other districts in the state.

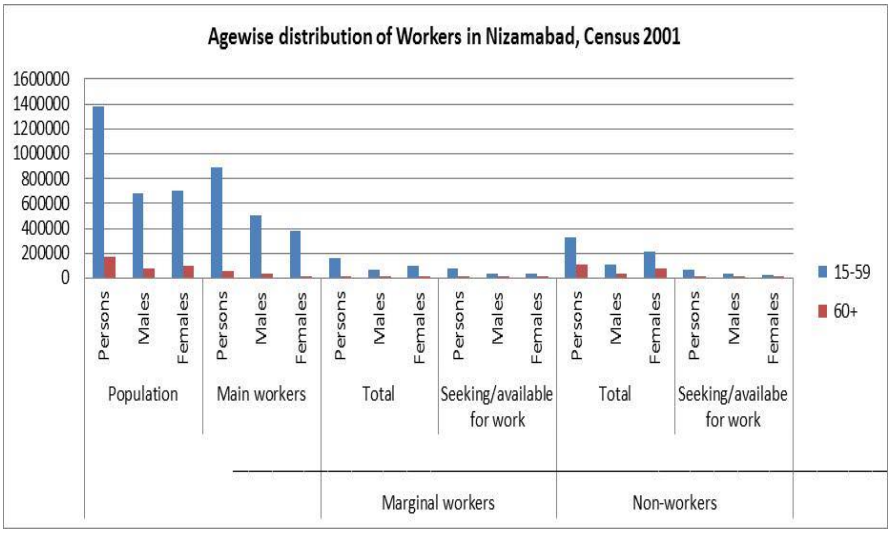


Figure 358 Age wise distribution of workers

4.21.8 Projected Workforce Demand

This section of the report assesses the projected workforce demand by mapping the current and the projected investment patterns across sectors and their contribution to overall growth.

As indicated in the table below, the sectors with high incremental workforce demand will be construction, wood, paper & products sector, textile industries, hospitality, and manufacturing industries.

Table 202 Projected incremental workforce demand across all sector by 2022 in Vizianagaram District

Incremental	2012-2017			2017-2022		
Industry	Skilled	Semi-Skilled	Minimally Skilled	Skilled	Semi-Skilled	Minimally Skilled
Agriculture & Allied Activities	-288	-1442	-5481	-3047	-15233	-57886
Mining & Quarrying	101	-117	76	-25	-20	-27
Construction	19613	23711	18089	20449	21910	32719
Tourism, Travel & Hospitality	34944	-5816	-7371	10091	4541	3027
Transportation, Logistics, Warehousing & Packaging	2704	1377	459	2626	1338	446
IT & ITES Sector	9586	1004	183	10155	1063	194
Banking & Financial Services Insurance	11768	1416	315	9085	4088	2726
Real estate	1790	2542	-208	788	845	1261
Other Services	10060	-4772	-4718	-1388	-623	-421
Electricity, gas & water supply	18	0	18	18	11	7
Food processing	2096	1123	974	2096	1258	839
Chemicals & Pharmaceuticals*	1941	1078	863	1941	1165	777
Coke, refined petroleum and nuclear fuel*	168	95	73	168	101	67
Rubber and plastic products*	28	16	12	28	17	11
Metals & non metallic products*	9804	5552	4252	9804	5882	3922
Textile & leather	10090	5126	4964	10090	6054	4036
Wood & Paper products	14415	8234	6181	14415	8649	5766
Total	128837	39126	18679	87294	41044	-2538

4.21.9 Skill Gap Analysis

The skill gap analysis was performed by conducting a survey. A structured questionnaire was designed to map current and the future skill requirements of the industries identified in Vizianagram district. The analysis factored industry linkages with vocational training institutes, employment exchange, and with other sources for workforce absorption and retention.

Table 203 Incremental Skill Gap across workforce skilled, semi-skilled and minimally skilled

Incremental workforce Demand & Supply Gap						
	2012-2017			2017-2022		
	Skilled	Semi-Skilled	Unskilled	Skilled	Semi-Skilled	Unskilled
Demand	128837	39126	18679	87294	41044	-2538
Supply	8260	7807	128332	4009	13054	122952
Gap	120578	31319	-109652	83285	27990	-125490

Overall, the supply of minimally skilled skilled labor exceeds demand, but the supply of skilled and semi-skilled manpower remains low. In-depth interviews conducted with senior functionaries of industry associations, indicated that the need for semi-skilled manpower was more pronounced. Some of the important findings were as follows:

Industry felt there needed to be greater awareness about vocational courses and that these courses should help meet their requirements. Demand for skilled workforce would be increasing over next three to five years because of rising investment in Andhra Pradesh. Major employment opportunities could arise in construction, automobiles and in agriculture and allied services.

4.21.10 Youth Aspirations

The study of the perceptions and aspirations of Vizianagaram' s youth was undertaken by conducting interviews with 61 respondents and holding a focused group discussion.

The objective of the youth survey was primarily to understand the aspirations of the youth, and map them against their attitudes towards taking up sustainable livelihoods. In-depth interactions were held with respondents across the various categories of youth to provide deep insight and understanding.

The respondents came from across the categories employed, self-employed, unemployed and trainees (as shown in the table above). Out of the participants in the study, 27.9% were college educated and 72.1% had completed high school. All the respondents were from registered VTIs and those who were trainees were from private VTIs, only.

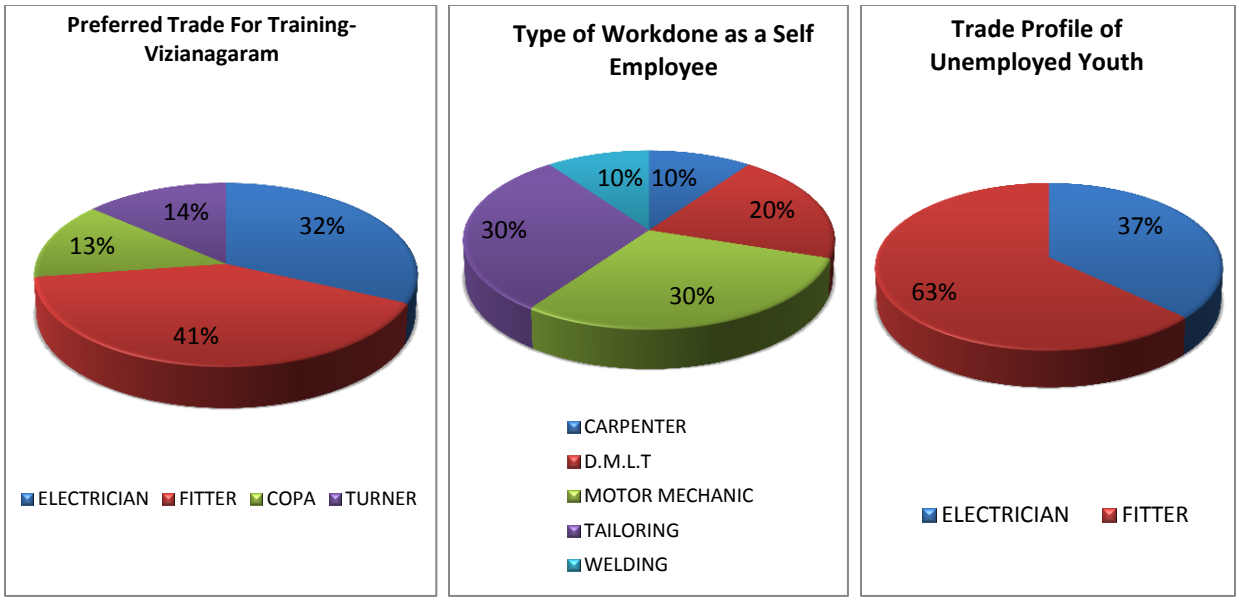


Figure 359 Profile of respondents (trainee, self-employed & unemployed youth) by trade in sample of Vizianagaram

Training for the fitter trade appeared to be the most popular, with 41 percent opting for it. This was followed by the electrical trade with 32 percent. But despite the popularity of both these trades, they also represented the trades showing the greatest rates of unemployment. Those training to be motor mechanics, tailors, Carpenters and welders preferred self-employment.

Parameters considered by District's youth while opting for vocational training

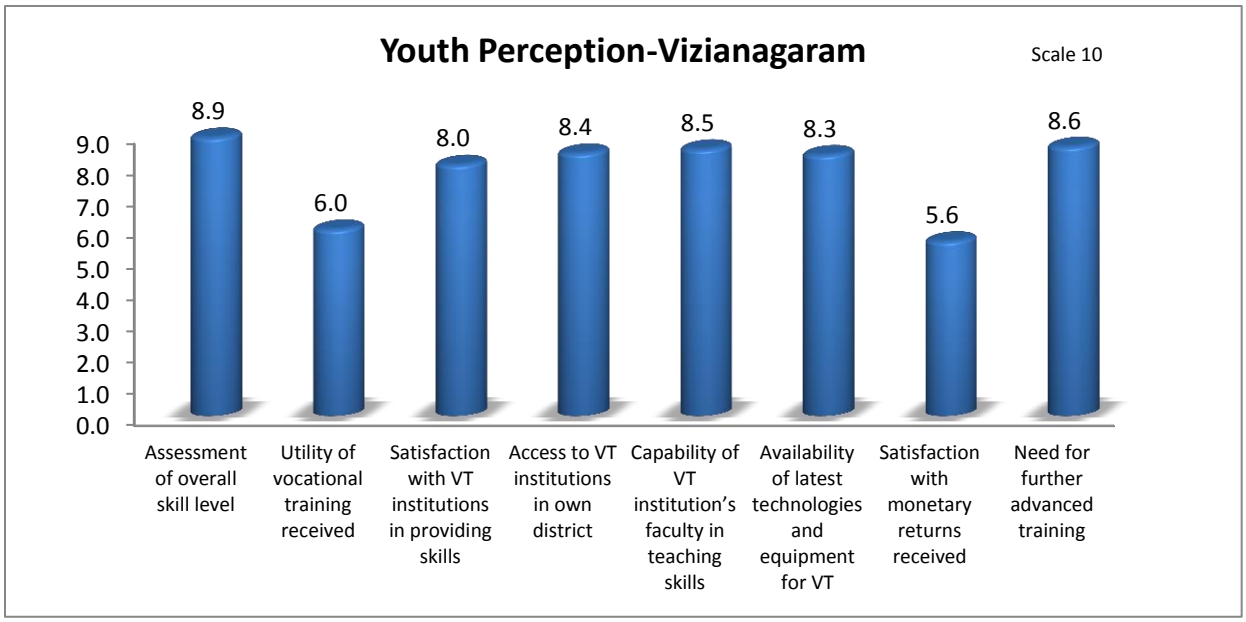


Figure 360 Vizianagaram Youth's perception, need and aspirations –Sample Group

Although, respondents rated the existing VTIs facilities well, they did not find much value in the taking vocational courses. When it came to satisfaction with monetary returns and the utility of vocational training, their ratings fell.

The expectation in terms of salary was about INR4100, which is higher than current salaries. Although, 90 percent of the respondents received annual increments, 95 percent were not satisfied with their current salary levels.

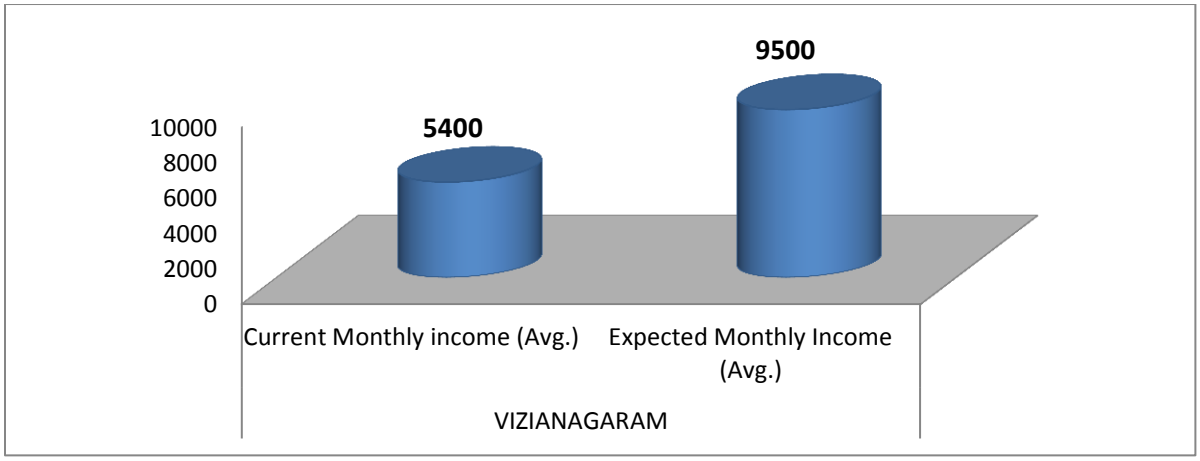


Figure 361 Income current and expected – sample group Vizianagaram

4.22.11 Recommendations: Skill Development Eco-system

The optimization plan for the district should focus on two key issues: extremely low level of literacy rate and manpower movement from agriculture to other formal sectors. There is also a need for employers and training providers to come together in order to offer customized courses requires by the industry. Training providers also need to focus on quality of the curriculum. There is a huge potential to offer entrepreneurship courses in food and agro based industries. Following are the key growth sectors in the district with high incremental manpower demand:

Sectors	Growth Opportunities
Construction	• The construction sector is the highest contributor to the economy (45 percent) in secondary sector in 2009-10. • The district will require approx.1.3 lakh incremental manpower till 2021-22. • More industry specific courses are required in the district such as bar bending, masonry, etc.
Wood & paper products	• In terms of anticipated employment, the district will witness second highest incremental demand in wood & wood products industry. • The demand of skilled, semi-skilled and minimally skilled manpower will be ~57,600 people by 2021-22. • Currently, there are no training interventions in this sector.
Services Sector	• Sectors such banking & insurance, IT/ITES, transportation & logistics, food processing will also witness incremental demand of skilled manpower till 2021.

Figure 362 Key manpower demand sectors in the district

The key stakeholders' contribution to achieve this target would be as follows:

State:

Action Plan:

a. Major focus of the State should be encouraging courses which target youth with low educational qualifications and provide them with required certifications to enable them to get absorbed in formal sector.
b. Since large population will still be employed in unorganized sector. State will have to collaborate with local bodies such NGOs, to reach out workers to spread awareness about the upcoming opportunities in formal sector and benefits of vocational training.

Training Partners:

Action Plan:

a. Training partners need to collaborate with local NGOs to mobilize students for vocational courses. A large number of youth will be shifting from agriculture sector to organized sectors such as retail and hospitality.
b. Offer marketing and designing courses to the workers employed in wood products and textiles.

Industries:

Action Plan:

a. Engage in placement campaigns by the training institutions; assist in expectation settings of new entrants in the labour market.
b. Tie up with the state and training partners to create assessments for recognition of prior learning. This is an important step to ensure cross functional mobility of the workers from unorganized to formal sector.

NSDC:

Action Plan:

Promoting partnerships with skill development players, including private sector with focus on the following sectors:

- Construction
- Wood & wood products
- Textile & leather
- Services sector

4.22 Warangal

The subsequent section highlights the economic base of Warangal and its occupational structure. It identifies the high impact industries and skills needed to match the expected growth.

The latter section presents the projected workforce demand and supply in the coming years and the optimization plan for the district.

4.22 Warangal

4.22.1 Warangal District Demographic Profile

Table 204 Warangal district at a glance

Warangal at a Glance				
Population	**Warangal District**		**Andhra Pradesh**	**Remarks**
	Provisional Census 2011	**Census 2001**	**Provisional Census 2011**	
Total Population	3522644	3246004	84665533	
Total Population - Male	1766257	1644895	42509881	
Total Population - Female	1756387	1601109	42155652	
Population Growth	15.15	8.52	11.10	
Area Sq. Km	12846		275100	
Density of Population (Density/Area sq.Km)	274	253	308	
Proportion of Andhra Pradesh population	4.16%	4.26%		
Decadal growth of population (2001 - 2011)	15.15%	8.52%	11.10%	
Literacy rate	66.16	57.13	67.66	
Male Literacy	75.91	68.88	75.56	
Female Literacy	56.45	45.09	59.74	
Sex ratio (per 1000)	994	973	992	
Worker population participation rate	-	49	45.7	Census 2001
Cultivators to total workers	-	25.3	22.52	Census 2001
Agriculture laborer in workforce	-	33.4	39.64	Census 2001
Household workers	-	12.60	4.71	Census 2001
Other industry and services	-	28.7	33.13	Census 2001

Warangal is the fourth largest city in Andhra Pradesh and is one of the 10 districts of Telangana region. The topography of the district consists of isolated hills, rain fed tanks, lakes, and shrubby forests. The river Godavari forms the north eastern border of the district, but is not yet tapped for irrigation.

As per provisional Census 2011 data, Warangal accounts for a population of 35.22 lakhs with a sex ratio of 994 females per 1,000 males compared to the 2001 Census figure of 973 females. The total area of the district is 12,846 sq.km and accounts for 4.16 percent of the total area in Andhra Pradesh. Its human development index (HDI) of 0.514 lower than the state figure. Also, the district's per capita income is INR 27,291 compared to the state average of INR 31,847 at constant prices 2004-05. On the other hand, Warangal's urban population has grown to 28.34 percent of the total population in 2011 as compared to 19.20 percent in 2001. Looking at the existing trends, the district is urbanization and expanding growth opportunities.

Warangal's literacy rate in 2011 was 66.16 percent, ranking it eleventh in the state. In 2001, the literacy rate was 57.13 percent. Gender wise, around 75.91 percent of males and 56.45 percent of females are literates.

Warangal's total workforce participation rate is 49 percent. The total male working population is 54.5 percent against the female working population of 41.8 percent. It is pertinent to note that the proportion of the female working population in Warangal district is 6.9 percentage points is higher than the state figure.

Out of the total working population, the main worker population comprises of 39.4 percent of the total population, followed by marginal workers at 8.9 percent and non-workers as 51.7 percent). Taking the main workers population, we find that 34.48 percent are cultivators, followed by 30.50 percent who are agricultural laborers, 29.98 percent who work in other industries, and 5.04 percent who are engaged in household industries.

4.22.2 Economic Profile

The district's Gross district domestic product (GDDP) has grown at the growth rate (CAGR) of ~6.5 percent from 2004-05 till 2009-10. In 2009-10, tertiary sector contributed ~54.6 percent to the GDDP primarily due to the contribution of trade, hotels and restaurants sector followed by primary sector which contributed ~26 percent to the district's GDDP.

The chart below indicated primary, secondary and tertiary sector contribution to GDDP from 2004-05 till 2009-10.

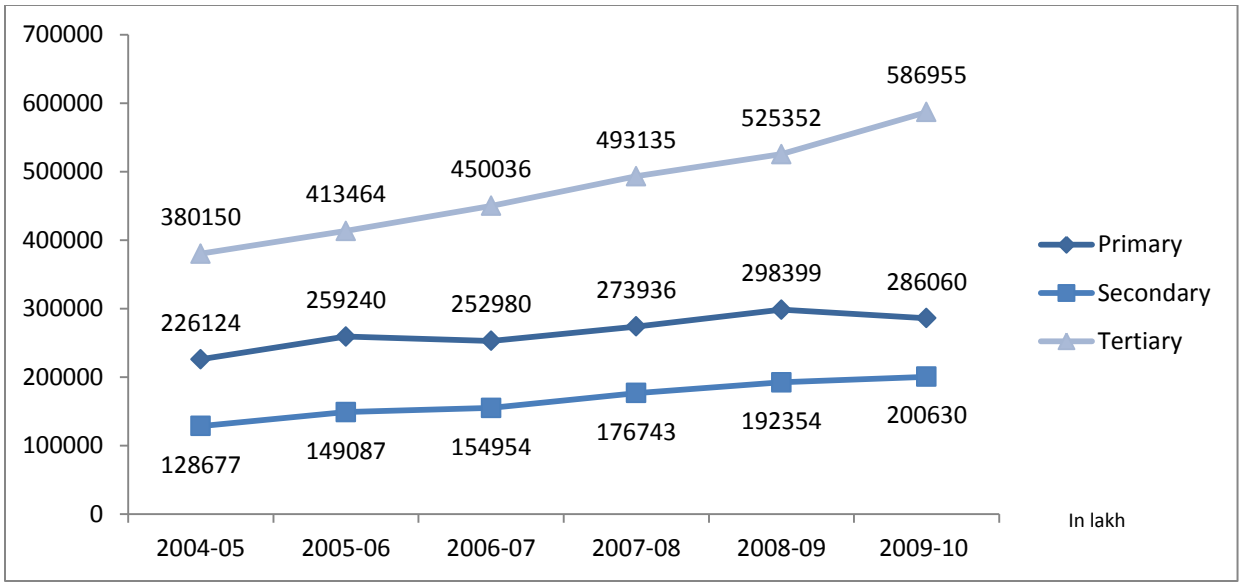


Figure 363 Sectoral contribution to GDDP, 2009-10

Primary Sector

The primary sector (agriculture, forestry &logging, livestock, fishing and mining & quarrying) contributed ~26.4 percent to the GDDP in 2009-10. Agriculture sector remained as the highest contributor to the primary sector, contributing 61 percent to the primary sector in 2009-10, followed by livestock (17 percent), mining and quarrying (11 percent), forestry and logging (9 percent) and fishing (2 percent). The CAGR for primary sector is 4 percent from 2004-2005 till 2009-10.

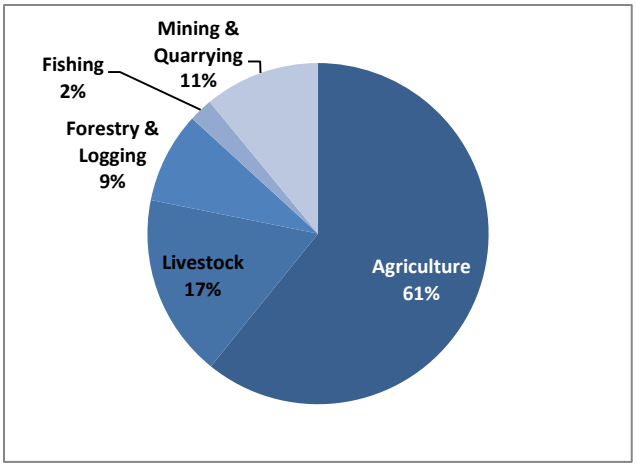


Figure 364 Primary sector contribution to GDDP, 2009-10

Secondary Sector

The contribution of the secondary sector to district GDP in 2009-10 was approximately 18.6 percent. The sector has shown a CAGR of ~8 percent from 2004-05 till 2009-10, primarily due the contribution of construction sector.

The growth of manufacturing sector has been impressive with registered manufacturing units growing by ~9 percent and unregistered manufacturing units by 4.24 percent from

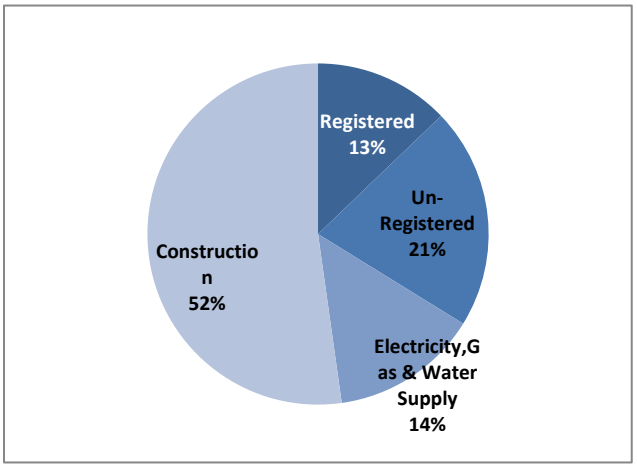


Figure 365 Secondary sector contribution to GDDP, 2009-10

2004-05 till 2009-10.

Tertiary Sector

The contribution of the tertiary sector has been significant to the district's economy over the years. In the year 2009-10, the contribution of the tertiary sector was 55.6 percent to the district's GDDP. The sector has witnessed CAGR among the three sectors of ~7.51 percent from 2004-05 till 2009-10, primarily due the trade, hotels and restaurants sector.

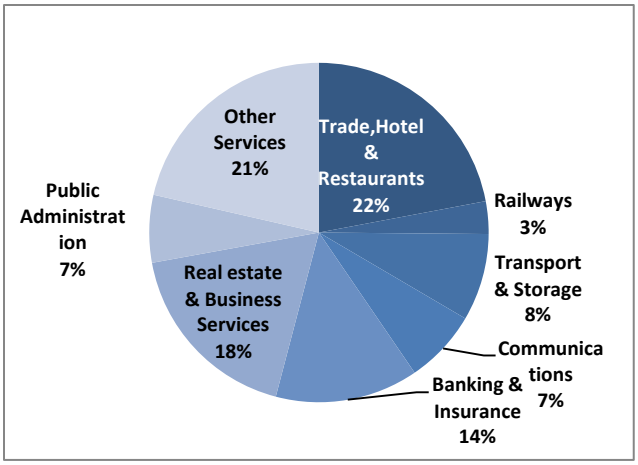


Figure 366 Tertiary sector contribution to GDDP, 2009-10

Industry Mapping

While the district is centrally located and is in close proximity to more developed districts, poor transportation network and infrastructure development acts as major hindrances to industrial development. Industry in this district contributes 3.09 percent to the state GDDP at constant prices from 2004-05 to 2009-10.

The district houses six industrial estates or development areas. There is a huge scope for industries like coal-based ancillaries, engineering, textiles, and leather.

Large & Medium Industries

The district has 10 large and medium industries in sectors like paper, coal mining, granite slab polishing, and rice bran oil. These industries provide employment to approximately 10,000 people. The estimated turnover of medium and large scale industries is INR 7,350 million.

Small Scale Industries

Warangal district has several small and scale industries. A Software Technology Park of India (STPI) was set up recently at NIT Warangal, with the intention of bringing the benefits of the IT revolution to second tier cities. Several companies appear to have shown interest in setting up industries.

Table 205 Large Scale & Medium scale Industries, DIC

Name of the Industry	Installed Capacity	Capital Investment (in INR lakhs)	Value of production (in INR lakhs)	Employees	
				Male	Female
Ballarpur Industries Ltd, a.p. rayons, Kamalpur	98550 mts	510	27000	1300	500
Sri Venkata Narsimha Solvent Oils Ltd, Nakkalpalli	75000 mts	9	4300	100	30
Singareni Collaries, Bhoopalpalli	13.16	185	13100	7061	600
Balaji Stake Industries, Hasanparthy (v&m)	12000 mts	4.25	1800	80	20
Ganesh Industries, ida Rampur	6000 mts	1.9	900	40	10
Santhosh Industries, ida Rampur	6000 mts	2.1	900	30	15
Balaji Stake Industries, Hasanparthy (v&m)	12000 mts	7	1800	40	20
Wardhannapeta Mahila Parsapara Sahakara Pala Uthpathidarula Sahakara Samithi, ellandu(v), Wardhanpet	75000 k.lt	4.56	1000	20	15
Total		**723.81**	**50800**	**8671**	**1210**

4.22 3 Education Infrastructure and Utilization

Table 206 Schools with enrolment details

The literacy rate of Warangal district is 66.16 percent is ranked at eleventh position from the top in comparison to other districts in the state. The literacy rate in 2011 is 66.16 compared to 57.13 has shown significant improvement in the education status. Gender wise, around 75.91 percent of males and only 56.45 percent of females are literates.

Schools	Total Number	No. of Enrollments
Primary Schools	3025	266297
Upper Primary Schools	695	102223
Secondary Schools	1123	274263
Higher Secondary Schools	2	1228

Table 207 Education Statistics; Source: Statistical Abstract, Andhra Pradesh – 2011

Warangal district is one of the major urban centers of the Telangana region, and its educational facilities have to meet the needs of people from neighboring districts as well. The city has emerged as a regional hub for educational facilities

Educational Institutions	Total Number
ITIs	2
Polytechnics	11
Engineering Colleges	28
Medical/nurses Colleges	3

with numerous schools, graduate and post graduate degree colleges, and reputed professional institutions like, National Institute of Technology (NIT), Kakatiya University (KU), Kakatiya Medical College, and Kakatiya Institute of Technology and Sciences (KITS), etc.

As per Census 2001, the total number of graduates and above in Guntur district is 99,917. It is interesting to note that out of the total population of graduates and above, 77 percent were male. Warangal's graduates made up 3.53 percent of Andhra Pradesh's total population of graduates.

Like in other districts, Warangal faces the challenge of retaining children in school. However, Waangal is doing better than may others. The gross enrolment ratiofor classes I-V is 105.36 percent, followed by 96.64 percent for classes VI – VIII , and 85.43 percent for classes VIII – X. In contrast, the ratios for the state as a whole are 100.46 percent, 84.76 percent, and 69.51 percent respectively. Warangal's favorable position, when it comes to school enrollments, is at least partly due the widespread availability of schools. Despote this, the dropout rates establish an increasing trend over classes I-X of 48.66 percent. Hence, more emphasis is required on quality of education, providing incentives to the best teachers, and improving facilities for students, particularly girls.

There are a total of 28 engineering colleges out of which only one is a government college and the rest are private. These engineering colleges offer a variety of courses and have a combined intake capacity of approximately 8,676 students per year. Major courses offered include electronics and telecom engineering, computer science and engineering, electrical engineering, mechanical engineering, and instrumentation engineering. There are 11 polytechnic colleges with a total intake capacity of 1,960 students per annum. Warangal district has the fifth highest number of polytechnic colleges in the state.

4.22.4 VTI's demand across various trades in Warangal district

Warangal's ITIs and ITCs have an overall intake of around 1,904 students per annum. Out of these, vocational training institutes, only two are government ITI and the rest are private ITCs.

These institutes imparts training in various trades like those for electricians, fitters, diesel mechanics, plumbers, instrument mechanics, welders, carpenters, dressmakers, electronics, masons, diesel mechanics, radio and television mechanics, turners, stenographers etc. New trades are introduced based on emerging industry demand.

The trades in constant demand include those for fitters, electricians, radio and television mechanics, and stenography. All the trades are permanently affiliated to National Council of Vocational Training of Director General of Employment and Training.

Table 208 Trade wise seating capacity in ITIs

Government VTI Trades		Private VTI Trades
Computer Operator & Programming Assistant	Refrigeration & Air Conditioning Mechanic	Cutting & Sewing
Draughtsman Civil	Stenography (English)	Draughtsman Civil
Electrical	Turner	Electrical
Electronic Mechanic	Welder (G&E)	Fitter
Fitter		Machinist
Instrument Mechanic		Mechanic Diesel
Mechanic Diesel		Turner
Machinist		

Table 209 Different types of trades in Government & Private VTI

The government VTIs sampled for the study offered 11 different trades while the private VTIs offered seven trades. The electrical trade is one of the most popular in the district, in both government and private ITIs. Most of the seats were occupied at both government and private it is, indicating high demand for the courses.

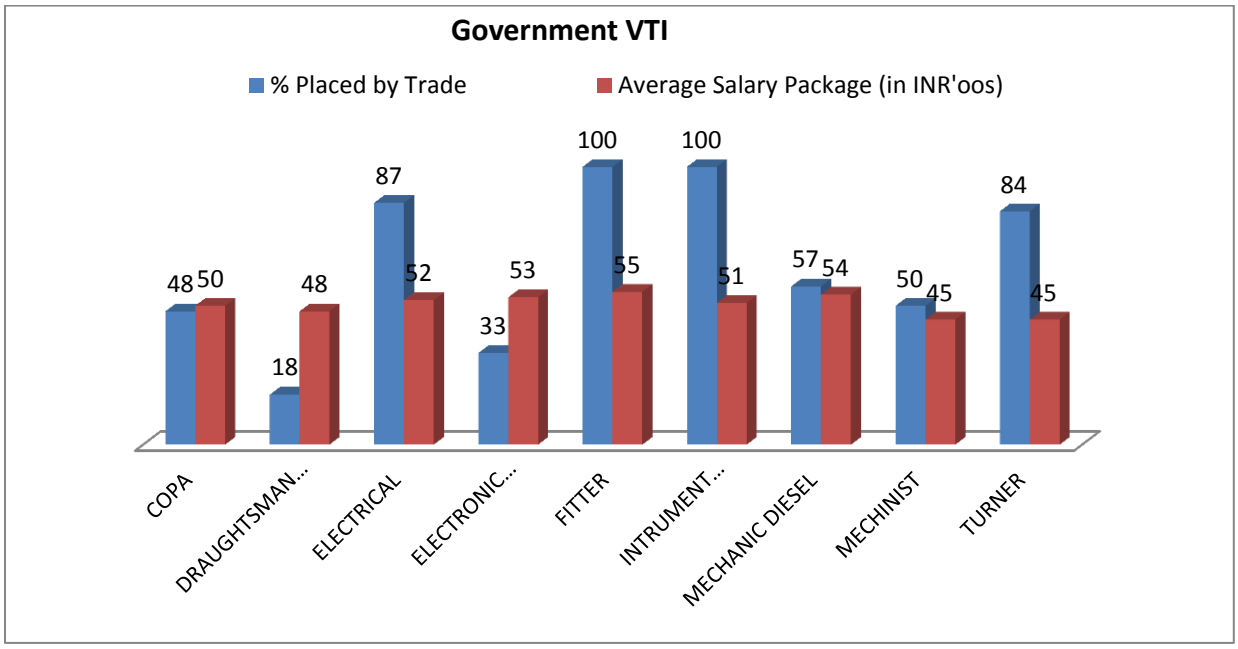


Figure 367 VTIs with placement percentage and average salary across trades in Government VTIs

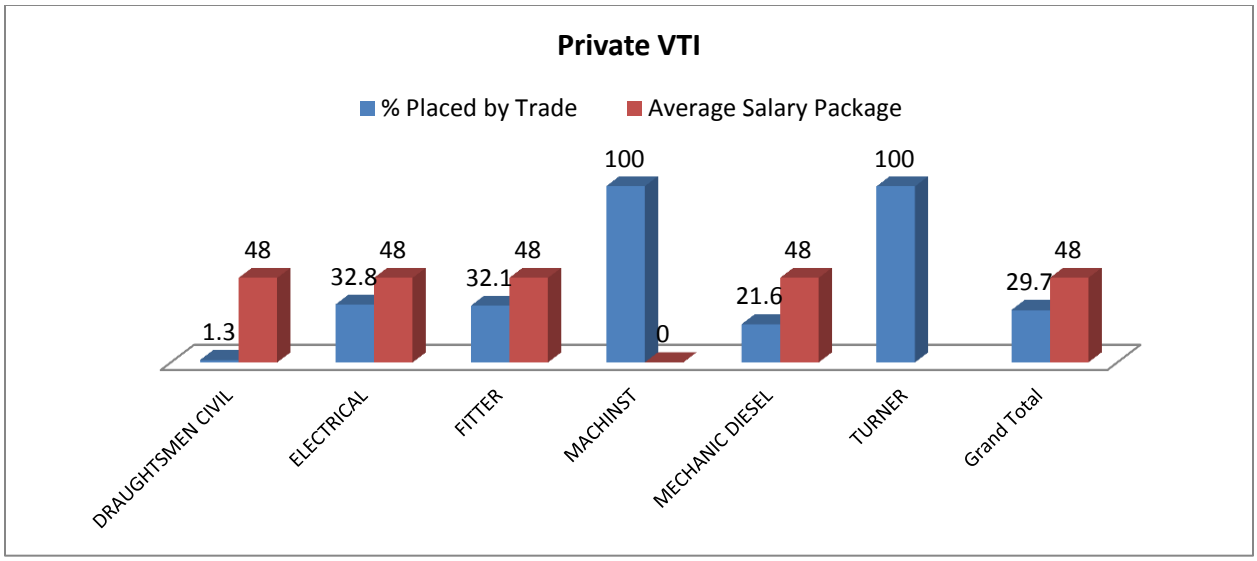


Figure 368 VTIs with placement percentage and average salary across trades in Government and Private VTIs

An overview of placement records by trade in the government VTIs indicates stronger prospects in all most all of the trades except two: those for refrigeration and air conditioning and stenography in English. Not a single trainee placed from these trades. Placements in private VTIs are also good across all trades except in the cutting and sewing, and DM/Civil trades.

Average salaries per trainee indicate strong prospect in almost all the trades in government VTIs. Trainees from the fitter trade got the highest average salaries of INR 5,500 per month.

In private ITIs, machinist trade was the highest paying, with an average salary of INR 5,000 per month. In both government and private VTIs, placements largely occur through campus interviews. The employment t exchange does not seem to play a significant role.

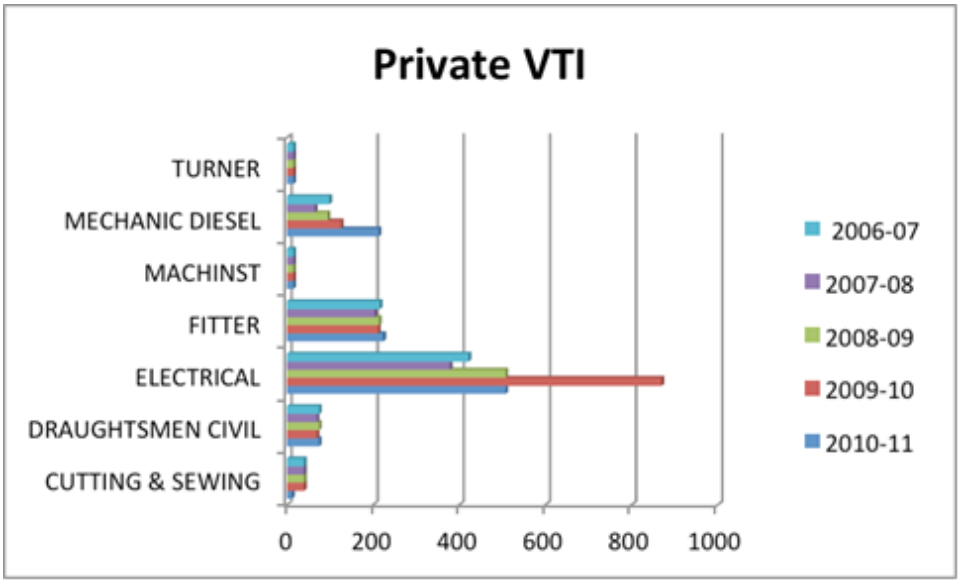


Figure 369 Number of seats occupied over the years in Private ITIs

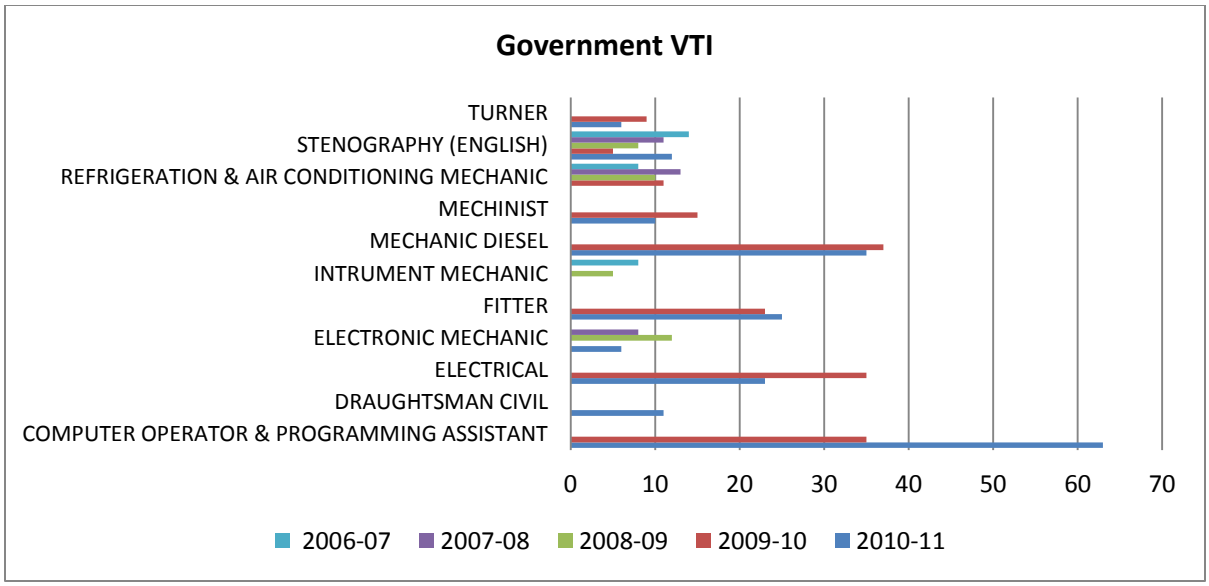


Figure 370 Number of seats occupied over the years in Government ITIs

The trends across all the trades show both increases and decreases in demand for most trades. Private VTIs have shown a huge intake of trainees across the electrical and fitter trades. Both government and private ITIs didn't have sufficient academic staff. These significant shortfalls are hampering the smooth functioning of the institutes.

4.22.5 Placement & Absorption Trend

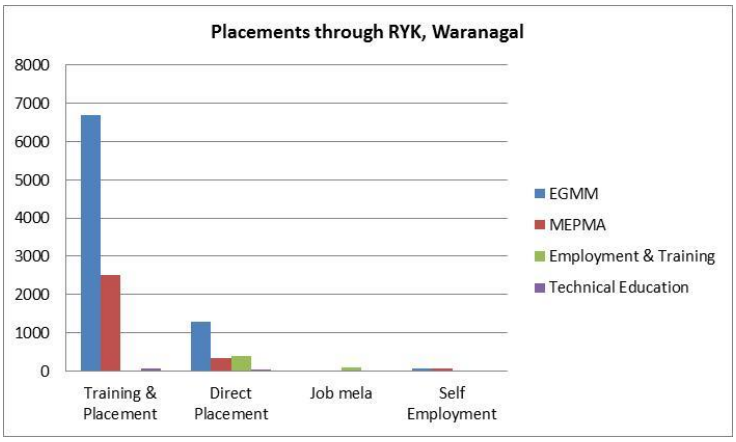


Figure 371 Placements through RYK; Source: RYK state level placements monitoring report, June 2012

In Warangal, there is just one employment exchange. The number of candidate names in the live register during 2009-10 was 1,41,560. However, only 123 candidates have got placed through the employment exchange. However, that low number is still better than the situation in most other districts.

Candidates searching for jobs can also approach the government's Rajiv Yuva Kiranalu mission, which helps educated youth get employment. However, as the diagram above shows, most of the candidates were either absorbed by private institutes with direct industrial linkages or through direct placements by industries offering job specific training. The Job Mela organized at the district level as a part of the Rajiv Yuva Kiranalu, recorded a negligible number of placements.

4.22.6 Sector wise mapping of industries in Warangal

Looking at the trends indicated below across various sectors, it is pertinent to note that the industries like minerals, textile and IT would be the prime movers of development in Warangal

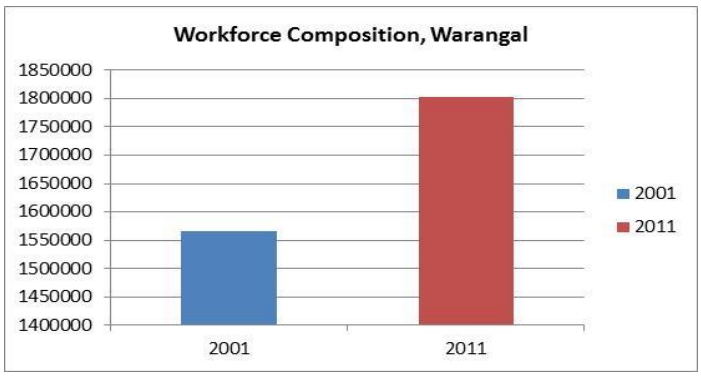
district in the near future. These sectors would also provide significant employment opportunities for the workforce across the skilled, semi-skilled and minimally skilled categories.

Table 210 Sector wise mapping of Industries; Source: DIC

Industry wise Sector Mapping					
NSDC (High growth sectors)	**Units**	**Employment**	**High**	**Medium**	**Low**
Agriculture and Allied	82	5630			
Automobile & Auto components	1	25			
Food Processing (Food beverages and Tobacco products)	456	10350			
Electronics Hardware	17	597			
Textiles and Garments	29	655			
IT					
Tourism, Hospitality and Travel	1348				
Chemicals and Pharmaceuticals	6	72			
Transportation/Logistics/Warehousing and Packaging	12	240			
Healthcare	96	428			
Education/ Skill Development	3	81			
Banking/ Insurance and Finance	249	1280			
Manufacture of Wooden furniture	55	293			
Paper and Publication	6	1346			
Rubber and Plastics	6	110			
Minerals based industries	82	3145			
Service based industries (Repairs & maintenance: R&D)	161	1345			

The district is industrially backward with a limited number of large or medium scale industries. The industrial economy of the district is closely associated with the demand and supply of the neighbouring districts. There is a huge scope for establishing agro food-based industries and services based industries mainly in the area of repairs and maintenance, R&D etc. Some of the leading players in this district are Balapur Industries Limited, Singareni Collaries, and Balaji Stake Rice Industries.

4.22.7 Composition of workforce



The working population in Warangal district is expected to rise by 15 percent against the 2001 data. The total workforce participation rate in Warangal district is 49 percent. The total male working population is 54.5 percent against the female working population of 41.8 percent. However, it is pertinent to note that the proportion of the female

Table 211 Projected Workforce; Source: Deputy Commissioner of Labour, 2012

working population in Warangal district is higher (6.9%) against the state figure.

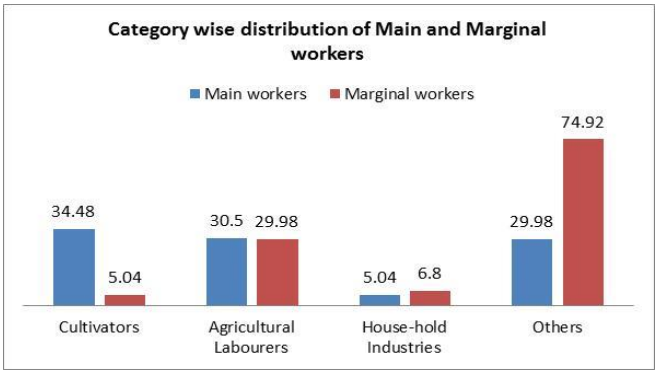


Figure 372 Category wise distribution of main and marginal workers; Source Census 2001

The main worker population comprises of 39.4 percent of the total population followed by the marginal workers at 8.9 percent and non-workers a 51.7 percent. Out of the population of main workers, 34.48 percent are cultivators, another 30.50 percent are agricultural laborers, 29.98 percent work in other industries and 5.04 percent are engaged in household industries.

Among marginal workers, 74.92 percent are engaged in other industries.

In Warangal district, it has been estimated that a large portion of workers in the age group of 15 - 59 years is higher in the category of main workers. Interestingly, among the non-workers and marginal workers, females in the age group of 15-59 outnumber males.

4.22.8 Projected Workforce Demand

As indicated in the table below, it is anticipated that construction sector will witness highest incremental demand from 2012 till 2021 followed by banking & financial services, IT/ITES and hospitality sector. These sectors have seen a high CAGR in the district over the years and thus are expected to employ large manpower. Apart from these sectors, agriculture & allied industries will remain has an important industry in terms of growth and employment.

Table 212 Projection of Manpower requirements from 2016 till 2022 across various Sectors

	2012-2017			2012-2022		
Industry	**Skilled**	**Semi-Skilled**	**Minimally Skilled**	**Skilled**	**Semi-Skilled**	**Minimally Skilled**
Agriculture & Allied Activities	2090	10449	39706	-1583	-7916	-30079
Mining & Quarrying	138	-830	-8	-527	-414	-565
Construction	34832	42062	32366	36473	39079	58357
Tourism, Travel & Hospitality	37028	-8629	-9855	6778	3050	2033
Transportation, Logistics, Warehousing & Packaging	2349	1196	399	1797	916	305
IT & ITES Sector	14122	1478	270	15109	1582	288
Banking & Financial Services Insurance	18145	2292	575	14199	6390	4260
Real estate	2887	4004	130	1519	1627	2430
Other Services	17562	-5920	-6260	864	396	244

Food processing	-1713	-1291	-421	-1713	-1028	-685
Chemicals & Pharmaceuticals*	25	14	11	25	15	10
Rubber and plastic products*	15	9	6	15	9	6
Auto & Auto components*	58	33	25	58	35	23
Metals & non metallic products*	-8030	-4807	-3223	-8030	-4818	-3212
Textile & leather	105	58	47	105	63	42
Wood & Paper products	276	104	172	276	166	111
Total	119889	40222	53940	65365	39151	33569

***Manufacturing Sectors**

4.22.9 Skill Gap Analysis

The skill gap analysis was performed by undertaking a survey instrument. A structured questionnaire was designed to map the current and the future skill requirements of the industries identified in Warangal.

The analysis factored in industry linkages with vocational training institutes, the employment exchange, and with other sources for workforce absorption and retention. It highlights a significant mismatch between industry skill requirements and the skill pool emerging. Overall, the supply of minimally skilled labor exceeds demand in all years. On the other hand, supply of skilled and semi-skilled manpower remains lower than industry demand.

Table 213 Projected incremental demand supply gap for the district till 2021-22

Workforce Demand & Supply Gap						
	2012-2017			2017-2022		
Sectors	**Skilled**	**Semi-Skilled**	**Unskilled**	**Skilled**	**Semi-Skilled**	**Unskilled**
Demand	119889	40222	53940	65365	39151	33569
Supply	14883	11103	145102	6321	18899	133667
Gap	105006	29119	-91162	59045	20252	-100098

In-depth interviews conducted with senior functionaries of industry associations highlighted the demand for skilled manpower. Some of the important findings were as follows:-

1. Industries also felt confident about the supply of skilled manpower in the organized sector for coming years, but they felt that training providers should impart more practical training as per the current requirements.
2. Demand for plumbers, gardeners, drivers, and office assistants will be high over the coming years.

4.22.10Youth Aspirations

The youth survey study was primarily undertaken through a survey. Structured questionnaires were designed to capture the youth aspirations and perceptions across the four categories of employed, self-employed, unemployed, and trainees.

In-depth interactions were held with respondents across the various categories of youth to provide deeper insight.

The youth covered were from the categories of employed, self-employed, unemployed and trainees. Approximately 73.7 percent of the youth covered were college educated and 26.3 percent had completed high school education. 60 percent of the respondents were from government VTIs and the remaining 40 percent were from private institutes.

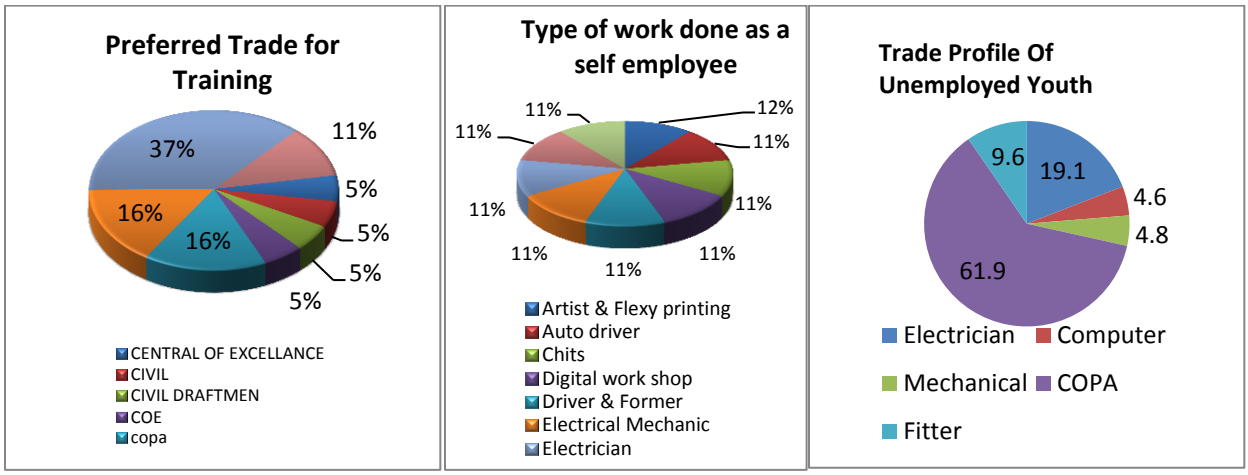


Figure 373 Profile of respondents (trainee, self-employed & unemployed youth) by trade in sample of Warangal

The respondents were asked to cite their preferred trades. The course for electricians was the most popular, with 37 percent opting for it, followed by 16 percent each for the diesel mechanic and COPA courses. It was noticed that youth from all trades preferred self-employment. A large number of unemployed youth were from the COPA trade, followed by the electricians' trade.

Parameters considered by District's youth while opting for vocational training

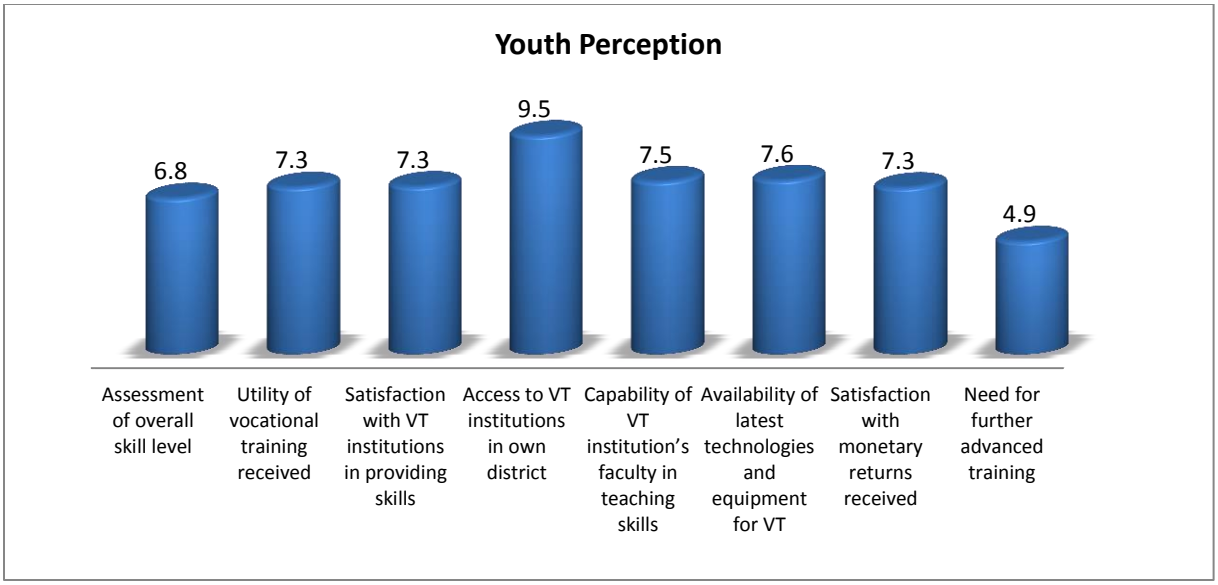


Figure 374 Warangal Youth's perception, need and aspirations –Sample Group

The respondents were also asked to rate their experiences with VTIs on a scale of 10. Current facilities of the training institutes were rated on an average at 7.3. On the whole, the respondents perceived the available faculties, teaching technologies and monetary returns as satisfactory. However, they didn't see much value in further training because industry doesn't reward the skilled manpower with higher salary. Almost, 60 percent of the youth interviewed said that they haven't received any annual increment. Currently, the average salary of the employed youth was around INR 7,550. However, their salary expectations were around INR 12,000.

4.22.11 Recommendations: Skill Development Eco System

The services sector is bound to grow in the coming years in Warangal. Skilled manpower in trades such as organized retail, automobile, repairing and servicing technicians etc. will be demand in the industry. Warangal will also need to train its youth in multiple skills, so they can find job in seasonal industries. NSDC and the State should promote training partners who can offer courses in the above mentioned areas.

Table 214 Key demand sector, Warangal

Sectors	Growth Opportunities
Construction	• The construction sector is the highest contributor to the economy (52 percent) in secondary sector in 2009-10. • The district will require approx. 2.4 lakh incremental manpower till 2021-22. • More industry specific courses are required in the district such as bar bending, masonry, etc.
BFSI	• BFSI is expected to contribute significantly to the creation of jobs in skilled segment. • The sector has witnessed a growth rate (CAGR) of approx. 14 percent from 2004-05 till 2009-10. • Trainings are required in new financial products, data entry and

	insurance sector. Special focus should be on rural banking.
Tourism, travel & hospitality	• The trade, travel & restaurants sector contributed highest (22 percent) to tertiary sector DDP in 2009-10.

The key stakeholders' contributions would be as follows:

State: Warangal's literacy rate has shown improvement over the years due to efforts made towards improving the educational infrastructure in the district. The district today also attracts students from neighboring areas for education. However, industrial placements are very low in the district.

Action Plan:

a. State needs to focus on revamping employment exchanges.
b. More focus on industrial linkages, involving industry in career fairs and other open forums.
c. Provide career counseling at the school and college level is essential to facilitate better course and job match for the youth.

Training Partners: The district is expected to witness growth in secondary and tertiary sectors.

Action Plan:

a. Collaborate with industry to build curriculum for better relevance.
b. Improve linkages with existing industries, to know the demand better
c. Set up short term skilling courses in leather sector. Currently, not many courses are offered in the district. The courses should also focus on marketing and sales skills.

Industry

Action Plan

a. Collaborate with ITIs/training institutes in the region and introduce industry relevant trades or courses.
b. Tie up with training institutes for the purpose of organizing meaningful training programs that can cater for on-job-training and off-job training.

NSDC:

Action Plan:

a. NSDC should focus on increasing linkages between training providers, state and industry.
b. Focus should be on improving the existing quality of the training infrastructure. Regular assessment of training providers should be undertaken.

4.23 West Godavari

This chapter highlights the economic base and occupational structure of West Godavari district. It identifies the high-impact industries and skills needed to match the expected growth.

The latter part of the chapter examines the projected workforce demand and supply in the coming years and the optimization plan for the district.

4.23 West Godavari

4.23.1 West Godavari District Demographic Profile

West Godavari is situated on the west banks of river Godavari and is known as the rice granary of Andhra Pradesh. The district is bounded by Bay of Bengal to the south. West Godavari has three different geographical zones: the delta, the upland and the Agency track. Paddy is the principle crop of the district besides sugarcane, chilies, coconut and tobbaco. The Upland area of the district is rich in substantial production of mango, cashew, citrus and other fruits. The district is also a major exporter of fish and prawn.

Table 215 West Godavari district at a glance

West Godavari at a Glance				
Population	**West Godavari District**		**Andhra Pradesh**	**Remarks**
	Provisional Census 2011	**Census 2001**	**Provisional Census 2011**	
Total Population	3934782	3803517	84665533	
Total Population - Male	1963184	1910038	42509881	
Total Population - Female	1971598	1893479	42155652	
Population Growth	3.45%	8.13%	11.10	
Area Sq. Km	7742		275100	
Density of Population (Density/Area sq.Km)	508	491	308	
Proportion of Andhra Pradesh population	4.65%	4.99%		
Decadal growth of population (2001 - 2011)	3.45%	8.13%	11.10%	
Literacy rate	74.32	73.53	67.66	
Male Literacy	77.63	78.05	75.56	
Female Literacy	71.05	68.99	59.74	
Sex ratio (per 1000)	1004	991	992	
Worker population participation rate		44.1	45.7	Census 2001
Cultivators to total workers		12.5	22.52	Census 2001
Agriculture laborer in workforce		56.7	39.64	Census 2001
Household workers		3.00	4.71	Census 2001
Other industry and services		27.9	33.13	Census 2001

As per provisional Census 2011 data, West Godavari accounts for a population of 3.93 million with a sex ratio of 1,004 females per 1,000 males compared to the 2001 Census figure of 991. The district has the sixth highest sex ratio in the state. The total area of West Godavari is 7742 sq.km and it accounts for 4.65 percent of the total area in Andhra Pradesh. It is pertinent to note that among 23 districts of the state, West Godavari district is the second most populated. The

district also has the highest density of population in the state. But despite its high population; there are signs of population stabilization. Decadal population growth fell to 3.45 percent in 2011 from 8.13 percent in 2001. West Godavari's literacy rate as of 2011 was 74.32 percent, which is the fourth highest in the state. Gender wise, around 77.63 percent of males and 71.05 percent of females are literate. However, the district has better access to educational facilities and infrastructure than other districts in the state. Its human development index is 0.607, the fourth highest in the state. However, in other respects the state trails behind. The percentage of urban population to the total population in the district was just 20.55 percent in 2011, only a slight increase over 2001's 19.74 percent. Also, West Godavari's per capita income of INR 33,712 is lower than the state average of INR 37,061 at constant price 2004-05. Much of the district is still rural based.

West Godavari's total workforce participation rate is 44.1 percent. The total male working population is 60.2 percent while the female working population is 28 percent. However, it is pertinent to note that the proportion of the female working population in West Godavari, which is 6.9 percent, is lower than the state average.

Main workers comprise 37.5 percent of the total working population followed by marginal workers at 6.6 percent and non-workers at 55.9 percent. The proportion of non-workers is higher than the state average by 1.7 percentage points. Out of the main workers, 53.24 percent are agricultural laborers, followed by other industries at 29.88 percent, cultivators at 14.20 percent, and household industries at 2.67 percent. Many of the districts main workers are engaged in agriculture or services-based industries like tourism.

4.23.2 Economic Profile

The district's Gross district domestic product (GDDP) has grown at the growth rate (CAGR) of 2.73 percent from 2004-05 till 2009-10. In 2009-10, tertiary sector contributed ~48.3 percent to the GDDP primarily due to the contribution of trade, hotels and restaurants sector followed by primary sector which contributed ~39 percent to the district's GDDP.

As shown in the chart below indicates the contribution of primary, secondary and tertiary sector to GDDP from 2004-2005 till 2009-10.

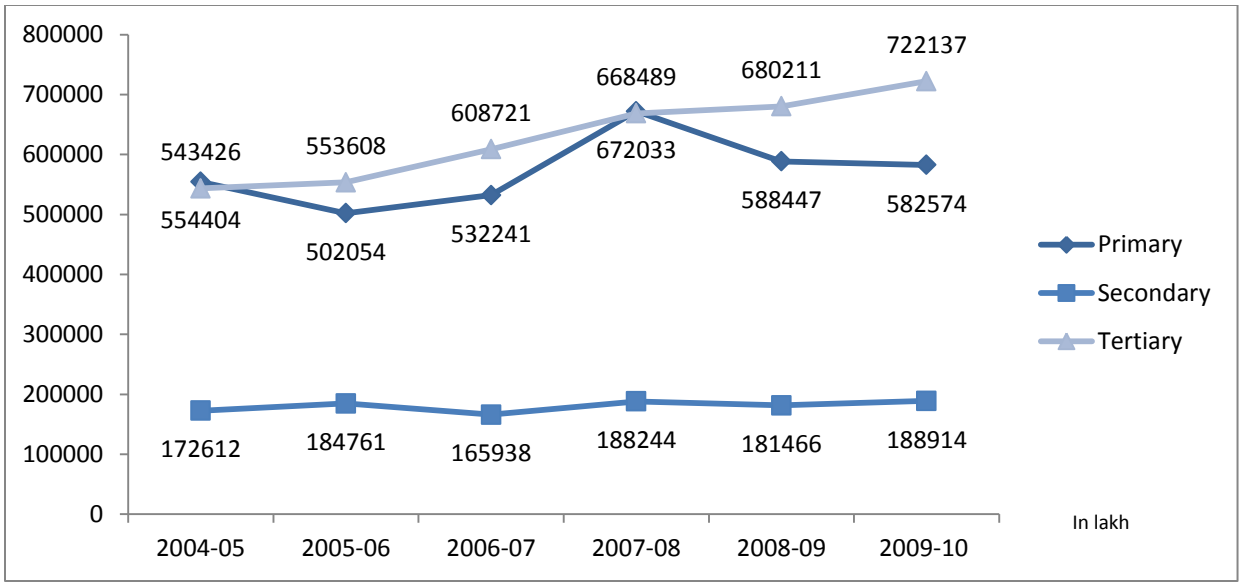


Figure 375 Sectoral contribution to GDDP, West Godavari

Primary Sector

The primary sector (agriculture, forestry &logging, livestock, fishing and mining & quarrying) contributed ~39 percent to the GDDP in 2009-10. Agriculture sector remained as the highest contributor to the primary sector, contributing 41 percent to the primary sector in 2009-10, followed by livestock (23 percent), fishing (27 percent), mining and quarrying (7 percent) and forestry and logging (2 percent).

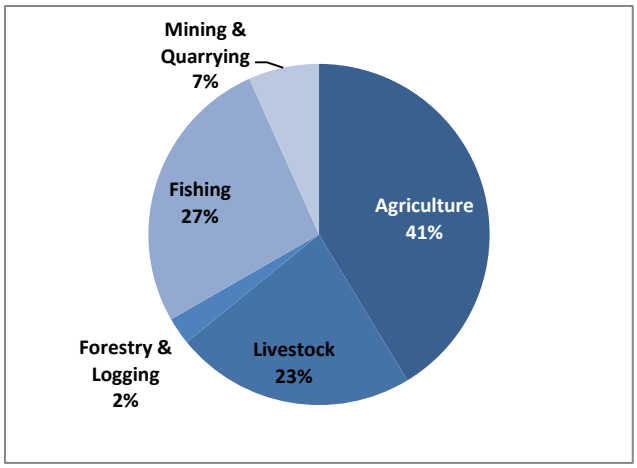


Figure 376 Primary sector contribution to GDDP, 2009-10

The CAGR for primary sector was 1 percent from 2004-2005 till 2009-10.

Secondary Sector

The contribution of the secondary sector to district GDP in 2009-10 was approximately 12.6 percent. The sector has shown a CAGR of 16 percent from 2004-05 till 2009-10, primarily due the contribution of construction sector.

The construction sector has shown an impressive CAGR from 2004-05 till 2009-10.The registered manufacturing units has

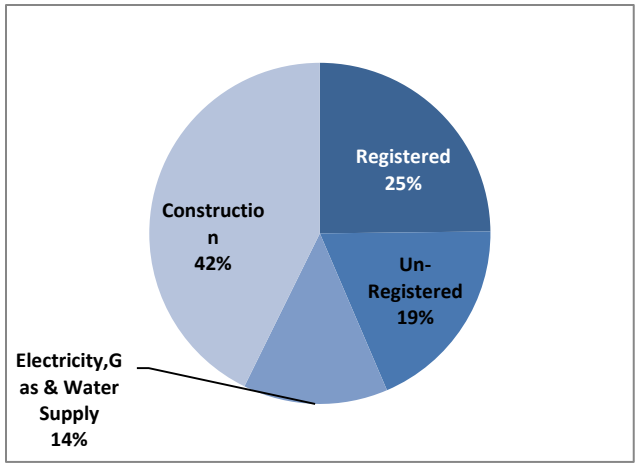


Figure 377 Secondary sector contribution to GDDP, 2009-10

negative growth rate of -7 percent but unregistered manufacturing units grew at a 4 percent from 2004-05 till 2009-10.

Tertiary Sector

The contribution of the tertiary sector has been significant to the district's economy over the years. In the year 2009-10, the contribution of the tertiary sector was ~48.3 percent to the district's GDDP. The sector has witnessed CAGR of 4.85 percent 2004-05 till 2009-10, primarily due the trade, hotels and restaurants sector.

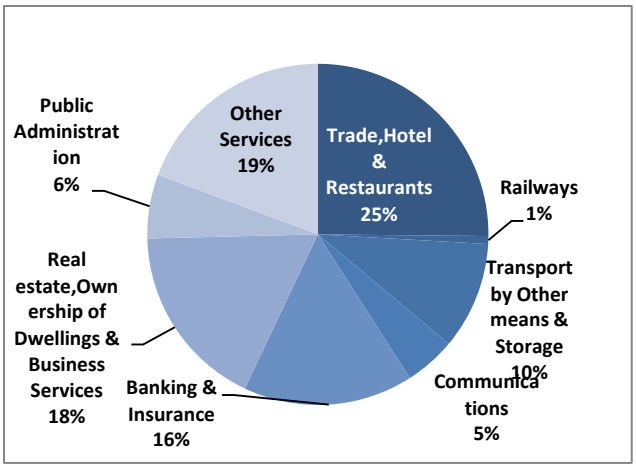


Figure 378 Tertiary sector contribution to GDDP, 2009-10

Industry Mapping

West Godavari district is becoming a prominent place for large and medium scale industries thanks to the strong supplies of water and power. Industry in the district contributes to 4.30 percent of Andhra Pradesh's GDP at constant prices from 2004-05 to 2009-10.

Large and medium scale industries are flocking into West Godavari. The district has a lot of potential in the marine, agriculture, and horticulture segments. The West Godavari district has the potential for establishing industrial corridors. Agriculture is the backbone of the district's economy and about 78 percent of the working population depends on agriculture. The district is well connected with three major metropolitan centers of the state via road and rail network. The major crops grown are paddy, sugarcane, maize, tobacco, red gram, green gram, black gram, groundnuts, sunflower and pulses. Also, the upland areas of the district are rich in mango, cashews, and citrus and other fruits. In the coastal areas, fish and prawn culture have developed over the last decade. Fish and prawn from here are sold elsewhere in the state as well as to West Bengal and foreign countries.

Large & Medium Industries

There are 52 large and medium scale industries existing in the district with an investment of INR 5,970 million and providing employment to 16,683 people.

Small Scale Industries

The district has a large number of small scale industries, most of which are food-based Industries, plastics, paper, chemicals, minerals, or engineering.

4.23.3 Education Infrastructure and Utilization

West Godavari has the fourth highest literacy rate in the state. It also possesses a reasonable number of colleges for imparting technical and non-technical education.

The literacy rate of West Godavari is 74.32 percent, giving it the fourth highest position in the state. In 2001 it was 73.53 percent. As of 2011, around 77.63 percent of males and 71.05 percent of females were literate.

Schools	Total Number	No. of Enrollments
Primary School	2,856	2,30,038
Upper Primary Schools	530	90,636
Secondary Schools	672	2,37,585
Higher Secondary Schools	7	5,181

Table 216 Schools with enrollment details Source: Statistical Abstract, Andhra

As per the Census 2001, the total number of graduates and above in West Godavari district was 1,22,202. It is interesting to note that out of the total population of graduates and above, 72 percent were male and just 28 percent were females. Also, the percentage of the district graduates to Andhra Pradesh total graduates is 4.32 percent.

The gross enrolment ratio for classes I-V is 81.54 percent. That figure falls to 74.36 percent for classes VI – VIII, and then to 61.10 percent for classes VIII- X. In contrast, the state's ratios of 100.46 percent, 84.76 percent, and 69.51 percent respectively.

The dropout rates establish an increasing trend over classes I-X of 36.70 percent. But despite the challenges involved in retaining children in school, West Godavari has the least number of drop outs in the state. The district appears to have achieved this thanks to its educational setup. For technical education, there are a total 32engineering colleges, all of them private. These engineering colleges have a combined intake capacity of approximately 8,130 students per year. Major engineering courses offered include those in electronics, electrical, telecom, computers, instrumentation, and mechanical engineering. There are also 12 polytechnic colleges with a total intake capacity of 4,920 students per annum.

4.23.4 VTI's demand across various trades in West Godavari district

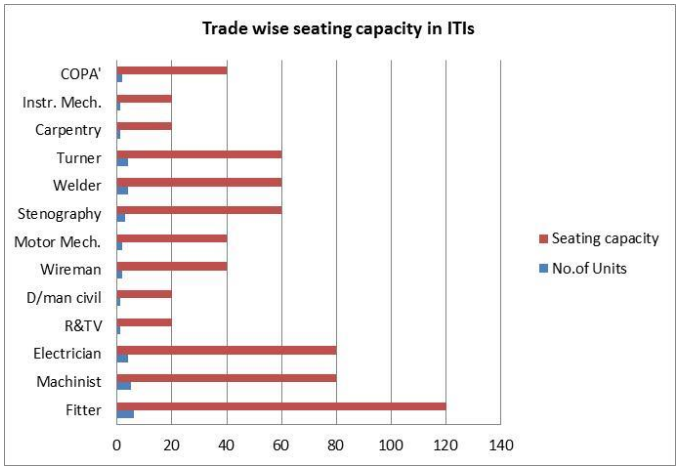


Figure 379 Trade wise seating capacity in ITIs

There are 34 vocational training institutes in the district. The overall intake of all the VTIs is around 44,458 students per annum. Out of these vocational training institutes only four are government ITI and the rest are private. These institutes impart training in various trades including those for electricians, fitters, diesel mechanics, plumbers, instrument mechanics, welders, data preparation, computer operator and programming assistant, civil draughtsmen, dressmaking, radio and television mechanics, and turners. New trades are

introduced based on emerging industry demand. At present, trades like those for fitters and electricians are in demand.

It is pertinent to note that West Godavari has the highest number of vocational training institutes among all the districts in the state. All the trades being taught at these institutes are permanently affiliated to National Council of Vocational Training of Director General of Employment and Training.

A primary survey was conducted to better understand the state of skills education in the district. Five government VTIs and five private ones were interviewed. Both government and private VTIs taught the same courses. Most are engineering-based and cater to local market needs. There are few offerings oriented towards women candidates.

Table 217 Courses offered in government and private VTIs (sample), West Godavari

Government VTI Trades		Private VTI Trades
Computer	Mmv	Electrical
Copa	R & Ac	Fitter
D Man Civil	Welder	Instrument Mechanic
Electrical	Instrument Mechanic	Man Civil
Fitter	Mechanic Diesel	

The government VTIs sampled for the study offer 11 different trades for training while the private VTIs offer only four trades. The fitter and iinstrument mechanic courses appear to be the most popular in government VTIs. In private VTIs, the electrical trade followed by the fitter trade are the most popular. Indeed, demand for the electricians' course is so strong that private VTIs have seven times as much capacity for the course as the government ones. It appears in the government VTIs; the number of actual trainees compared to the number of approved number of trainees varies across all the trades. On the other hand, no gap has been seen between the actual and approved strengths of trainees in private VTIs.

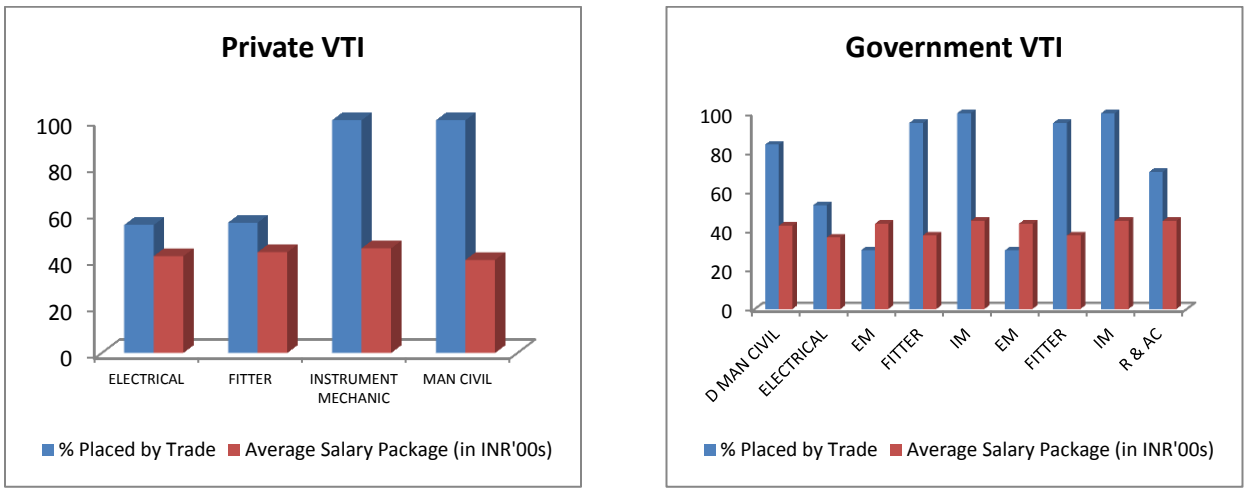


Figure 380 382VTIs with placement percentage and average salary across trades

An overview of placement records by trade in government VTIs indicates stronger prospects in Draughtsman Civil, fitter, and refrigeration and air conditioning trades. Also, a complete batch of students from the instrument mechanic trade got placed. On the other hand, in courses for COPAs, draftsmen, diesel mechanics, and welders, not a single student got placed.

Placements in private VTIs are also strong across all trades. All the trainees from the courses for instrument mechanics and Draughtsman Civil got placed.

Table 218 Approved & Actual Staff in VTI

Government VTIs		
Positions	Approved	Actual
Managerial	22	20
Academic	68	54
Support	10	10
PRIVATE VTIs		
Positions	Approved	Actual
Managerial	37	37
Academic	107	106
Support	10	10

Average salaries per trainee indicated good prospects in motor vehicle mechanic trade in government VTIs, with trainees getting average salaries of INR 10,000 per month. In private VTIs, the highest paid jobs were in the instrument mechanic trade, with an average salary of INR 4,500 per month. While most placements in government and private VTIs occurred through campus interviews, many students got jobs by proactively approaching industry. Employment exchanges do not appear to be playing any role in placements.

The trends across most the trades show an increase in demand. The exceptions are the courses for fitters, instrument mechanics, and motor vehicle mechanics. Private VTIs have also increased the intake of trainees across all the trades to keep up with demand.
Another challenge for VTIs is staffing. Government VTIs appear to be understaffed in terms of their academic and managerial manpower. In the case of private VTIs, the shortfall of manpower was in academic category, but smaller than in government VTIs.

4.23.5 Placement & Absorption Trend

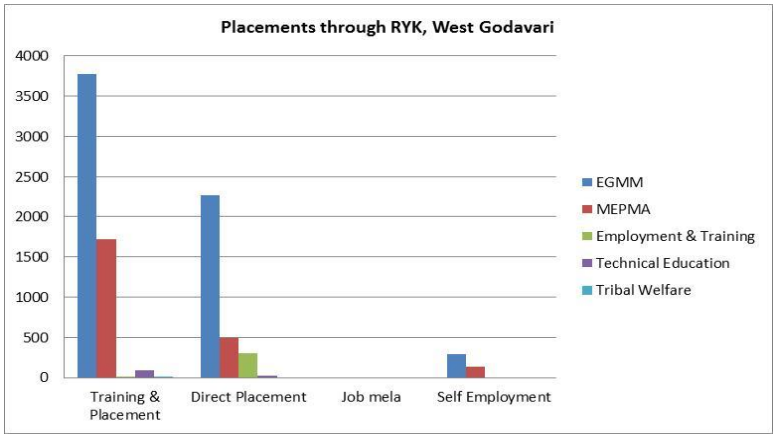


Figure 381 Placements through RYK; Source: RYK state level placements monitoring report, June 2012

The placement of the candidates seeking for job opportunities available within and outside district is done either through registering with the employment exchange, or through Rajiv Yuva Kiranalu mission with a focus on offering placements to the educated youth and unemployed youth in rural and urban areas of the district. However, as the diagram shows, most candidates are absorbed by private institutes with direct industrial linkages offering training and development. However, there has also been marginal growth in direct placements by industries offering job specific training. On the other hand, the

Job Mela organized at the district level as a part of the Rajiv Yuva Kiranalu, has had very little success.

West Godavari district has two employment exchanges. The number of candidates in the live register during 2009-10 was 60,522. However, only about 15 people actually got placed. Separately, a total of 1,656 candidates have been placed through the EGMM and MEPMA programs.

4.23.6 Sector wise mapping of industries in West Godavari

Industry in West Godavari is fast becoming a major source of growth. Looking at the trends recorded below, it is pertinent to note that energy and mineral-based industries will be the prime movers of development in the near future.

Table 219 Sector wise mapping of Industries; Source: DIC

Industry Wise Mapping					
NSDC (High growth sectors)	**Units**	**Employment**	**High**	**Medium**	**Low**
Agriculture and Allied					
Automobile & Auto components	18	428			
Food Processing (Food beverages and Tobacco products)	1131	23594			
Electronics Hardware	9	122			
Textiles and Garments	39	8047			
IT					
Chemicals and Pharmaceuticals	29	1191			
Tourism, Hospitality and Travel	1656				
Transportation/Logistics/Warehousing and Packaging	5	61			
Healthcare	84	138			
Education/ Skill Development	37	612			
Banking/ Insurance and Finance	378				
Manufacture of Wooden furniture	197	2012			
Paper and Publication	54	2689			
Minerals based industries	149	1229			
Service based industries (Repairs & maintenance: R&D)	14	605			

High	Units>200, emp>1000 - all applicable
Medium	Units>100, emp>500 - all applicable
Low	Units>10,emp>30 - all applicable
Emerging	Investment & demand based sectors of district -DIC

Table 220 Sectors covered with number of 1

Sectors	No. of Industries Sampled
Auto & Auto Components	1
Chemical & chemical products	2
Food Processing & Products	2
Paper Based	4
Textile & Handloom	1
Grand Total	**10**

In order to understand the trends in the market and industrial set up, a stratified sample of 10 industries was selected). The sample of employers consisted of functionaries from diverse industries located in the district.

It was observed that productivity and efficiency were characteristics that employers rated most highly. Other traits were rated almost on similar lines across sectors and industries. The food processing and textiles industries appeared to make the most demands of workers. On the other hand, the auto & auto components sector was least demanding on skilled workers.

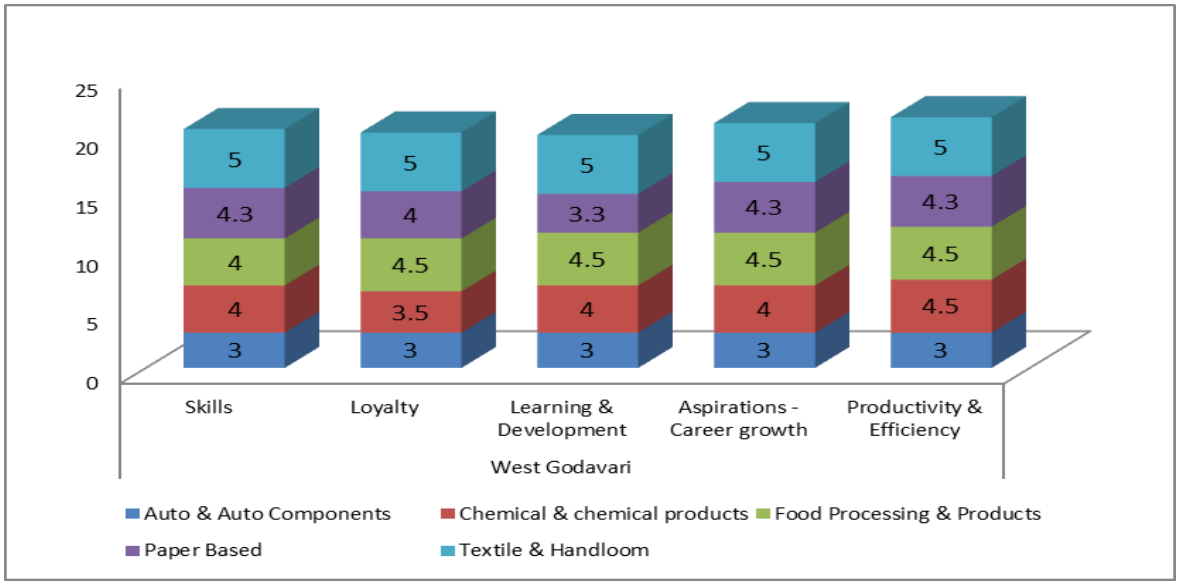


Figure 382 Expectation of employers as per sample survey

4.23.7 Composition of workforce

The spread of industries clearly indicates that there is an increasing prominence of the secondary and tertiary sectors. There is also huge potential for growth in the agro-food, travel, and wood-based industries. There is also some marginal growth in workforce demand from emerging sectors like paper printing, minerals, and services. Some of the leading players in this district are Godavari Kraft Paper Ltd., Bala Balajee Textiles, and Akula Boards.

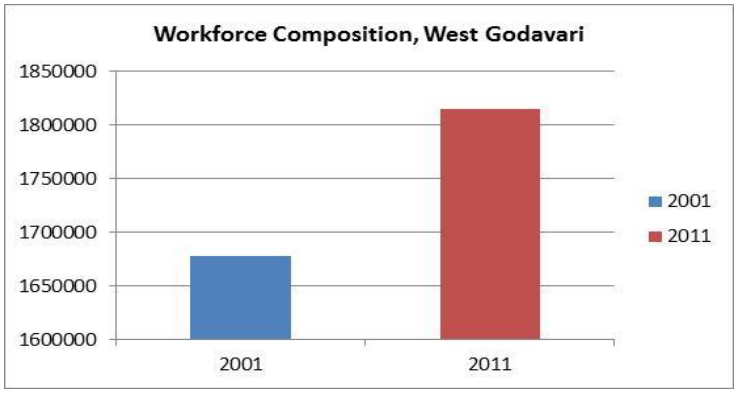


Figure 383 Category wise distribution of main and marginal workers; Source Census 2001

The working population in West Godavari district is expected to rise by 8.12 percent against the 2001 data. The major workforce participation observed in West Godavari district over a period of two decades has shown that the agricultural labors dominate the total working population. The total workforce participation rate is 44.1 percent, with the total male working population at 60.2 percent and the female working population at 28 percent. The proportion of the female working population in West Godavari district is just 6.9 percent, which is lower than the state figure.

Out of the total working population, the population of main workers makes up 37.5 percent, followed by marginal workers at 6.6 percent and non-workers as 55.9 percent. The proportion of non-workers is higher than the state figure by 17 percentage points.

Out of the population of main workers, 53.24 percent are agricultural laborers, followed by 29.88 percent in other industries, and 14.20 percent who are cultivators. They are followed by 2.67 percent who work in household industries. Most of the population of main workers is engaged in either agricultural or services like tourism.

Indeed, most of the main workers population appears to fall into the 15-59 years age group. Interestingly, among non-workers and marginal workers, females in the age group of 15 - 59 outnumber the males.

Turning to marginal workers, the primacy of agricultural activity becomes clear. About 76.24 percent of marginal workers are agricultural laborers. West Godavari has the highest number of agricultural laborers in the state, but also the fourth lowest number of cultivators.

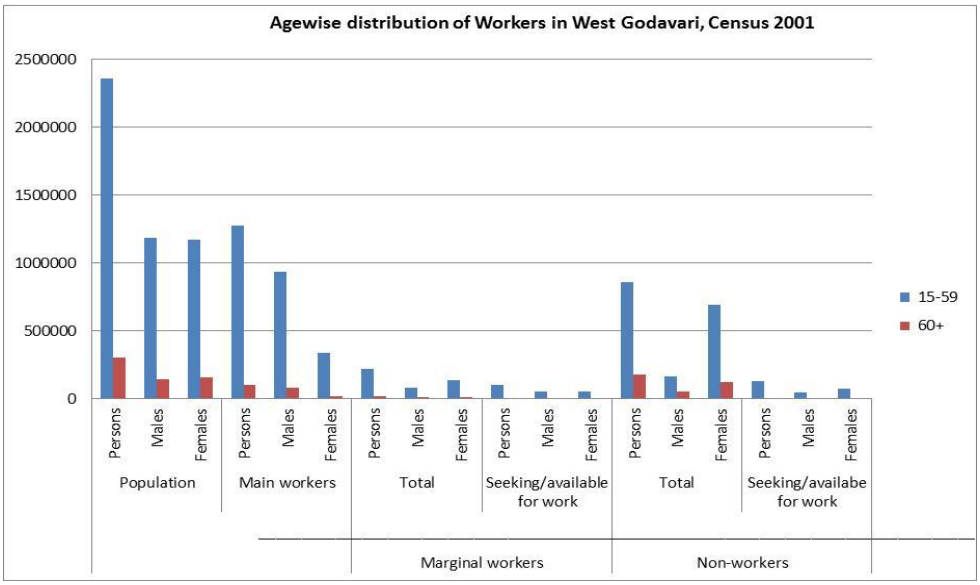


Figure 384 Age wise distribution of workers

4.23.8 Projected Workforce Demand

The food processing and paper-based industries have the potential to engage more workers in the near future. Companies also appear willing to hire semi-skilled workers and there has clearly been an increase in the size of the minimally skilled workforce.

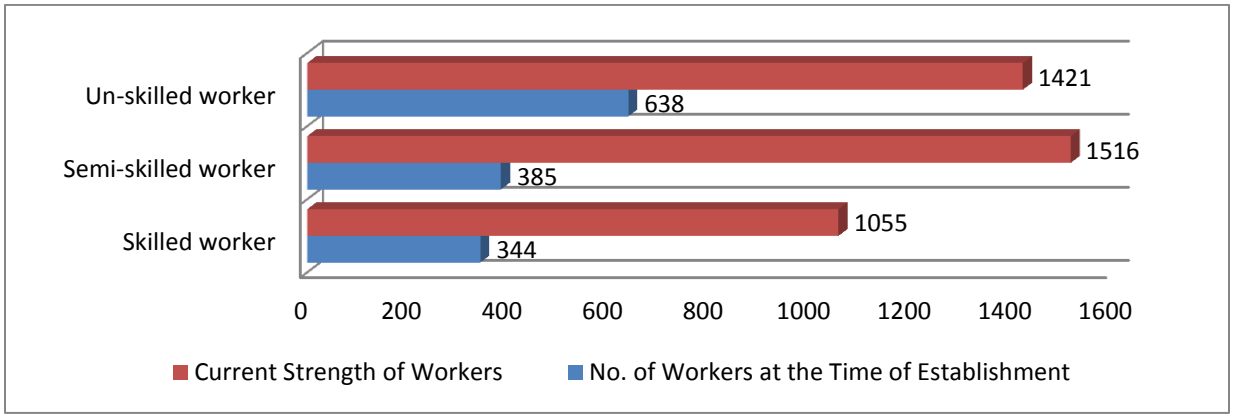


Figure 385 Workforce distributions in sampled industries in terms of skilling as per primary survey

A total of ten industries were sampled for the survey to represent five major sectors in the district. The chart above shows the availability of skilled, semi-skilled, and minimally skilled workers according to their numbers in the sampled industries All of the sampled industries across five sectors could provide their skilled workers strength; nd all of them report retention and an increase in their skilled worker strengths.

In the minimally skilled workers category, four out of five sectors report retention and an increase in their worker strengths. On the other hand, the textile and handloom sectors have reduced their minimally skilled workforce.

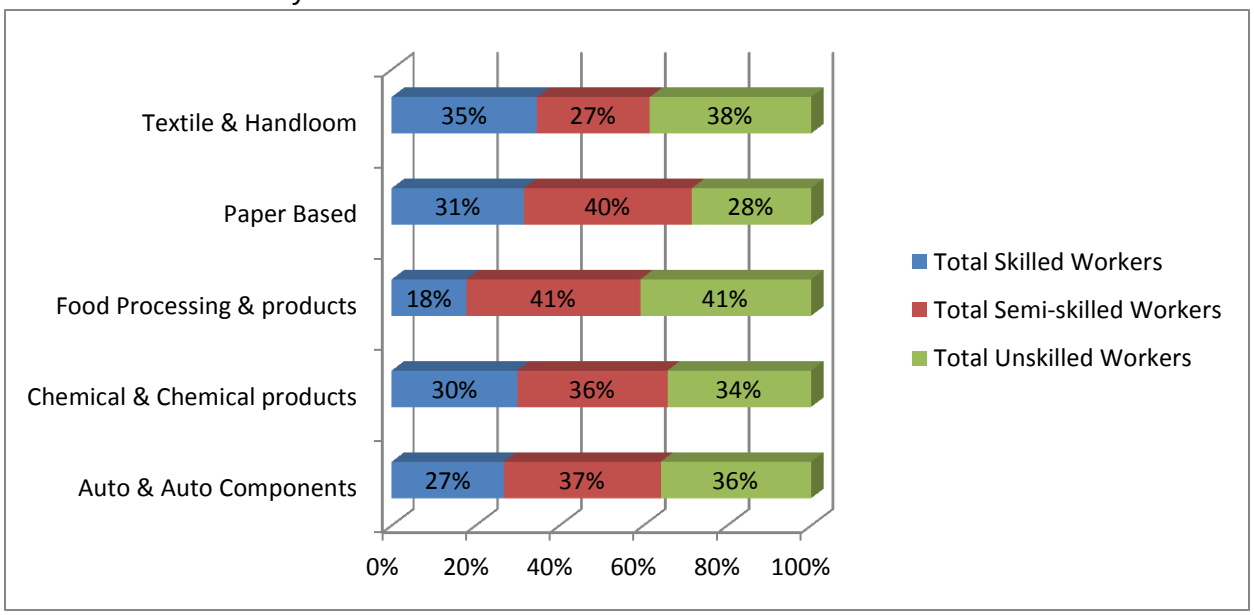


Figure 386 Sector wise current workforce distribution pattern across industries

In West Godavari, semi-skilled workers are the greatest in number, followed by minimally skilled and then skilled workers. Across all the five sectors represented in the sample, relatively large worker strength (of semi-skilled and minimally skilled workers) could be seen in the food processing sector.

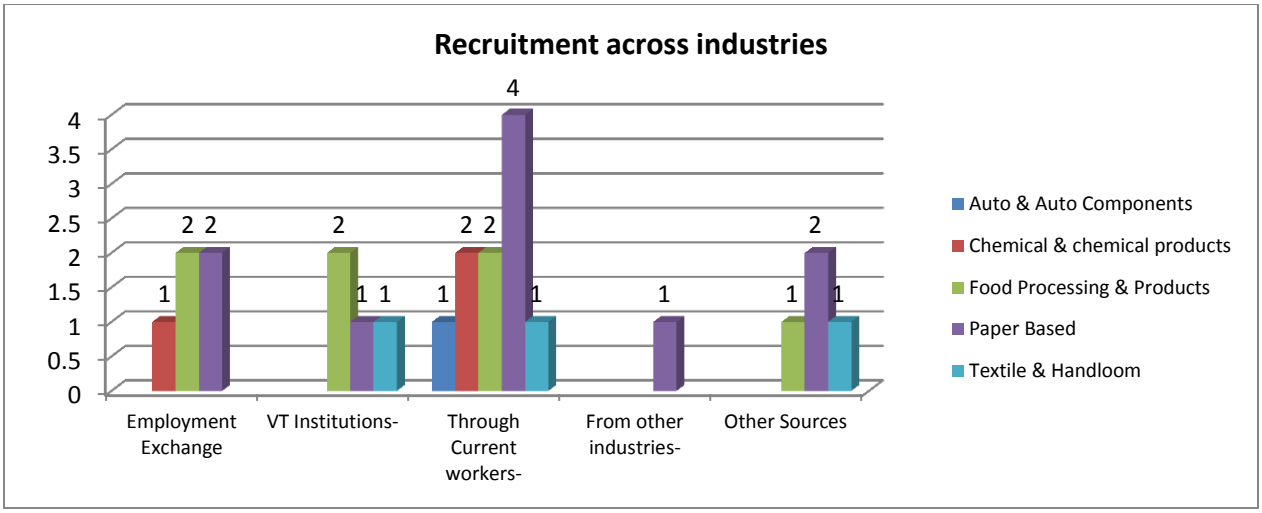


Figure 387 Sources of recruitment of current workers as per sample study

Recruitment largely happens through references provided by existing workers, through campus interviews or via employment exchanges. Unlike in many other districts, contractors do not appear to play a role in recruitment in West Godavari.

Incremental manpower demand over the years till 2021-22

In West Godavari, construction sector will be the largest employer of manpower over the years. Other sectors with high demand for manpower will be banking, real estate and service sector.

Table 221 Projection of Manpower requirements till 2022 across various Sectors

	2012-2017			2012-2022		
Industry	**Skilled**	**Semi-Skilled**	**Minimally Skilled**	**Skilled**	**Semi-Skilled**	**Minimally Skilled**
Agriculture & Allied Activities	1989	9946	37796	-4058	-20288	-77095
Mining & Quarrying	7166	4212	7442	7404	5817	7932
Construction	35966	42676	37144	40065	42927	64104
Tourism, Travel & Hospitality	59601	-15443	-17150	8443	3799	2533
Transportation, Logistics, Warehousing & Packaging	-2576	-1312	-437	-4293	-2187	-729
IT & ITES Sector	8030	841	153	8059	844	154
Banking & Financial Services Insurance	31261	4648	1571	25693	11562	7708
Real estate	6388	8108	3992	5328	5708	8524
Other Services	32019	-3203	-5097	12774	5781	3760
Electricity, gas & water supply	-1138	-662	-476	-1138	-683	-455
Food processing	-1588	-1500	-88	-1588	-953	-635

Chemicals & Pharmaceuticals*	459	156	302	459	275	184
Rubber and plastic products*	328	186	141	328	197	131
Auto & Auto components*	-93	-58	-34	0	0	0
Metals & non metallic products*	-1214	-748	-466	-1214	-728	-486
Textile & leather	-9865	-6044	-3821	-9865	-5919	-3946
Wood & Paper products	2526	1377	1149	2526	1516	1011
Total	169260	43180	62121	88923	47668	12694

*Manufacturing Sectors

4.23.9 Skill Gap Analysis

The skill gap analysis was performed by undertaking a survey. A structured questionnaire was designed to map current and the future skill requirements of the industries identified in West Godavari district. The analysis factored in industry linkages with vocational training institutes, the employment exchange, and other sources for workforce absorption and retention.

Table 222 Incremental Skill gap till 2022 in West Godavari district

Workforce Demand & Supply Gap						
	2012-2017			2017-2022		
Sectors	**Skilled**	**Semi-Skilled**	**Unskilled**	**Skilled**	**Semi-Skilled**	**Unskilled**
Demand	169260	43180	62121	88923	47668	12694
Supply	10301	7712	118449	4571	13052	110529
Gap	158959	35467	-56329	84352	34616	-97835

4.23. 10 Youth Aspirations

The youth survey was primarily undertaken through a survey. Structured questionnaires were used to capture youth aspirations and perceptions across the four categories of employed, self-employed, unemployed, and trainees.

In-depth interactions were held with respondents across the various categories in order to provide deeper insight.

The youth were covered from the categories of employed, self-employed, unemployed and trainees. Out of the respondents, 53 percent were college educated and 47% had completed high school education. All the respondents were from registered VTIs, with 29 percent coming from government institutes and 71 percent coming from private ones.

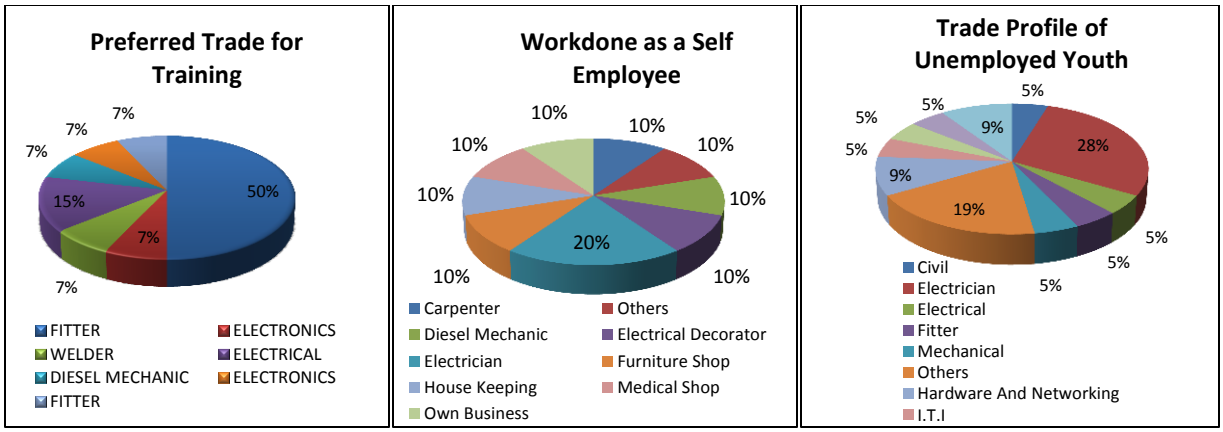


Figure 388 Profile of respondents (trainee, self-employed & unemployed youth) by trade in sample of West Godavari

Half of the respondents or 50 percent cited the fitter trade as their preferred line of work. Among those who were self-employed, 20 percent preferred the electricians' trade. The electricians' trade also accounted for 28 percent of those who were unemployed.

Parameters considered by District's youth while opting for vocational training

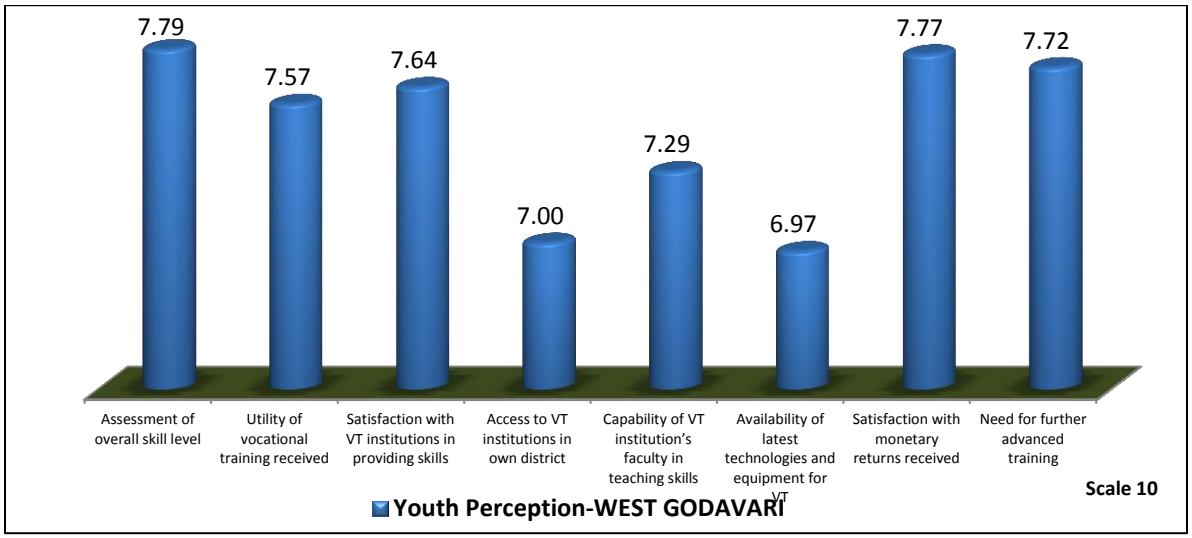


Figure 389 West Godavari Youth's perception, need and aspirations –Sample Group

The youth were also asked to rate their experiences with VTIs on a scale of 10. The respondents assessed their overall skill levels at a rating of 7.79. Surprisingly, the availability of the latest technologies and equipment at VTIs got the lowest rating of 6.97. However, 53 percent of those surveyed were unhappy with their current salary levels.

4.23.11 Recommendations: Skill Development Eco System

West Godavari is a major producer of rice and cotton in the country. Currently, the deployed manpower is not skilled in the use of new technologies to increase efficiencies and decrease wastage. Training partner with technical courses in milling, oil seed processing, supply chain management, marketing and storage should be encouraged in the district. The youth also needs to be trained in life skills, communication courses, and computer courses, to help them get

absorbed in upcoming industries. Following are the other key demand growth sector in the district:

Table 223 Key demand sector: West Godavari

Sectors	Growth Opportunities
Construction	• The construction sector is the highest contributor to the economy (42 percent) in secondary sector in 2009-10. • The district will require approx. 2.6 lakh manpower till 2021-22. • More industry specific courses are required in the district such as bar bending, masonry, etc.
BFSI	• BFSI is expected to contribute significantly to the creation of jobs in skilled segment. • The sector has witnessed a growth rate (CAGR) of approx. 13 percent from 2004-05 till 2009-10. • Trainings are required in new financial products, data entry and insurance sector. Special focus should be on rural banking.
Tourism, travel & hospitality	• The trade, hotels & restaurants contributed significantly (25 percent) to tertiary DDP in 2009-10. • Currently no courses are being focused on this sector thus more focus on training is required in this sector.

The key stakeholders' contribution in enabling to achieve this target would be as follows:

State: The district has well established educational and vocational training infrastructure though the percent of female literate population is very low in the district.

Action Plan:

a) The district already has large number of vocational training institutes present. State needs to upgrade these with better infrastructural facilities.
b) State must also focus in equipping few of the existing VTIs with state of art technologies for engineering and textile sectors.
c) State needs to build centre of excellence for various skill sets in order to ensure the quality as required by the industry.
d) State also needs to encourage enrolment of girls in vocational training by introducing favourable schemes and better infrastructure such as girls' hostels etc.

Training Partners: Owing the expected shift from agriculture sector to other industry of the district's manpower, training providers need to focus on specialized trades.

Action Plan:

a) Identify current skill set of the youth and provide them platform for horizontal mobility.
b) Build linkages with the industry
c) Build curriculum to enable youth for horizontal mobility in upcoming sector.
d) Identify upcoming Industries and build customized courses as per their requirements.

Industries: Currently, there are no linkages between the industry and training providers. Thus, industry is unable to absorb the current manpower because of lack of required skill sets.

Action Plan:

a) Collaborate with skill development institutes for updating course content & creating linkages for placement.
b) Industry needs to reward skilled manpower with higher wages. Promotions norms should be formed based of higher skill levels, encouraging the current semi-skilled and minimally skilled workers to take up-skilled courses.

NSDC: NSDC would be an enabler to lead the training partners in setting up skill development centres in upcoming sectors.

Action Plan:

a) Promote training providers to train in multiple skills.
b) Greater emphasis should be on trades which can support self-employment in agro based industries.
c) Develop platform to enable people in vertical and horizontal mobility in various skills.

Annexures

Questionnaire for Major Employers

1.0 Identification Block

1. Name of the establishment	
2. Address	
3. Contact number of the respondent	
4. Name of the respondent	
5. Designation of the respondent	
6. State & District Codes	
7. Supervisor / Investigator No.	

2.0 Establishment Details

• Year of establishment	
• Scale of establishment	Large / Medium / Small
• Type of establishment	Multi-national / Public Sector / Private Limited (Partnership firm) / (Single Ownership)
• Major Product(s)	
• Installed production capacity (units per month by product type)	
• Actual production (units per month by product type)	
Reason: Why the gap is existing between the Installed and actual production ; (Power shortage, Investment, manpower, water shortage)	
• Affiliation to unions	Yes / No

- If affiliated to unions, which major unions? Please list
    - _____
    - _____
    - _____

- Please list down various worker welfare schemes implemented, if any. (Please specify). If No, Please state the reason for same

List of Schemes/Welfare programs	**Yes/ No**
Additional schemes: Transport facility, housing, health, education schemes,	

- What are your major expectations from your workers in terms of the following parameters? Please rank on the scale of 1-5

Skills	**1** ☐	**2** ☐	**3** ☐	**4** ☐	**5** ☐
Loyalty	**1** ☐	**2** ☐	**3** ☐	**4** ☐	**5** ☐
Learning & Development	**1** ☐	**2** ☐	**3** ☐	**4** ☐	**5** ☐
Aspirations- Career growth	**1** ☐	**2** ☐	**3** ☐	**4** ☐	**5** ☐
Productivity & Efficiency	**1** ☐	**2** ☐	**3** ☐	**4** ☐	**5** ☐

3.0 Staff Deployment

Sl. No.	**Staff Type**	**Map against Skilled/ Minimally skilled & Semi skilled**	**Educational Qualification (BE/ B.Tech / B.Sc / BA, graduates & MBA/ PG)-1**	**No. at the time of establish-ment**		**Current Strength**		**Required Strength**		**% Attrition**		**Plans to expand strength**	
				M	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**
1	Senior Management												
2	Middle level Management												
3	Administration & Accounts												
4	Support Staff												
5	Full Time workers	Skilled											
		Semi-skilled											
		Minimally skilled											
6	Contract workers	Skilled											
		Semi-skilled											
		Minimally skilled											

7	Daily wages worker	Skilled												
		Semi-skilled												
		Minimally skilled												

4.0 Reasons for attrition: (retirement, better opportunities outside, layoffs, downsizing, technology upgradation)

1.

_____

_____

2.

_____

_____

3.

_____

_____

5.0 <u>Sources Used For Worker Recruitment</u>

Source	**Code**	**Source**	**Code**
Employment Exchange	**1**	From other industries	**4**
VT Institutions	**2**	Contractors	**5**
Through current workers	**3**	Other Sources (Pls. specify)	**6**

6.0 Type of Employment For Workers

Sl. No.	Staff Type	No. Full time		Average Wage Paid		Willingness to Increase Wages (Y/N)		No. Part time		Average Wage Paid		Willingness to Increase	
	Gender	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**
1	Skilled Workers												
2	Semi-skilled Workers												
3	Minimally skilled Workers												

7.0 Available Vacancies Information

Sr. No.	Category	Designation	Nature of Work		No. of vacancies	Educational Qualification	Skill Level required	Gender Specific	Average monthly wage
			Full Time	**Part Time**					
1	**Skilled**								
2	**Semi-Skilled**								
3	**Minimally skilled**								

8.0 Wage Structure for Full Time Workers

Sl. No.	Staff Type	Actual Wage per Day	Incentives					
			Housing (Yes / No)	Health Care (Yes / No)	Production Linked Bonus (Yes / No)	PF (Yes / No)	Insurance (Yes / No)	Others (specify)
1	Skilled Workers							
2	Semi-skilled Workers							
3	Minimally skilled Workers							

9.0 Skill requirement and availability

Sl. No.	Staff Type/ Designation	Type of Skills Required	Available Freely	Trained In-house	Required for Expansion
1					
2					
3					
4					
5					

Questionnaire for Labour Unions

1.0 Identification Block

1	Name of the Labour Union	
2	Registration No.	
3	Location (City / Town & District)	
4	Year of Establishment	
5	Affiliation	
6	No. of industries covered	
7	Key office functionaries	
	a) President	
	b) Vice-President	
	c) Secretary	
	d) Treasurer	
8	Name of the Respondent	
9	Designation of the Respondent	
10	State & District Codes	
11	Supervisor / Investigator No.	

2.0 Union Strength & Activities

Sl. No.	Type of Workers	No. of registered members		Strength at the time of establishment		Current Strength	
	Gender	**Male**	**Female**	**Male**	**Female**	**Male**	**Female**
1	Skilled Workers						
2	Semi-skilled Workers						
3	Minimally skilled Workers						
4	Daily Contract						

	Workers						

3.0 Key Activities of the Union

Sl. No.	Type of Activity	Involvement (Yes = 1 / No = 2)
1	Representing member workers at meetings with management	**1 / 2**
2	Enforcement of worker's rights in industries	**1 / 2**
3	Awareness generation on worker rights	**1 / 2**
4	Non-formal education of workers	**1 / 2**
5	Protection of workers from Contractors and Middlemen	**1 / 2**
6	Overall welfare of the workers	**1 / 2**
7	Health care for worker's families	**1 / 2**
8	Ensure minimum wages for workers	**1 / 2**
9	Ensure timely payment to workers	**1 / 2**
10	Education to worker's children	**1 / 2**
11	Housing for workers	**1 / 2**
12	Arranging cultural / religious programs for workers	**1 / 2**
13	Any other activity (please specify)	**1 / 2**

4.0 Worker Composition in Catchment Area

	Type of Workers	**Migrant**		**Local**	
Sl.	**Gender**	**Male**	**Female**	**Male**	**Female**

No.					
1	Skilled				
2	Semi-skilled				
3	Minimally skilled				

5.0 Major Districts from where migrant workers seek employment

Sr. No.	Name of the State	Name of the District	Approximate % of Workers		Major Trades
			Male	Female	
1					
2					
3					
4					
5					

Questionnaire for Vocational Training Institutes

1.0 Identification Block

1	Name of the VT Provider Institution	
2	Location address & Contact Nos.	
3	Registration No.	
4	Management (Government / Private, Large Institutions)	
5	Source of Funding	
6	Main trades covered	
7	Affiliation	
8	Type of certification issued (Single/ dual/ third party certification)	
9	Name of the Director	
10	Respondent Name	
11	Respondent Designation	
12	State & District Codes	
13	Supervisor / Investigator No.	

2.0 Manpower Availability for Management and Teaching

	Positions	**Number Sanctioned**		**Number Available**	
		Full Time	**Part Time**	**Full Time**	**Part Time**
1	Administration and Accounts				
2	Faculty (Mechanical Eng.)				

3	Faculty (Electrical Eng.)				
4	Faculty (Computer Eng.)				
5	Faculty (Other Trades)				
6	Support Staff				

3.0 Availability of Functional Infrastructure

	Type of Infrastructure	**Availability (Yes = 1 / No = 2)**
1	Own Buildings and Campus	
2	Uninterrupted Power Supply	
3	Piped Water Supply	
4	Furnished class rooms with teaching aids	
5	Well equipped laboratories	
6	Updated Technology	
7	Display of posters and drawings	
8	Hostel facility for boys	
9	Hostel facility for girls	
10	Commuting facility for trainees	

4.0 Trainee Absorption and Retention

		Trade - 1	**Trade - 2**	**Trade - 3**	**Trade - 4**	**Trade - 5**	**Trade - 6**
1	Sanctioned Trainee Strength by Trade						
2	Actual Trainee Strength by						

	Trade						
3	Male Trainees by Trade						
4	Female Trainees by Trade						
5	Drop-out Nos. (Male) by Trade						
6	Drop-out Nos. (Female) by Trade						
7	Average age of Male Trainees by Trade						
8	Average age of Female Trainees Trade						

5.0 Placement of Trainees by Trade

		Trade - 1	**Trade - 2**	**Trade - 3**	**Trade - 4**	**Trade - 5**	**Trade - 6**
1	Trainees Placed from Last Batch						
2	Placement through campus recruitment						
3	Placement through proactive approach to industry						
4	Placement through employment exchange						
5	Placement of project interns at industry						
6	Average starting pay package						

7	Placement within District						
8	Placement within State (other districts)						

6.0 Demand for Vocational Training

		Trade - 1	Trade - 2	Trade - 3	Trade - 4	Trade - 5	Trade - 6
1	Trainees in last passed out batch (2010-11)						
2	Trainees in 2009-10						
3	Trainees in 2008-09						
4	Trainees in 2007-08						
5	Trainees in 2006-07						
6	Expected / potential demand	**+ / -**	**+ /**	**+ / -**	**+ /**	**+ / -**	**+ /**

7.0 Selection of Course Components

	Logic for Inclusion in Course	**Yes = 1 / No = 2**
1	Demand from trainees	
2	Demand from the industry	
3	Mandated by the Board / University	
4	Based on available faculty strength	
5	Based on availability of facilities & equipment	
6	Other reasons	

Questionnaire for Youth Surveys

1.0 Identification Block

1	Name of the respondent	
2	Contact number of the respondent	
3	Age	
4	Gender	
5	Marital Status: 1) Married 2)Unmarried 3)Divorced	
6	Languages known	
7	State & District Codes	
8	Supervisor / Investigator No.	

2.0 Socio-economic Profile

1	Caste	SC = 1, ST = 2, OBC = 3, General = 4		
2	Respondent's address	State		
		District		
		Block / Mandal		
		Rural = 1 / Urban = 2		
		Name of the town / village		
3	Formal education received	High School = 1, College = 2		
4	Current Status	Trainee = 1		
		Employee = 2		

		Self employed = 3	
		Unemployed = 4	
5	Any family trade?	Yes = 1 / No = 2	
6	If yes for above, what is the trade?		
7	Does the respondent's family migrate for work?	Yes = 1 / No = 2	
8	If yes for above, what type of migration?	Seasonal = 1, As per need = 2	
9	Average distance of migration		
10	Origin and destination of migration	Origin District	
		Destination District	

3.0 Skill Profile

1	**If trainee,**	Name of the VT	
		Location of the VT	
		Government VT = 1, Private = 2	
		Year of joining VT	
		Expected year of completion	
2	Trade offered by VT for training (specify)		Code
3	Preferred trade for training (specify)		Code

4	Reasons for preference (specify)	
5	If trainee, years completed in training	
6	If trainee, specify trade specialization	

7	**If currently employed,**	Name of employee establishment	
		Address of employee establishment	
		Years of employment with current employer	
		Previous years of work experience	
		Current designation	
		Current responsibilities	
		Membership in workers union (Yes=1, No=2)	

8	**If self employed**	Years in self employment	
		Years of working previously as an employee (if applicable)	

		Type of work done as a self employee	
		Reasons for choosing self employment	
		Willingness to be employed (Yes = 1, No = 2)	
		If willing to seek employment, what are the reasons?	
9	**If unemployed,**	Years since unemployed	
		Reasons for unemployment	
		Trade in which trained	
		Preferred trade for training	
		Reasons for preference of trade	

4.0 Youth Perceptions

	Score	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**NA**
	Rated Parameters											
1	Assessment of overall skill level											
2	Utility of vocational training received											
3	Satisfaction with VT institutions in providing skills											
4	Access to VT institutions in own district											
5	Capability of VT institution's faculty in teaching skills											
6	Availability of latest technologies and equipment											

	for VT											
7	Satisfaction with monetary returns received											
8	Need for further advanced training											

5.0 Remuneration and Incentives

1	If employed or self employed, what is the approximate monthly income?	
2	Are you satisfied with the monthly amount received?	
3	If not satisfied with the current monthly income, how much do you feel should be the right amount for your skill level?	
4	If you are an employee, is there a system of annual increment for you? (Yes = 1, No = 2)	
5	If there is an annual increment, what is the per cent increase usually given?	
6	If you are an employee, do you get a production linked bonus? (Yes = 1, No = 2)	
7	If employed, do you get company benefits like health care, accident insurance, housing, children's education and any other benefits? (Yes = 1, No = 2)	
8	If yes for above, please list benefits received	

6.0 Preference for the Job location

Within District	
Outside District (But in State)	
Outside State	

Check-list for In-depth Interviews with District Level Officials

State	
District	
Block	
Interview Location	
Date	
Starting Time	
Name of the Interviewer	
Name of the respondent	
Designation	
Department	
Contact No.	

Issues for Discussion

1. Given the requirements for industrial growth in the district, do you think that the current situation is conducive enough to support industrial growth across sectors in terms of resource availability (investments, land, water, power, skilled manpower, etc.)?

2. The state government has invested in developing a base of skilled workers through government and private vocational training institutions across the state. Do you think that the base of skilled youth so prepared is meeting the required standards for the needs of the growing industrial sectors in your district? If no, why do you feel so? What needs to be done to rectify the situation?

3. What do you think is the current demand for skilled workers across the various sectors and levels of industry such as small, medium and large in your district?

4. What do you think is the scope for self employment and entrepreneurship in your district? What are the current efforts by the district and what are the steps that are still to be undertaken?

5. Which are the predominant and emerging sectors in your district? Do you think that the emergence and growth of these sectors is sustainable enough to absorb new manpower? If no, why do you feel so?

6. Which is the most emerging sector in your district to absorb skilled manpower?

7. Do you feel that the informal sector offers more opportunities for skilled manpower compared to the formal sectors? If yes, why do you feel so? Can there be a balance between the formal and informal sectors in absorbing skilled manpower? If yes, how can this be obtained? If no, what are the reasons for an imbalance?

8. How do you think will be the trends of demand and supply for manpower (private as well as government) over the next three years to come?

9. Do you think that currently there are gaps between the demand from the industry and the supply of required manpower? If yes, why do you feel so?

10. In your view, which are the most successful efforts from the government's side at providing a supply of skilled manpower to meet the demands of the industry?

11. What will be the requirement of Class C & D employees (such as plumbers, gardeners, drivers, office assistants, etc.) for your district over the next three years?

List of industries interviewed in primary survey

Sl. No.	DISTRICT	Name Of The Establishment	Address	Name Of The Respondent	Designation Of The Respondent
1	Adilabad	SRI MEENAKSHI AGRE INDUSTRIES	38,INDUSTRIAL AREA NEAR SPINNING MILL	KAMAL KISHORE	MANAGING PARTNER
2	Adilabad	SRINIVASA ZONI CERAMICS	ANDUGULAPET MANDAMARRI	SUDHAKARREDDY	MANAGER
3	Adilabad	M/S.SAIKRISHNA TILE & RCC PIPES AND FLY ASH BRICKS	PEEGALPAHED, MANCHERIAL	E.THIRUPATHI	PROPROTER
4	Adilabad	SHALIVAHANA GREEN ENERGY LTD	SURVEY NO 176, OLD, MANCHERIAL,RANGAMPET ROAD	E.MOULISAM	PLANT MANAGER
5	Adilabad	JAGADAMBA OIL INDUSTRIES	RAMPUR PONNERI ROAD	DEEPAK AGARWAL	PROPROTER
6	Adilabad	ADILABAD CEMMENT	NH.44-MAVALA	NARSIHA REDDY	MANAGER

Sl. No.	DISTRICT	Name Of The Establishment	Address	Name Of The Respondent	Designation Of The Respondent
		PIPES INDUSTRIES			
7	Adilabad	SRI MAHALAXMI COTTON MILLS	SY.NO.63,NEAR RURAL POLICE STATION RAMPUR ROAD	G.VILAS KUMAR	MANAGING PARTNER
8	Adilabad	SREE JAGADAMBA GINNING & PRESSING PVT LTD	SY.NO 26/ARAMPUR ROAD	RAJUKUMAR AGARWAL	PROPROTER
9	Adilabad	BALAJI CEMMENT PIPES INDUSTRIES	SOFE NAGAR, NIRMAL	RAMANA REDDY	MANAGER
10	Adilabad	NIRMAL TOYS & ETS INDUSTRIES CO-OP.SOCITY LTD	NEAR MPDO OFFICE,NIRMAL	B.R.SHANKAR	MANAGER
11	Adilabad	VISHNU CEMMENT PRODUCTS	INDUSTRIAL AREA SOFINAGAR,NIRAMA	M.MALLESH GOUD	INCH.MANAGER
12	Adilabad	ROOM FLY ASH BRICKS MANUFACTURING WORKS	BARUDAGUDA, KHAGAZNAGAR	MUKTAR AHMED	PROPROTER
13	Adilabad	SUFIYEN FLY ASH BRICKS INDUSTRY	HIGHWAY ROAG VANJEER,KAGAZNAGAR	SYED MAINODDIN	MANAGER
14	Adilabad	SATYANARAYANA INDUSTRIES	PONNELI,THEMDI	LALITH AGARWAL	PROPROTER
15	Adilabad	M/SSREE ASTALAKSHMI SPINNING MILLS (P) LTD.	SURVEY NO.38,LIGHT INDS.AREA,ADILABAD	V.S.JAYARAJAN	GENERAL MANAGER
16	Adilabad	GLOBELCERAMICS	REPALLIWADA, TANDOOR MANDAL	MD.DAVUDULLAH KHAN	MANAGER
17	Adilabad	ORIENT CEMENT COMPANY P.LTD	DEVAPUR, MANCHERYAL	M.SUBBARAO	H.R.MANAGER
18	Adilabad	SRI VENKATESHW	KOSINI, KAGHAZNAGA	Y.VENKATESHWARA RAO	PROPROTER

Sl. No.	DISTRICT	Name Of The Establishment	Address	Name Of The Respondent	Designation Of The Respondent
		ARA CEMENT BRICKS WORKS	R		
19	Adilabad	DHAVA LAXMI TRANSFARMERS(INDIA)	VEMPALLY,SIRIPUR	RAKESH AGARWAL	PROPROTER
20	Adilabad	SRI SRINIVASA CERAMICS	REPALLEWADA, THANDOOR	D.YELAMANDA	MANAGER
21	Adilabad	SAI GLOBAL FLY ASH BRICKS	KAGHAZNAGAR X-ROAD, REBBENA	SATHISH KUMAR	PROPROTER
22	Adilabad	MODREN FLY ASH BRICKS	BURUDAGUDA, KAGHAZNAGAR	AMJAT KHAN	PROPROTER
23	Adilabad	THIRUMALA VENKATESHWARA PAPER MILL P.LTD	ANDUGULAPET,MANDAMARRI	PURSHOTHAM GHANDI	PARTNER
24	Adilabad	REALIABLE PAPER PRODUCTS	NERPALLY,REBBANA MAHDAL	V.SANGEETHA	MANAGER
25	Anantapur	Wipro Infrastructure Engineering 226& 226/D IDA, APIIC	Thumukunta	K.Prakash	
26	Anantapur	Super Spinning Mills (B)	Kottur, Hindupur Mandal	Purushotham Reddy	S.M. (HR)
27	Anantapur	Texport Industries Pvt.Ltd	Plot #261, Sy.No. 132/1 & 136/2, APIIC Industrial Park, Hindupur, Anantapur PIN-515211	Vidya Sagar	DGM HR & Legal
28	Anantapur	Cotton World	S.Sathlapalli, Hindupur	Bhudeva Reddy	Management
29	Anantapur	EXEL RUBBER LIMITED	SYNO. 62/2, 62/3, 464/2, DEVARAPALLI, THUMUKUNTA, HINDUPUR	RAJA REDDY	MANAGER HR & ADMIN
30	Anantapur	HINDUPUR STEEL & ALLOYS (P) Ltd.	PLOT NO.29, INDUSTRIAL PARK, APIIC, GOLLAPURAM HINDUPUR	AHAMATHULLA	EXTERNAL AFFAIRS
31	Anantapur	AZAD ISPAT	PARK,	SYED HAMEED	MANAGER

Sl. No.	DISTRICT	Name Of The Establishment	Address	Name Of The Respondent	Designation Of The Respondent
		INDIA PVT. LTD	GOLLAPURAM, HINDUPUR		
32	Anantapur	SUPER SPINNING MILLS LIMITED	M.BEAREPALLI, HINDUPUR 515212	Y.K.RATHNAM	UNIT HEAD
33	Anantapur	VEDIK ISPAT PVT. LTD	PLOT NO.30, APIIC, GOLLAPURAM, HINDUPUR	RAJENDRA KUMAR	GENERAL MANAGER
34	Anantapur	HINDHUPUR MILK CHILLING CENTRE	HINDHUPUR, RAMANTHAPUR	P.RAJAMOHAN	B.TECH-PS
35	Anantapur	SAI KRISHNA OXYGEN GASES	189&198, IDA THUMMAKUNTA,HDP	SURYANARAYA REDDY	MANAGER
36	Anantapur	ESWAR RUBBER PRODUCTS	SOMANAPALLY ,PENUKONDA5 15110	K.RAJAMANI	MANAGER
37	Anantapur	SUPER PLASTIC	S.Sathlapalli, Hindupur	S.PEERANSAD	MD
38	Anantapur	SRI VENKATESWARA AGENCES IOC DEALER P.K.D. ROAD,HINDHUPUR	SRI VENKATESHWARA AGENCES IOC	D.S.NAGARAJU	PARTNERSHIP
39	Anantapur	B.SRIKANTAIAH FILLING STATION	B.SRIKANTAIAH FILLING STATION HINDUPUR PKD ROAD,515201	B.S.KASIVISHWANATH	PROPERETOR
40	Anantapur	K.C.MANI & SONS HPC DEALER, PKD,HINDUPUR	K.C.MANI & SONS HPC DEALER, PKD,HINDUPUR,515201	K.RENUKA	PROPERETOR
41	Anantapur	TREADSDIRECT LTD	APIIC YND AREA S.SPALI HINDUPUR	A.N.GOVINDA REDDY	INCHARGE
42	Anantapur	VAKKALA IMPEX PVT.LTD	78DEVARAPALLY,HINDUPUR, 515211	V.ARUNKUMAR	LIASON OFFICER
43	Anantapur	GANESH FOOD PACKAGES	S.Sathlapalli, Hindupur,SEED NO F-4	R.J.VENKATESH BABU	MD
44	Anantapur	ARUNACHALA	S.SPALI-11-740	J.BHASKAR NAIDU	PROPERETOR

Sl. No.	DISTRICT	Name Of The Establishment	Address	Name Of The Respondent	Designation Of The Respondent
		KANCRTICHRIKS			
45	Anantapur	SUPER SPG.MILKS LTD(B)	KOTHA NEAR HINDUPUR ATD	PURUSOTHAM REDDY S.M. (HR)	S.M. (HR)
46	Anantapur	M/S MANTHRA SOAP WORKS	S.S PALI HINDUPUR	M.NATRAJ	PROPERETOR
47	Chittoor	RACHANA INDUSTRIES	FLOT NO 9 INDUSTRIAL ESATE , TIRUPATHI 517506	A.RAVINDRA MATHA REDDY	MANAGER
48	Chittoor	SIBAR AUTO PARTS LIMITED INDUSTRIAL ESTATE	RENIGUNTA ROAD 517506	M.VINAYAGAM	MANAGER
49	Chittoor	TINI PHARMA LTD	A-36 A.P.I ESTATE SETTIPALLI , TIRUPATHI , 517506	K.RAVINDRAMADA REDDY	MANAGER
50	Chittoor	GOWRI VENTURES PVT LTD	PLOT NO 62 (B) PART II , APIIC INDUSTRIAL PARK GAJULARAMARAM . RENIGUNTA MADDAM TIRUPATHI	HARISH KR	ASST MENAGER GR
51	Chittoor	AMRUTA APPAREL PVT LTD	14-50 KARAKAMBADI ROAD R.S COMPOUND TIRUPATHI, 517507	A.S RAMI REDDY	MANAGER DIRECTOR
52	Chittoor	LANCO STEELS LTD.	RACHAGUNNERI (V), SRIKALAHASTI, CHITTOOR	M.RAJU	JR.G.M.-HR
53	Chittoor	SRI VENKATESWARA CROP. SUGARS PVT . LTD	GAJULAMANDAYAM, RENIGUNTA , CHITTOOR DIST	L.V.RAMESH NAIDU	DY.MANAGER
54	Chittoor	SRI RAMA KRISHNA MILLS PVT LTD	V.K.R PURAM , CHITTOOR DIST	B.BRAHMANANDA REDDY	DY.MANAGER

Sl. No.	DISTRICT	Name Of The Establishment	Address	Name Of The Respondent	Designation Of The Respondent
55	Chittoor	PRAKASH FABRICATION PRODUCTS PVT LTD	IDA, RENIGUNTA - 517520	P.MUNI CHANDRA BABU	DY. MANAGER
56	Chittoor	LAKSHMI PRIYANKA SURGICALS	19-12-226 , UP-STAIRS OF INDIAN BANK , BAIRAGI PATTEDA, TIRUPATI - 517501	M.HARINATH KUMAR	HR - MANAGER
57	Chittoor	SRI VENKATESWARA SPONGE & POWER PVT.LTD	YERPEDU MANDAL, CHITTOOR DIST	B.BRAHMANANDA	DY.MANAGER (ELE)
58	Chittoor	LANCO INDUSTRIES LTD	RACHAGUNNERI (V), SRIKALAHASTI, CHITTOOR	DORAIRAJ	JT.G.M-HR
59	Chittoor	SRI VANI INDUSTRIES	81/2 GURAVARAJU PALLI	SURYA NARAYANA	MANAGER
60	Chittoor	DORA PLASTICS PVT LTD	PLOT NO 31 INDUSTRIAL ESTATE SATTI PALLI, THIRUPATHI	K.MANOHAR NAIDU	G.M FINANCE
61	Chittoor	THIRUPATHI COTTON MILLS	S.N PURAM, RENIGUNTA	K.BALA SUBRAMANYAM	GENERAL MANAGER
62	Chittoor	MALLADI DRUGS & PHARMACEUTICALS LIMITED	PLOT NO 49,50,55 & 56, IDA, GAJULAMANDYAM, ATHURU POST, RENIGUNTA MANDAL , CHITTOR DIST , ANDHRA PRADESH - 517520	P.PRABHAKARAN	VICE PRESIDENT
63	Chittoor	SNEHA VINYA PRODUCTS PVT LTD	IDA , RENI GUNTA - 517520	J.V.V. DURGA PRASAD	MANAGING DIRECTOR
64	Chittoor	SRI VARSHA FOOD PRODUCTS	S.N PURAM ,PUTTURU ROAD, RENI	R.SHIVAJI RAO	HR

Sl. No.	DISTRICT	Name Of The Establishment	Address	Name Of The Respondent	Designation Of The Respondent
		INDIA LTD	GUNTA - 517520, CHITTOR DIST		
65	Chittoor	CO-COLA BEVAREGES PVT. LTD	RACHAGUNNEI C, SRIKALAHASTI	SIVA KANTH	H.R.MANAGER
66	Chittoor	HERITAGE FOODS (INDIA) LTD	KASIPENTALA (VILLAGE) CHANDRAGIRI (M) CHITTOOR ROAD	S.VENU NAIDU	SALES MANAGER
67	Chittoor	KESHAVA FABRICS (P) LTD	PLOT 31, INDUSTRIAL ESTATE, SETTIPALLE, RENIGUNTA ROAD, TIRUPATI	K.MANOHAR NAIDU	G.M FINANCE
68	Chittoor	NILE LIMITED	PLOT NO.38 & 40 INDUSTRIAL PARK-GAJULAMANAY AM - RENIGUNTA	P.KARTHIK HR	HR
69	Chittoor	KESHAVA PLASTICS	36 INDUSRIAL ESTATE, SETTIPALLE (POST) TIRUPATI	K.MANOHAR NAIDU	G.M FINANCE
70	Chittoor	JAGADEESH FOOD PACKS (P) LTD	31, INDUSTRIAL ESTATE, SETTIPALLI, TIRUPATI	K.MANOHAR NAIDU	G.M FINANCE
71	Chittoor	SUDALAGUNTA SUGARS LTD	MAYURANAGA R, KATUR (UXPOST) BONKANDRIGA (M) CHITTOOR	P.GURUNATHA RAO	G.M FINANCE
72	Chittoor	ANDAL FERRO CAST	APIIC, INDUSTRIAL ESTATE A4,A5 RACHAGUNNE RI SRIKALAHASTI, CHITTOOR	RAMU	HR MANAGAR
73	Chittoor	RAYALASEEMA CEMENT	30, INDUSTRIAL	G.SASEENDRA	HR MANAGAR

Sl. No.	DISTRICT	Name Of The Establishment	Address	Name Of The Respondent	Designation Of The Respondent
		PRODUCTS PVT. LTD	ESTATE, RENIGUNTA, CHITTOOR		
74	Chittoor	RACHANA INDUSTRIES	FLOT NO 9 INDUSTRIAL ESATE , TIRUPATHI 517506	A.RAVINDRA MATHA REDDY	MANAGER
75	Chittoor	SIBAR AUTO PARTS LIMITED INDUSTRIAL ESTATE	RENIGUNTA ROAD 517506	M.VINAYAGAM	MANAGER
76	Chittoor	TINI PHARMA LTD	A-36 A.P.I ESTATE SETTIPALLI , TIRUPATHI , 517506	K.RAVINDRAMADA REDDY	MANAGER
77	Chittoor	GOWRI VENTURES PVT LTD	PLOT NO 62 (B) PART II , APIIC INDUSTRIAL PARK GAJULARAMAR AM . RENIGUNTA MADDAM TIRUPATHI	HARISH KR	ASST MENAGER GR
78	Chittoor	AMRUTA APPAREL PVT LTD	14-50 KARAKAMBADI ROAD R.S COMPOUND TIRUPATHI, 517507	A.S RAMI REDDY	MANAGER DIRECTOR
79	Chittoor	LANCO STEELS LTD.	RACHAGUNNE RI (V), SRIKALAHASTI, CHITTOOR	M.RAJU	JR.G.M.-HR
80	Chittoor	SRI VENKATESWA RA CROP. SUGARS PVT . LTD	GAJULAMANDA YAM, RENIGUNTA , CHITTOOR DIST	L.V.RAMESH NAIDU	DY.MANAGER
81	Chittoor	SRI RAMA KRISHNA MILLS PVT LTD	V.K.R PURAM , CHITTOOR DIST	B.BRAHMANANDA REDDY	DY.MANAGER
82	Chittoor	PRAKASH FABRICATION PRODUCTS PVT LTD	IDA, RENIGUNTA - 517520	P.MUNI CHANDRA BABU	DY. MANAGER

Sl. No.	DISTRICT	Name Of The Establishment	Address	Name Of The Respondent	Designation Of The Respondent
83	Chittoor	LAKSHMI PRIYANKA SURGICALS	19-12-226 , UP-STAIRS OF INDIAN BANK , BAIRAGI PATTEDA, TIRUPATI - 517501	M.HARINATH KUMAR	HR - MANAGER
84	Chittoor	SRI VENKATESWARA SPONGE & POWER PVT.LTD	YERPEDU MANDAL, CHITTOOR DIST	B.BRAHMANANDA	DY.MANAGER (ELE)
85	Chittoor	LANCO INDUSTRIES LTD	RACHAGUNNERI (V), SRIKALAHASTI, CHITTOOR	DORAIRAJ	JT.G.M-HR
86	Chittoor	SRI VANI INDUSTRIES	81/2 GURAVARAJU PALLI	SURYA NARAYANA	MANAGER
87	Chittoor	DORA PLASTICS PVT LTD	PLOT NO 31 INDUSTRIAL ESTATE SATTI PALLI, THIRUPATHI	K.MANOHAR NAIDU	G.M FINANCE
88	Chittoor	THIRUPATHI COTTON MILLS	S.N PURAM, RENIGUNTA	K.BALA SUBRAMANYAM	GENERAL MANAGER
89	Chittoor	MALLADI DRUGS & PHARMACEUTICALS LIMITED	PLOT NO 49,50,55 & 56, IDA, GAJULAMANDYAM, ATHURU POST, RENIGUNTA MANDAL , CHITTOR DIST , ANDHRA PRADESH - 517520	P.PRABHAKARAN	VICE PRESIDENT
90	Chittoor	SNEHA VINYA PRODUCTS PVT LTD	IDA , RENI GUNTA - 517520	J.V.V. DURGA PRASAD	MANAGING DIRECTOR
91	Chittoor	SRI VARSHA FOOD PRODUCTS INDIA LTD	S.N PURAM ,PUTTURU ROAD, RENI GUNTA - 517520, CHITTOR DIST	R.SHIVAJI RAO	HR
92	Chittoor	CO-COLA	RACHAGUNNEI	SIVA KANTH	H.R.MANAGER

Sl. No.	DISTRICT	Name Of The Establishment	Address	Name Of The Respondent	Designation Of The Respondent
		BEVAREGES PVT. LTD	C, SRIKALAHASTI		
93	Chittoor	HERITAGE FOODS (INDIA) LTD	KASIPENTALA (VILLAGE) CHANDRAGIRI (M) CHITTOOR ROAD	S.VENU NAIDU	SALES MANAGER
94	Chittoor	KESHAVA FABRICS (P) LTD	PLOT 31, INDUSTRIAL ESTATE, SETTIPALLE, RENIGUNTA ROAD, TIRUPATI	K.MANOHAR NAIDU	G.M FINANCE
95	Chittoor	NILE LIMITED	PLOT NO.38 & 40 INDUSTRIAL PARK-GAJULAMANAYAM - RENIGUNTA	P.KARTHIK HR	HR
96	Chittoor	KESHAVA PLASTICS	36 INDUSRIAL ESTATE, SETTIPALLE (POST) TIRUPATI	K.MANOHAR NAIDU	G.M FINANCE
97	Chittoor	JAGADEESH FOOD PACKS (P) LTD	31, INDUSTRIAL ESTATE, SETTIPALLI, TIRUPATI	K.MANOHAR NAIDU	G.M FINANCE
98	Chittoor	SUDALAGUNTA SUGARS LTD	MAYURANAGAR, KATUR (UXPOST) BONKANDRIGA (M) CHITTOOR	P.GURUNATHA RAO	G.M FINANCE
99	Chittoor	ANDAL FERRO CAST	APIIC, INDUSTRIAL ESTATE A4,A5 RACHAGUNNERI SRIKALAHASTI, CHITTOOR	RAMU	HR MANAGAR
100	Chittoor	RAYALASEEMA CEMENT PRODUCTS PVT. LTD	30, INDUSTRIAL ESTATE, RENIGUNTA, CHITTOOR	G.SASEENDRA	HR MANAGAR
101	East	SRIVATHSA	SIVAKODU	K.SATYANARAYANA	PLANT

Sl. No.	DISTRICT	Name Of The Establishment	Address	Name Of The Respondent	Designation Of The Respondent
	Godavari	POWER PROJECT LTD	(VILL) , RAZOLE (MANDAL) , E.G DIST		MANAGER
102	East Godavari	SRI RAMADAS PAPER BOARD PVT LTD	JEGURUPADU	K.V SESHA KUMAR REDDY	PERSONAL OFFICER
103	East Godavari	NATURAL GANGA WATER INDUSTRIES	PLOT NO 222 , IDA (ESP) , PHASE II , KAKINADA	B.K GANDHI	OWNER
104	East Godavari	SIVA KALYANI PAPER LTD	5-47 , JAGURUPADU , KADIYAM MANDAL	A.KOTESWARA RAO	PRODUCTION MANAGER
105	East Godavari	CARGILL INDIA PVT LTD	625 , ADB ROAD , RANGAMPETA EAST GODAVARI , RAJAMUNDRY	VENKATA RAJENDRA PRASAD , MANTHENA	MANAGER HR
106	East Godavari	ISHWARAYYA PET INDUSTRIES	ISHWARAYYA PET INDUSTRIES PLOT NO16 , IDA RAMANAYAPET . KAKINADA	KASI VISHWANAD RAJU	OWNER
107	East Godavari	SUDHA AGRORIL & CHEMICAL INDUSTRIES LTD	P.B NO 9 SAMARLKOT , E.G.DT 533440	M.NARASHIMHA RAO	GENERAL MANAGER
108	East Godavari	K.P.R FERTILISERS LTD	S.NO 24/2 . NALLAMILLI ROAD BICCAVOLU - 533343 , EAST GODAVARI DISTRICT ANDHRA PRADESH	MR.Y.KALIDAS	MANAGER HR
109	East Godavari	M/S ARANI AGRO OIL PVT. LTD	KAKINADA, E.GODAVARI	KUMAR	HR MANAGER
110	East Godavari	VENKATA RAMANA OIL INDUSTRY	MADAPET, KAKINADA, E.GODAVARI	N.NAGA BABU	HR
111	East	M/S SAVARANA	KADIUM,	G.NAGESWAR RAO	HR

Sl. No.	DISTRICT	Name Of The Establishment	Address	Name Of The Respondent	Designation Of The Respondent
	Godavari	SUGARS PVT LTD.	ANAKAPALLY, EAST GODAVARI		
112	East Godavari	VINAYAKA PAPER BOARD PVT. LTD	KADIUM, EAST GODAVARI	GANESH	MD
113	East Godavari	M/S COASTAL PAPER MILLS PVT. LTD	KADIUM	G.RAMANA	HR MANAGER
114	East Godavari	AVANTHI SEA FOODS	GOPALPURAM, KAKINADA, EAST GODAVARI	N.CHIDAMBAR	HR MANAGER
115	East Godavari	ANDHRA ELECTRICITY PVT. LTD.	KAKINADA INDUSTRIAL AREA, EAST GODAVARI	M.V.V.SATYANARAYANA	HR
116	Guntur	SRI LALITHA PARAMESWARI SPINNING MILLI	NARAKODURU , TENALI , CHETOROLU MANDAL , GUNTUR	SURYA NARAYANA	MD
117	Guntur	GAJAVALLI SPINNING MILLS PVT LTD	CHELBROL ROST , GUNTUR	JASTIY RAMA RAO	GENARAL MANAGER
118	Guntur	SRI NUKALA RAMA KOTESWARA RAO TEX TAILES PVT LTD	CHEBRALU , GUNTUR	G.BALAJI	GENARAL MANAGER
119	Guntur	SRI JAYALASKHMI SPINNING MILL	CHEBROLU , GUNTUR	RAYAPATI RANGA RAO	CHIEF EXCUTIVE M.D
120	Guntur	SRI VENKATA SIVA PARVATHI SPINNING MILL	CHEBROLU , GUNTUR	G.KISHOR BABU	VICE PRESIDENT
121	Guntur	SRI VENKATESWARA GINNING MILL UNIT 1	NH 5 ETUKAR BAIPOR BEHEND SUTY DEVAREY WAI BIDG	ATLURI MOHAN	MANAGING DIRECTOR
122	Guntur	NNR COTTON GINNING MEALS	BONTHAPADU ROAD NH5 , GUNTUR	NIMMAGADDA NAGESWARA RAO	PROPRIETOR
123	Guntur	TIRUMALAVASA CLEENING MISSION	GUNTUR	VASU	M D

Sl. No.	DISTRICT	Name Of The Establishment	Address	Name Of The Respondent	Designation Of The Respondent
124	Guntur	LAKSHMI SRI PADMAVATHI COTTON MILLI	NH 5 BAIPAR ROAD GUNTUR	N.CHANDA SEKHAR	PROPRIETOR
125	Guntur	PSR SAMS COULD STORAGE VADLAMIDI	CHEBROLU MANS GUNTUR	P.UMA SHANKAR	M.D
126	Guntur	KUMAR PAMPULU VADLAMUDI	CHEBROLU MANDAL GUNTUR	CH.VENKATESWARA RAO	SENIOR EXUCUTIVE
127	Guntur	SANGAM DAIRY MILK PRODUCERS MUTUALLY AIDED	CO - OPERATIVE UNION LIMITED VADLAMUDI GUNTUR	K.GOPINATH	MANAGING DIRECTOR
128	Guntur	SRI LAKSHMI GODAVARI SPINNING MILK PVT LTD	CHEBROLU POST , GUNTUR	K.SOMASEKHAR VARMA	GENARAL MANAGER
129	Guntur	PAVAN SAI SPINING MILL PVT LTD	NEAR KODURU , TENALI ROAD , GUNTUR	SRINIVASARAO	MANAGER
130	Guntur	AP. MILLS PVT. LTD	CHEBROLLU , GUNTUR	N.SIVA SHANKAR RAO	GENARAL MANAGER
131	Hyderabad	GOOD HEALTH AGRO TECH. LTD	1-8-663, AZAMABAD INDUSTRIAL AREA, HYDERABAD	M.SATHISH KUMAR	HR MANAGER
132	Hyderabad	SWASTIC VEGETABLE OIL PRODUCTS PVT.	18-2-45/2, CHANDRAYAN AGUTTA, HYDERABAD	HARI KRISHNA	HR
133	Hyderabad	KEDIA VANASPATI PVT. LTD	48, MAHABUB MANSAN KRUPA MARKET, MALAKPET, HYD	N.SANJAY	HR
134	Hyderabad	ASSITATITU BUSINESS SOLUTIONS PVT. LTD	LIBERTY ROAD, LOWER TANK BUND, HYDERABAD	K.SRINIVASA REDDY	MD
135	Hyderabad	AMRUTA MILK PRODUCTS LTD.	3-20, AUTO NAGAR, SAROORNAGAR, HYDERABAD	M.SASTRY PRAKASH	HR
136	Hyderaba	NANDI	13-6-744,	N.KUMAR	DIRECTOR

Sl. No.	DISTRICT	Name Of The Establishment	Address	Name Of The Respondent	Designation Of The Respondent
	d	POLYMERS PVT. LTD	KARVAN, HYD		
137	Hyderaba d	SMART SOFTWARE TECHNOLOGY DEVELOPMENT P.LTD	307, MYTRIVANAM, HUDA COMPLEX, S.R.NAGAR, HYDERABAD	N.MADAN MOHAN	MANAGER
138	Hyderaba d	SATYAM VENTURE ENGINEERING PVT. LTD.	1-8-301, 3RD, ASHOK CHAMBERS, S.P.ROAD, SECUNDERAB AD	B.MOSES	HR MANAGER
139	Hyderaba d	BANJARA AGRO PVT. LTD	6-3-456/17/1, DWARAKAPURI COLONY, PANJAGUTTA, HYD	MD.ALAM KHAN	DIRECTOR
140	Hyderaba d	FENNER (INDIA) LTD	46, SAROJINIDEVI ROAD, SECUNDERAB AD	CH.SANDHYA VANI	DIRECTOR
141	Hyderaba d	NOVARTIS HEALTH CARE PVT. LTD	64, RAHEJA MIND SPACE, HITECH CITY, HYD	NANDA KISHORE	DIRECTOR
142	Hyderaba d	SRI AMARNATH INDUSTRIES	13-3-1050/21, JAYAGUDA, KARWAN, HYD.	RAVI GUPTA	DIRECTOR
143	Hyderaba d	SUPREME CHEMICALVEN TURES PVT LTD.	A-10 INDUSTRIAL AREA MOULALI HYD	J V SESHDRI	ACCTS MANAGER
144	Hyderaba d	JASLEEN ENTEPRISES	PLOT 1E STREET NO 11, MOULALI,FDA R.R	VIJAYA	ACCTS MANAGER
145	Hyderaba d	SREE SAI SINDHURA POLY PRODUCTS	B-11/2 IRA, MOULALI	N.LAVA VARMA	MANAGER
146	Hyderaba d	BHARATH STEEL INDUSTRIAL PVT.LTD	B-15,IDA,MOULAL I	MD.ASIF UMRAN	MANAGER
147	Hyderaba	DECCAN IRON	12-	S.PRASAD	MANAGER

Sl. No.	DISTRICT	Name Of The Establishment	Address	Name Of The Respondent	Designation Of The Respondent
	d	INDUSTRIAL PVT.LTD	117/5,AMEERPET,6TS ROAD		
148	Hyderabad	BHARATHI IT SOLUTIONS	BALAJI TOWN,RAMKOTI	RAJENDER KUMAR SRUTHI	DIRECTOR
149	Hyderabad	SHRI SHANTINATH METAL INDUSTRIALS	2-3-724/5,AMBERPET,500038	G.NARSIMHA RAO	ACCTS MANAGER
150	Hyderabad	KARKHANA ZINDA TILISMATH	2-3-728,AMBERPET,500013	MD.SAAD FAROOQUI	CHIEF ACCOUNTS OFFICER
151	Hyderabad	BIOLOGICAL E.LIMITED	18/183,AZAMEBAD,500020	AV.MOHAN	ASST.GENERAL MANAGER-HR
152	Hyderabad	2004 CHARITA IMPRESSIONS	1-9-1126/B, AZAMEBAD,500020	P.SUBBAIAH	PARNER
153	Hyderabad	PBEL PROPERTY DEVELOPMENT (INDIA) PVT.LTD	PLOT NO 69, KAVERI HILLS	P.V.RAMANA	HEAD CSR
154	Hyderabad	SADANAND ENGINEERING WORKS	19/1,INDUSTRIAL AREA, AZAMEBAD,500020	S.VIDHYANAND	MANEGING PARTNER
155	Hyderabad	THE SIASAT DAILY	J.N.ROAD, ABIDS	MD.AMER ALIKHAN	NEWS EDITOR
156	Hyderabad	BIO TECH AGRI SCIENCE	B-16,MOULALI, INDUSTRIAL AREA, IDA	A.V.S SWAMY	MANAGING PARTNER
157	Hyderabad	VISIONTEC MANUFACTURING SOLUTIONS	36,TIE,BALANAGAR	D.PAVAN KUMAR	MANAGING PARTNER
158	Hyderabad	BHARATH INDUSTRIAL CORPORATION	UNIT NO.11 TIE,BALANAGAR	AJAY KUMAR AGARWAL	PROPRIATOR
159	Hyderabad	BHARATHI CNC TECHNOLOGIES	PLOT NO 35,IDA,BALANAGAR	P.SRICHAND	MANAGING PARTNER
160	Kadapa	BHARATHI CEMENT CORPORATION PVT. LTD.	NALLINGAYAPALLI, KAMALAPURAM, KADAPA-516289	P.SUDHAKAR	ASSOCIATE G.M. HR & ADMIN
161	Kadapa	DALMIA CEMENT (BHARAT) LTD.	CHINNAKOMERLA (VI), MYLAVARAM	A.V.KIRAN KUMAR	EXECUTIVE-HR

Sl. No.	DISTRICT	Name Of The Establishment	Address	Name Of The Respondent	Designation Of The Respondent
			(MDL), JAMMALAMADUGU TQ. PIN-516433		
162	Kadapa	M/S SREEVARI ENTERPRISES	P.NO.1168, IDA, NEAR RTC WORK SHOP, KADAPA-516002 PH.NO.09030990633	SREEKANTH	PROPRIETER
163	Kadapa	THE INDIA CEMENTS LIMITED	N.S.NAGAR, CHILAMAKUR, YERRAGUNTLA MANDAL, KADAPA DISTRICT (A.P)	B.RAGHURAMI REDDY	VICE PRESIDENT HR
164	Kadapa	RAYALASEEMA SPINNERS PVT. LTD.	E 7 TO 3 10, INDUSTRIAL ESTATES, KADAPA	L.RAMACHENNA REDDY	MANAGER
165	Kadapa	SAI LAKSHMI VENKATESWARA SOLVENT EXTRACTIONS	S.NO.32/2, GOTUR VILLAGE, VALLUR MANDAL, KADAPA DT.	D.SANKARAIAH	MANAGING PARTNER
166	Kadapa	M/S VISIST FOODS	S.NO. 39/1,2,3 VALLUR MANDAL, GOTUR, KADAPA	T.AMARNATH	PARTNER
167	Kadapa	SAMYU GLASS PVT. LTD.	F.NO.11, APIIC, INDUSTRY DEVELOPMENT PARK, PULIVENDULA, THADIPATRI ROAD	B.SRRENIVASULU	DEPUTY MANAGER PERSONAL DEPARTMENT
168	Kadapa	SHRI GOVINDARAJA TEXTILE (P) LTD.	PULIVENDULA TO TADIPATRI (ROAD), PULIVENDULA 516390, KADAPA	MUTTU KRISHNA R.	H.R.D
169	Kadapa	NSL TEXTILES LTD	PULIVENDULA-TADIPATRI ROAD, APIIC,	P.SHEKAR	PERSONAL MANAGER

Sl. No.	DISTRICT	Name Of The Establishment	Address	Name Of The Respondent	Designation Of The Respondent
			PULIVNEDULA		
170	Kadapa	SAJJALA WOVEN SACKS PRIVATE LTD	KADAPA TO VEMPALLI ROAD, VEMPALLI	R.PRASAD DASARA	PERSONAL OFFICER
171	Kadapa	PULIVENDULA POLYMARS (KORAMANDAL)	KADAPA-PULIVENDULA ROAD, OPP. SAIBABA TEMPLE, PULIVENDULA	P.SATYANARAYANA	ASSISTANCE GENERAL MANAGER
172	KADAPA	CUDDAPAH SPINNING MILLS LTD.	KSRM ENG. COLLEGE, C.K.DINNE MANDAL, KADAPA DT.-516003	MANNETI LINGA REDDY	MANAGER
173	KADAPA	GREENKO ENERGIES Pvt. Ltd.	KOKKIRAYAPALLI ROAD, CHENNURU, KADAPA	J.HANUMANTHA RAO	GENERAL MANAGER
174	KADAPA	M/S ZUARI CEMENT LIMITED	KRISHNA NAGAR, YERRAGUNTLA	M.S.GIRI	MANAGER P & A
175	KARIMNAGAR	NIZAM DECCAN SUGAR LTD	MUTHAMPET, MALLAPUR (M) LTD	C H JAYARAMDAS	GENERAL MANAGER
176	KARIMNAGAR	SURABHI SPINNING PVT LTD	SUGLAMPALLY, SULTANABAD, KARIMNAGAR	A.T.RAMA RAO	GENERAL MANAGER
177	KARIMNAGAR	HARITHA BIO PRODUCTS INDIA PVT	PARALAPALLY, THIMMAPUR	THIRUPATHI REDDY	H.R
178	KARIMNAGAR	SHALIVAHANA (MSW) GREEN ENERGY LTD	SY NO. REBBEKDEVPALLY, SULTHANABAD	A.SHYAM SUNDAR	PLANT MANAGER
179	KARIMNAGAR	SANSURAPATHI POWER & INDUSTRIAL	CHINTHKUNTA VILLAGE, KARIMNAGAR	M.ESWARAIAH	LAND MANAGER
180	KARIMNAGAR	CREMLINE DAIRY PRODUCT PVT. LTD	KOTHAPALLY ROAD, JAMMIKUNTA, KARIMNAGAR		PRESIDENT
181	KARIMNAGAR	VENKATESWARA AGRO SEEDS PVT.	NUSTLAPUR, THIMMAPUR, KARIMNAGAR	VENKATESARA RAO	MANAGER

Sl. No.	DISTRICT	Name Of The Establishment	Address	Name Of The Respondent	Designation Of The Respondent
		LTD			
182	KARIMNAGAR	MULKANOOR MAHILA DAIRY PVT. LTD	MULKANOOR, KARIMNAGAR	SAMMIREDDY	GENERAL MANAGER
183	KARIMNAGAR	BHADRAKALI GINNING PVT.LTD	GELLALAGADDA, HUSNABAD, KARIMNAGAR	MALLA REDDY	GENERAL MANAGER
184	KARIMNAGAR	SARITHA OIL INDUSTRIES PVT LTD	VIL&MNDL JAMMIKUNTA KARIMNAGAR	SURENDER REDDY	MANAGER
185	KARIMNAGAR	SAKSHI UNIT	(VIL&MNDL) THIMMAPUR. (DIST) KARIMNAGR	SRINIVAS	MANAGER
186	KARIMNAGAR	NTPC LTD	PO,JYOTHINAGAR,DI,KARIMNAGAR- 505215	NANDAKISHORE	AST,MANAGER
187	KARIMNAGAR	KESHORAM CEMENTS PVT LTD	BHASANTH NAGAR GODAVARIKHANI	SUBRAMANYAM	AST,MANAGER
188	KARIMNAGAR	VENKATESHWARA GRANITES PVT LTD	VIL&MNDL. THIMMAPUR. (DIST) KARIMNAGAR	HARIKISHAN RAO	MANAGER
189	KARIMNAGAR	ANDHRAJYOTHI UNIT PVT LTD	MANAKONDUR. KARIMNAGAR	K.V.N REDDY	MANAGER
190	KARIMNAGAR	LAXMI GANAPATHI METAL WORKS PVT LTD.	(V)CHANGERLA ,(M)MANAKONDUR, (D)KARIMNAGAR	D.JOY SINGH	MANAGER
191	KARIMNAGAR	SNEHA FARM PVT LTD	(V)CHANGERLA ,(M)MANAKONDUR, (D)KARIMNAGAR	BHASKAR REDDY	MANAGER
192	KARIMNAGAR	GAYATHRI SUGAR INDUSTRIES LTD	MANAKONDUR, KARIMNAGAR	SATYANARAYANA	GENERAL MANAGER
193	KARIMNAGAR	KANAKA DURGAR GINNING PVT LTD	PANDILLA , HUSNABAD, KARIMNAGAR	RAJESHWAR RAO	GENERAL MANAGER
194	KARIMNAGAR	ARUNODAYA INDUSTRIES	ALUGUNOOR, KARIMNAGAR	RAJAMOULI	DIRECTOR
195	KARIMNA	BHAGAVATHI	JAMMIKUNTA	PRAVEEN KUMAR	MANAGER

Sl. No.	DISTRICT	Name Of The Establishment	Address	Name Of The Respondent	Designation Of The Respondent
	GAR	COOTON INDUSTRIES PVT LTD	KARIMNAGAR		
196	KARIMNAGAR	CHALMADA FEEDS PVT LTD	GANDHI ROAD,KARIMNAGAR	VIDYASAGAR RAO	GENERAL MANAGER
197	KARIMNAGAR	RAJARAJESHWARA SPINNING INDUSTRIES PVT ;LTD	(V)PEDDURE, (M) SIRICILLA,KARIMNAGAR	SANJEEV REDDY	GENERAL MANAGER
198	KARIMNAGAR	SRI KANAKADURGA OIL INDUSTRIES PVT LTD.	(V)SHUGLAMPALLY.(M)SULTHANABAD, (D)KNR	HAREESH GOUD	GENERAL MANAGER
199	KARIMNAGAR	GANESH GRANITES INDUSTRIES PVT LTD	JAGITYAL ROAD GANGATHARA	MADHAVA RAO	MANAGER
200	KHAMMAM	KAKATIYA CEMENT SUGAR&INDUSTRIES LIMITED	OERYVABCGAVUKKAGEM JAKKYRY	K.MURALIDHAR CHOWDARY	VICE PRESIDENT
201	KHAMMAM	RITHWIK POWER PROJECTS LTD	TEKULAPALLI, PENUBALLI, KHAMMAM-507209	K.SRINIVASA RAO	ASST.GENERAL MANAGER
202	Krishna	Life Line Formulations	44-1-18/1A Eluru Road , Gunadala , Vijayawada 53223	K.Dharma Tej	Partner
203	Krishna	Amodha Spintex	Jaggaig Pet	S.P Pulla Reddy	Branch Manager
204	Krishna	Mandava Cotton Mills	Telaprole , Gannawaram , Krishna Dist	Rama Mohan Rao	G.M
205	Krishna	Triveni Formulation	Surampalli	T.Vasuder Guptha	Genaral Manager
206	Krishna	Ramco Industries	Jaggaiah Peta, Krishna Dist	Chandra Shekar Rao	A.M (Time Office)
207	Krishna	NSL Textiles	Veeravalli, Bapulapadu	Prasad	HR Manager
208	Krishna	Swastik Industries	Autonagar , Vijayawada	Deepesh Mehtha	Manager
209	Krishna	Aarmex Farmulations	Surampally , Krishna Dist	K.V . Srinivas Rao	Propritor
210	Krishna	Kiran Enganeers	Auto Nagar	B.Chaitanya	Manager
211	Krishna	Liners India Ltd	Auto Nagar , Vijayawada	Murali Krishna	HR Manager

Sl. No.	DISTRICT	Name Of The Establishment	Address	Name Of The Respondent	Designation Of The Respondent
212	Krishna	Vijaya Spinning Mill	Ganguru	Srinivas	A.O
213	Krishna	Swastik Industries	Gunadala	D.Ramesh	Manager
214	Krishna	A.P Dairy Development Co-Op Federation Ltd	Kankipadu	V.Phanindra	B.I
215	Krishna	V.M Foods	Auto Nagar , Beside Swathi Press	Roop Kumar	Manager
216	Krishna	MOHAN SPINTEX	VATTIGUDIPADU , AGIRIPALLI, KRISHNA	NAGAMALLESWARA RAO	GENERAL MANAGER
217	Krishna	BETTER CASTINGS	AUTO NAGAR	SYED	HR MANAGER
218	Krishna	VEDA POLYMERS	OPP.HINDU PAPER , AUTO NAGAR , VIJAYAWADA	VENKATA NARAYANA	HR MANAGER
219	Krishna	ANIL POWER SYSTEMS	ENIKEPADU , VIJAYAWADA , KRISHNA DIST	KOTI REDDY	HR MANAGER
220	Krishna	ENERGY SYS. LEADER	NARASIMHARAOPLAMEM (V) VEERULAPADU (M), Krishna Dt.)	M.VINAY BHUSHAN	MANUGU HR & ADMIN
221	Krishna	INVENTA CHEMICALS	KEESAR (V), KANCHIKACHERLA, KRISHNA (DIST.)	Y.SEETARAMAYYA	DY.MANAGER
222	Krishna	SURYA ENGINEERS	NOT GIVEN	CHAITANYA	PRPO
223	Krishna	HARSHA LINERS PVT LTD	NOT GIVEN	A.RAMESH BABU	H.R MANAGER
224	Krishna	SRI VENKATESWARA ENGINEERING COMPANY	H.NO 27-6-177 , OPP GANDIKOTA , PRAKASAM ROAD GOVERNMENT	N.SUNIL	H.R MANAGER
225	Krishna	GURUCHARAN ENGINEERING COMPANY	H NO 1-4-283/3 , R.T BHAVANI PURAM , VIJAYAWADA	SRINIVAS RAO	MANAGER
226	Krishna	PRIYA FOODS (USHODAYA	PENAMALURU	LAKSHMAN SWAMY ATHKURI	HR MANAGER

Sl. No.	DISTRICT	Name Of The Establishment	Address	Name Of The Respondent	Designation Of The Respondent
		PVT LTD)			
227	Krishna	APAZ RADIATORS	APAZ PLAZA , AUTO NAGAR 100 FT ROAD	ABDHUL HAHED	MANAGER
228	Krishna	Life Line Formulations	44-1-18/1A Eluru Road , Gunadala , Vijayawada 53223	K.Dharma Tej	Partner
229	Krishna	Amodha Spintex	Jaggaig Pet	S.P Pulla Reddy	Branch Manager
230	Krishna	Mandava Cotton Mills	Telaprole , Gannawaram , Krishna Dist	Rama Mohan Rao	G.M
231	Krishna	Triveni Formulation	Surampalli	T.Vasuder Guptha	Genaral Manager
232	Krishna	Ramco Industries	Jaggaiah Peta, Krishna Dist	Chandra Shekar Rao	A.M (Time Office)
233	Krishna	NSL Textiles	Veeravalli, Bapulapadu	Prasad	HR Manager
234	Krishna	Swastik Industries	Autonagar , Vijayawada	Deepesh Mehtha	Manager
235	Krishna	Aarmex Farmulations	Surampally , Krishna Dist	K.V . Srinivas Rao	Propritor
236	Krishna	Kiran Enganeers	Auto Nagar	B.Chaitanya	Manager
237	Krishna	Liners India Ltd	Auto Nagar , Vijayawada	Murali Krishna	HR Manager
238	Krishna	Vijaya Spinning Mill	Ganguru	Srinivas	A.O
239	Krishna	Swastik Industries	Gunadala	D.Ramesh	Manager
240	Krishna	A.P Dairy Development Co-Op Federation Ltd	Kankipadu	V.Phanindra	B.I
241	Krishna	V.M Foods	Auto Nagar , Beside Swathi Press	Roop Kumar	Manager
242	Krishna	MOHAN SPINTEX	VATTIGUDIPADU , AGIRIPALLI, KRISHNA	NAGAMALLESWARA RAO	GENERAL MANAGER
243	Krishna	BETTER CASTINGS	AUTO NAGAR	SYED	HR MANAGER
244	Krishna	VEDA POLYMERS	OPP.HINDU PAPER , AUTO NAGAR , VIJAYAWADA	VENKATA NARAYANA	HR MANAGER
245	Krishna	ANIL POWER SYSTEMS	ENIKEPADU , VIJAYAWADA ,	KOTI REDDY	HR MANAGER

Sl. No.	DISTRICT	Name Of The Establishment	Address	Name Of The Respondent	Designation Of The Respondent
			KRISHNA DIST		
246	Krishna	ENERGY SYS. LEADER	NARASIMHARA OPLAMEM (V) VEERULAPADU (M), Krishna Dt.)	M.VINAY BHUSHAN	MANUGU HR & ADMIN
247	Krishna	INVENTA CHEMICALS	KEESAR (V), KANCHIKACHE RLA, KRISHNA (DIST.)	Y.SEETARAMAYYA	DY.MANAGER
248	Krishna	SURYA ENGINEERS	NOT GIVEN	CHAITANYA	PRPO
249	Krishna	HARSHA LINERS PVT LTD	NOT GIVEN	A.RAMESH BABU	H.R MANAGER
250	Krishna	SRI VENKATESWA RA ENGINEERING COMPANY	H.NO 27-6-177 , OPP GANDIKOTA , PRAKASAM ROAD GOVERNMENT	N.SUNIL	H.R MANAGER
251	Krishna	GURUCHARAN ENGINEERING COMPANY	H NO 1-4-283/3 , R.T BHAVANI PURAM , VIJAYAWADA	SRINIVAS RAO	MANAGER
252	Krishna	PRIYA FOODS (USHODAYA PVT LTD)	PENAMALURU	LAKSHMAN SWAMY ATHKURI	HR MANAGER
253	Krishna	APAZ RADIATORS	APAZ PLAZA , AUTO NAGAR 100 FT ROAD	ABDHUL HAHED	MANAGER
254	KURNOO L	SREE RAYALSEEMA GREEN ENERGY LTD	ASWATHAPUR AM, LAKSHMIPURA M B.O. A/W, ULINDAKONDA S.O. KURNOOL, PH.NO.08518-236551	L.R.M.NAIDU	HRD
255	KURNOO L	BHARAT PETROLEUM CORPORATION LTD.	KURNOOL LPG TERRITORY & PLANT, NH-7, 217/6 K.M.STONE, P.B.NO. 10, B.CAMP POST, KURNOOL-518 002 (A.P.)	CHARAN KUMAR KANE	ASST. MANAGER (ADMIN & ASST.)

Sl. No.	DISTRICT	Name Of The Establishment	Address	Name Of The Respondent	Designation Of The Respondent
256	KURNOOL	B.VEERABHADRA GOWD INDUSTRIES	COTTON GINNING&PRESSING, 17/104, MARKET YARD ROAD, ADONI-518301, KUNROOL DIST. (A.P)	G.PRABHAKAR	ACCOUNTANT
257	KURNOOL	K.BASANNA GINNING FACTORY	17-104 9A, AG M.C.ROAD, ADONI-5118301 PH. 252814, 250759	P.PULIKONDAIAH	ACCOUNTANT
258	KURNOOL	S.P.Y.AGRO INDUSTRIES LTD.	NEW INDUSTRIAL ESTATE, UDUMALPURAM, NANDYAL, KURNOOL-518502	P.PREMANATHA RAO	GENERAL MANAGER
259	KURNOOL	SRI SUBRAHMANYESWARA POLYMERS	KOILKUNTLA, KUNRNOOL	G.SRINIVASULU	HR (INCHARGE)
260	KURNOOL	BHAAGYALAKSHMI VEGETABLE PRODUCTS LTD	17/4,BASAPURAM ROAD, ADONI	T.H.BALARAM	DIRECTOR
261	KURNOOL	SREE RAYALASEEMA ALKALIES AND ALLIED CHEMICALS LTD	40-304, 2FLOOR, K.J. COMPLEX, BHAGYA NAGAR, KURNOOL	G.PRAHLADA SETTY	DY GENERAL MANAGER - HR
262	KURNOOL	KMC CONSTRUCTIONS LTD	P-4, NH 18	P.KRISHNA REDDY	HR MANAGER
263	KURNOOL	A.SESHAIAH INDUSTRIES GRANITE CUTTING AND POLISHING INDUSTRIES	KURNOOL ROA, BETAMCHERLA	N.RAMACHANDRAIAH	HR MANAGER
264	KURNOOL	CANARA OVERSEAS LTD	SY NO. 143 A, LAKSHMIPURAM ROAD ASWATHAPUR	P.MAHESH BABU	MIS ADMINSTRATIVE

Sl. No.	DISTRICT	Name Of The Establishment	Address	Name Of The Respondent	Designation Of The Respondent
			AM (V) KALLUT(M)		
265	KURNOOL	SREE BALAJI TMT ROD MILLS PVT,LIMITED.	NO.193A,ASWATHAPURAM VILLAGE ,LAXMIPURAM ROAD,KALLUR MANDAL.	RMAKRISHNA	GENERAL MANAGER
266	KURNOOL	SUCHAND POWERCEN (P)LTD	UDUMALAPURAM(V) (P.O) NK ROAD ,NANDYAL	D.SRINIVAS RAO	
267	KURNOOL	SREE PAVAN AGRO TECH	17/40-41,MADHAVARAM ROAD ADONI,518301.		PARTNER
268	KURNOOL	PANYAM CEMENTS AND MINERAL INDUSTRIES LTD.	CEMETNAGAR-518206,BUGGANIPALLY RS.	G.S SAINATH	GENERAL MANAGER
269	KURNOOL	SAI RAYALASEEMA PAPER MILLS	GONDIPARLA,KURNOOL	TD.VENKATASUBBIAH	MANAGER
270	KURNOOL	SRI BASAVESHWARA GINNING AND PRESSING FOCTORY	AGRL MARKET COMMMITEE ROAD ADONI	DEISETTY BHADRA MUTHU	M.D
271	KURNOOL	I.K OILS	16/65,BASAPURAM ROAD ADONI 518301.KURNOOL	K.G PRASAD	MANAGER
272	KURNOOL	VK EXTRACTIONS	17/136-9 ALUR ROAD,ADON-518301(AP)TINO 28550199317	VIITTA SATHISH KUMAR	PARTNER
273	KURNOOL	SREE RAYALASEEMA SUGAR &ENERGY(P) LTD	AYYUR METTA,PONNAPURAM NANDYAL-518502	SATYANARAYANA	SENIOR EMPLOY
274	KURNOOL	ADANI WILMAR LIMITED	TUNGABADRA, MANTRALAYAM, KURNOOL, A.P	K.RAMA KRISHNA	FACTORY MANAGER

Sl. No.	DISTRICT	Name Of The Establishment	Address	Name Of The Respondent	Designation Of The Respondent
275	KURNOOL	PAVANI MINERAL INDUSTRY	BANAGANAPALLI, KURNOOL	B.RAMI REDDY	HR
276	KURNOOL	ADHONI COTTON INDUSTRY	ADONI, KURNOOL DT.	RAGHAVENDRA SWAMY	HR
277	KURNOOL	LAKSHMI GRANITES PRIVATE LTD	BETHAMCHERLA, KURNOOL DT.	K.SANKAR REDDY	HR
278	KURNOOL	PANYAM CEMENTS AND MINERAL INDUSTRIES LTD., (PLANT 2)	CEMETNAGAR-518206,BUGGANIPALLY RS.	G.S.SAINATH	GENERAL MANAGER
279	MAHABUBNAGAR	NATCO	MEKAGUDA, KOTHUR	PRASAD RAO	MANAGER
280	MAHABUBNAGAR	VISHNU GRANITE PVT.LTD	KOTHUR, SADNAGAR	GOURISHANKAR.T	MANAGER
281	MAHABUBNAGAR	OM SHIVA SHAKTHI IRON INDUSTRIES P.LTD	MOGILIGIDDA	JITHENDER	MANAGER(HR)
282	MAHABUBNAGAR	SURYA LAXMI COTTON MILLS P.LTD	AMANGAL, MBNR	VENKATAIAH, NARAYANA	MANAGER
283	MAHABUBNAGAR	GTN TEXTILES LTD	GOLLAPALLY, BALANAGAR	SATYANARAYANA	COMMERCIAL MANAGER
284	MAHABUBNAGAR	STEM CORE ALLOYS AND ISPAT LTD	SADNAGAR	SAKETH SHARMA	MANAGER
285	MAHABUBNAGAR	VINAYAKA STEEL LTD	KOTHUR	SRINIVASULU	MANAGER
286	MAHABUBNAGAR	SALGATHI INDUSTRIAL LTD	RAJAPUR, JADCHERLA	B.NAGA RAMESH	MANAGER
287	MAHABUBNAGAR	HBL POWER SYSTEMS LTD	KOTHUR	NAGESHWAR RAO	COMMERCIAL MANAGER
288	MAHABUBNAGAR	DILEEP RE-ROLING PVT.LTD	GANDEED, BALANAGAR	SHEKAR AGARWAL	M.D
289	MAHABUBNAGAR	VINS BIO-PRODUCTS LTD	THIMMAPUR, KOTHUR	AJITH NAYAR	DIRECTOR
290	MAHABUBNAGAR	VIBHA AGRO TECH LTD	ADDAKAL	RAMANA REDDY	MANAGER
291	MAHABUBNAGAR	ANAND METALICS &	SADNAGAR	NAGARAJU, VIJAYAKUMAR	MANAGER, AO

Sl. No.	DISTRICT	Name Of The Establishment	Address	Name Of The Respondent	Designation Of The Respondent
		POWER P.LTD			
292	MAHABU BNAGAR	SALGATHI INDUSTRIAL LTD	JEDCHERLA, GOLLAPALLY	NAGARAMESH	MANAGER, AO
293	MAHABU BNAGAR	RAJVIR INDUSTRIES P.LTD	PILLALAMARRI ROAD	VENKATESHWARLU	MANAGER
294	MAHABU BNAGAR	REACTIVE METAL OF INDIA P.LTD	APPAIPALLY BALANAGAR	ARAVIND KEDIA	MANAGER
295	MAHABU BNAGAR	SURYALATHA APINNING MILLS LTD	KALWAKUNTLA	NAGESHWAR RAO	MANAGER
296	MAHABU BNAGAR	HBL POWER SYSTEMS LTD	BOOTHPUR	NAGESHWAR RAO	COMMERCIAL MANAGER
297	MAHABU BNAGAR	DIVYA SHAKTHI PAPER MILLS P.LTD	KONDURG,SAD NAGAR	GURUVA AGRWAL	DIRECTOR
298	MAHABU BNAGAR	HARSHAVARD AN P.LTD	KOTHUR, THEEGAPUR	PRABHULINGAM	MANAGER
299	MAHABU BNAGAR	DEVASHREE ISPAT P.LTD	ALLIKATLA, SADNAGAR	ASHOK GUPTH	MANAGER
300	MAHABU BNAGAR	SUBHAN PRODUCT P.LTD	ELIKATTA,SAD NAGAR	NIMMICHAN	MANAGER
301	MAHABU BNAGAR	RADICO	THIMMAPUR, KOTHUR	PAVAN	MANAGER
302	MAHABU BNAGAR	BINJUSARIA SPONGE & POWER LTD	FAROOQ NAGAR, SADNAGAR	THIRUPATHI REDDY	MANAGER
303	MAHABU BNAGAR	SUNDER ISPAT LTD	IPPALAPALLI, KESHAMPET	RASOOL	MANAGER
304	Medak	Parle Agro Pvt.Ltd.	Plot No.58-63, Phase III, Industrial Park, Pashamylaram,Isnapur,Medak-502307.	V.Srikanth	Sr.Executive HR
305	Medak	Krishna Industrial Corporation Ltd.	Phase III Plot No. 172,Survey No. 174 & 186, APIICJP, Pashamylaram, Patancheru-502307	M.Bala Kishore	Unit Incharge
306	Medak	M/S	Phase III IDA	B.G.Rathi	Plant Incharge

Sl. No.	DISTRICT	Name Of The Establishment	Address	Name Of The Respondent	Designation Of The Respondent
		V.S.Costings Pvt.Ltd.	Pashamylaram		
307	Medak	Coral Petroproducts	Plot 18,19 Phase I. I.D, Pashamylaram Medak	P.Vittal	Marketing Executive
308	Medak	Swathi Industries	Unit-II,Plot No.37/2.Phase I, I.D.A.,Pashamylaram,Medak		Propriter
309	Medak	Ushavital Care Pvt.Ltd.	Plot No. 190 Pashamylaram Industrial	P.Appa Rao	G.M.
310	Medak	Delvear Mining Machinery Pvt.Ltd.	Plot No.260 3rd Phase Pashamylaram	Anand Vishal	Senior Manager,Finance & Accounts
311	Medak	S.V.Equipments Pvt.Ltd.	Plot No.214,IDA,Phase-III, Pashamylaram	K.Mahesh Reddy	Admin (Executive)
312	Medak	Piyanshu Chemicals P.Ltd	PLOT NO 200,201, PHASE, IDA,PASHAGAYLAVAM	MR.PADAM BHAGATH	FACTORY MANAGER
313	Medak	GVR INDUSTRIES P.LTD	PLOT NO.236/A&B,IDA,PASHA MYLARAM	GANGARAO GADDE	MANAGING DIRECTOR
314	Medak	JEEVAN POLYMERS P.LTD UNIT III	PLOT NO 274,PHASE-III,PASHAMPALEM	M.SHREE RAM MURTHY	
315	Medak	SHIVA GANGA POLYMEN P.LTD	PLOT NO 166,177 IDA PASHYAMPALEM	GOPAL KRISHNA	SUPERWISER
316	Medak	OC TANT INDUSTRIES P.LTD	PLOT NO 65 &66 MAILARAM	G.MOHANTY	MANAGER
317	Medak	HEMA CORK INDUSTRIES P.LTD	EPIP PASHAMLYARAM,74/A	MR.A.NAGESHWAR RAO	INCHARGE
318	Medak	THULLURI EXPORTS P.LTD	PLOT NO.69-72, EPIP,PASHAMLYARAM	T.V.B.CHARY,K.GOUTHAM	INCHARGE
319	Nellore	Green Tech	Menakuru, Nellore District	G.Venkatachalam	SUPERVISOR

Sl. No.	DISTRICT	Name Of The Establishment	Address	Name Of The Respondent	Designation Of The Respondent
320	Nellore	CIFAL HERBAL PRODUCT PVT. Ltd.	GOGINENIPURAM, GUDURU	S.VENKATA NARASING	SUPERVISOR
321	Nellore	LOYAL TEXTILE	MENAKURU	NAGARAJU	SUPERVISOR
322	Nellore	SRQ STEEL LTD.	CHILLAKURU BYPASS ROAD, GUDUR	MUNNAJI	SUPERVISOR
323	Nellore	NATIONAL PLASTIC	MENAKURU, NAIDUPETA ROAD	PALAMANI. RAMAIAH	SUPERVISOR
324	Nellore	BLUE STEEL	NELLORE, VENKATACHALAM	SURESH KUMAR REDDY	SALES SECTION
325	Nellore	STANDERD POWER LIMITED	MINIBYPASS ROAD , NELLORE	HEMANTH REDDY	M.D
326	Nellore	COASTAL ANDHRA POWER LTD	MUTHUKUR , NELLORE	RAJENDHRA KUMAR	WORKER
327	Nellore	POWER TECH	MAMBATTU , TADA , NELLORE	SANJIVULU	SR.OPERATOR
328	Nellore	CHENNAI STEELS AND TRADERS	HARE KRISHNA NAGAR	CHANNAI MURGAN	MANAGER
329	Nellore	KOVUR COOPERCHVE SUGAR LTD	NELLORE	P.MOHAN REDDY	OFFICE MANAGEMENT
330	Nellore	KREBS BIOCHEMICALS	ALURU ROAD , NELLORE	G.V VENKAT RAO	PARSANOL OFFICER
331	Nellore	BODLA DIARY LTD	NELLORE	K.V KRISHNA	FINANCE OFFICE (HR DEPARTMENT)
332	Nellore	MEENAKSHI ENARGY PVT LTD	MINIBYPASS . MUTHUKUR ROAD , NELLORE	SRIKANTH	SUPERVISOR
333	Nellore	A PACHE FOOT WARE INDIA PVT LTD	MAMBATTU (VILL) , TADA (MANDAL) , NELLORE	S.PRASAD	SR.OPERATOR
334	Nellore	TIRUMALA MILK DIARY PVT LTD	BUDANAM	S.V NARSAIAH	SUPERVISOR
335	Nellore	SRI GAYATHRI SUGAR COMPANY LTD	SRINIVASAPURAM , NELLORE	BALAJI	WORKER

Sl. No.	DISTRICT	Name Of The Establishment	Address	Name Of The Respondent	Designation Of The Respondent
336	Nellore	BALAJI STEEL CORPORATION LTD	NELLORE , VENKATACHALAM	B.SURESH KUMAR REDDY	SALES SECTION
337	Nellore	SREE ANJANEYAAQUA FEEDS	VENKATARAMAPURAM , NELLORE	PANDIAN	AREA MANAGER
338	Nellore	DOCTOR WIRTH PHARMA	POTHIREDDY PALEM , NELLORE	S.SIVAKUMAR	SALES EXECUTOR
339	Nellore	R.K WATER PLANT	BREN DEVI , MAIN ROAD , MUTHUKUR , NELLORE	A.V.S REDDY	M.D
340	Nellore	NISSEN	NELLORE , (VENKATACHALAM)	SECURITY	B.RAMA RAO
341	Nellore	FOOD CORPORATION OF INDIA	VENKATACHALAM , NELLORE	A.SRINIVASULU	RESIDENT
342	Nellore	HELL-MARK COMPANY CHEMICALS	KOTTURU , AMBEPURAM, MAIN ROAD , NELLORE	D.DANAM	SUPERVISOR
343	Nellore	SARAYU HERO	MINIBYPASS , RAMURI NAGAR , NELLORE	P.SUNEEL KUMAR	TECHNICIAN
344	Nellore	JAGETI PUBLICATIONS LIMITED	RAMU PARTI PADU CROSS ROAD , NELLORE	A.RAJU	TRAIN I CHARGE
345	Nellore	CIFAL HERBAL PRODUCT PVT. Ltd.	GOGINENIPURAM, GUDURU	S.VENKATA NARASING	SUPERVISOR
346	Nellore	LOYAL TEXTILE	MENAKURU	NAGARAJU	SUPERVISOR
347	Nellore	SRQ STEEL LTD.	CHILLAKURU BYPASS ROAD, GUDUR	MUNNAJI	SUPERVISOR
348	Nellore	NATIONAL PLASTIC	MENAKURU, NAIDUPETA ROAD	PALAMANI. RAMAIAH	SUPERVISOR
349	Nellore	BLUE STEEL	NELLORE, VENKATACHALAM	SURESH KUMAR REDDY	SALES SECTION
350	Nellore	STANDERD POWER LIMITED	MINIBYPASS ROAD , NELLORE	HEMANTH REDDY	M.D
351	Nellore	COASTAL	MUTHUKUR ,	RAJENDHRA KUMAR	WORKER

Sl. No.	DISTRICT	Name Of The Establishment	Address	Name Of The Respondent	Designation Of The Respondent
		ANDHRA POWER LTD	NELLORE		
352	Nellore	POWER TECH	MAMBATTU , TADA , NELLORE	SANJIVULU	SR.OPERATOR
353	Nellore	CHENNAI STEELS AND TRADERS	HARE KRISHNA NAGAR	CHANNAI MURGAN	MANAGER
354	Nellore	KOVUR COOPERCHVE SUGAR LTD	NELLORE	P.MOHAN REDDY	OFFICE MANAGEMENT
355	Nellore	KREBS BIOCHEMICALS	ALURU ROAD , NELLORE	G.V VENKAT RAO	PARSANOL OFFICER
356	Nellore	BODLA DIARY LTD	NELLORE	K.V KRISHNA	FINANCE OFFICE (HR DEPARTMENT)
357	Nellore	MEENAKSHI ENARGY PVT LTD	MINIBYPASS . MUTHUKUR ROAD , NELLORE	SRIKANTH	SUPERVISOR
358	Nellore	A PACHE FOOT WARE INDIA PVT LTD	MAMBATTU (VILL) , TADA (MANDAL) , NELLORE	S.PRASAD	SR.OPERATOR
359	Nellore	TIRUMALA MILK DIARY PVT LTD	BUDANAM	S.V NARSAIAH	SUPERVISOR
360	Nellore	SRI GAYATHRI SUGAR COMPANY LTD	SRINIVASAPUR AM , NELLORE	BALAJI	WORKER
361	Nellore	BALAJI STEEL CORPORATION LTD	NELLORE , VENKATACHAL AM	B.SURESH KUMAR REDDY	SALES SECTION
362	Nellore	SREE ANJANEYAAQU A FEEDS	VENKATARAMA PURAM , NELLORE	PANDIAN	AREA MANAGER
363	Nellore	DOCTOR WIRTH PHARMA	POTHIREDDY PALEM , NELLORE	S.SIVAKUMAR	SALES EXECUTOR
364	Nellore	R.K WATER PLANT	BREN DEVI , MAIN ROAD , MUTHUKUR , NELLORE	A.V.S REDDY	M.D
365	Nellore	NISSEN	NELLORE , (VENKATACHA LAM)	SECURITY	B.RAMA RAO
366	Nellore	FOOD CORPORATION	VENKATACHAL AM , NELLORE	A.SRINIVASULU	RESIDENT

Sl. No.	DISTRICT	Name Of The Establishment	Address	Name Of The Respondent	Designation Of The Respondent
		OF INDIA			
367	Nellore	HELL-MARK COMPANY CHEMICALS	KOTTURU , AMBEPURAM, MAIN ROAD , NELLORE	D.DANAM	SUPERVISOR
368	Nellore	SARAYU HERO	MINIBYPASS , RAMURI NAGAR , NELLORE	P.SUNEEL KUMAR	TECHNICIAN
369	Nellore	JAGETI PUBLICATIONS LIMITED	RAMU PARTI PADU CROSS ROAD , NELLORE	A.RAJU	TRAIN I CHARGE
370	NIZAMABAD	NSL RENEWABLE POWER PVT. LTD	RENGAL	9989463618	PRO
371	NIZAMABAD	SUKHJIT STARCH MILLS	MUBARAKNAGAR	RAJEEV DUA	VICE PRESIDENT
372	PRAKASAM	APPLE GRANITES LTD	RL PURAM , CHEMAKURTHY	K.CHANDRA MOULI , SK KHADAR BASHA	MINES MANAGER , MECHANICAL ENGINEER
373	PRAKASAM	AMARAVATHI TEX TILES PVT LTD	MARTUR , (V & M) , PRAKASAM	G.KOTESWARA RAO	A.L.W.O
374	PRAKASAM	SAIGLOBAL YARN TEX INDIA PVT LTD	NHS VELLAMPALLI VILLAGE , MADDIPADU MANDAL , PRAKASAM DIST	N.SRINIVASA RAO	ACCOUNTS OFFICE
375	PRAKASAM	PRAKASAM DISTRICT MILK PRODUCERS MUTUALLY AIDED CO OP UNION LTD		MANAGING DIRECTOR	MANAGING DIRECTOR
376	PRAKASAM	RASUNGRANITE MINE OF M/S RASUM EXPORT PVT LTD	R . 4 PURAM , CHIMAKURTHY PRAKASAM DIST	SATYANARAYANA	SATYANARANA DIRECTOR
377	PRAKASAM	CLARION POWER CORPORATION LTD	NH.5, OPP 33 KV SUB STATION , TANGUTURU	B.BRAHMANANDA REDDY	DY.MANAGER

Sl. No.	DISTRICT	Name Of The Establishment	Address	Name Of The Respondent	Designation Of The Respondent
			(V&M) , PRAKASAM DIST		
378	PRAKASAM	RAMADATHA READYMADE GARMENTS	GANDHI NAGAR, NEAR RAMALAYAM, CHIRALA, PRAKASAM DT.	SUBBA RAO	MANAGER
379	PRAKASAM	MADHU CLOTH DYING IND.	AYODHYA NAGAR, JANDRAPET, CHIRALA	G.MADHU SUDHANA RAO	MANAGER
380	PRAKASAM	M/S SVKSS PROCESSING UNIT	PLOT NO.188, GUNDLAPALLI, PRAKASAM DT.	M.BALA KRISHNA MURTHY	PROPRIETOR
381	PRAKASAM	VYSHNAVI CREATIONS TEXTILE IND.	KOTHAPALEM, GANDHINAGAR PALLE	B.V.SAI KUMAR	MANAGER
382	RANGAR EDDY	M/S. TECHTRAN POLYENSES LTD	PLOT NO S-7,BALANAGAR	B.JAYA BHARATH REDDY	SR.EXECUTIVE-HR
383	RANGAR EDDY	ANNAPURNA EARCANEL LTD	42.ID.A BALANAGAR	D.SRINIVASA RAO	MANAGER HR& IR
384	RANGAR EDDY	ASSURED TECHNOLOGY AND DEVELOPMENT P.LTD	C-61,BALANAGAR	KONDAN KUNNAL	MANAGING DIRECTOR
385	RANGAR EDDY	VIJAYA SAI MINING & DRILLING EQUIPMENTS	B-9/1,E.E.I.E,PHASE -2,BALANAGAR	R.SANDEEP	MD
386	RANGAR EDDY	VARSUN E-TECHNOLOGIES PVT.LTD	B-9,TIE,PHASE-2,BALANAGAR, 500037	POORNA CHANDRA RAO	DGM
387	RANGAR EDDY	HIMA ELECTRICAL INDUSTRIALS	16.TIE BALANAGAR	NARESH KUMAR YERVA	PROPRIETOR
388	RANGAR EDDY	BALAJI INDUSTRIAL & AGRICULTURAI CASTINGS	16,IDA,BALANAGAR	G.ANANTHA KRISHNA	OPERATION MANAGER
389	RANGAR EDDY	SAIVEN TOOL CRAFTS	UNIT NO 13 T.I.E.OPP MTAR.BALANAGAR	G.GOPI	ACCT OFFICER
390	RANGAR	UNIJIGBG	PLOT NO 26	P.V.RAMANA	DIRECTOR

Sl. No.	DISTRICT	Name Of The Establishment	Address	Name Of The Respondent	Designation Of The Respondent
	EDDY	TECHICS PVT.LTD	IDA BALANAGAR		
391	RANGAR EDDY	NEOTECH RUBBER PRODUCTS	SHED NO S16.PHASE-2, TIE,BALANAGAR	M.V.NAGARJUNA	ACCT JUNIOR
392	RANGAR EDDY	S & U MEK ENGINEERING PVT.LTD	TIE 27,BALANAGAR	SAI PRASAAD.R	COMERCIAL MANAGER
393	RANGAR EDDY	M/S.KGN DECCAN ENGG IND(P).LTD	PLOT NO.29&32,IDA,BALANAGAR	T.MANOJ KUMAR	COMERCIAL MANAGER
394	RANGAR EDDY	SNEHA TOOL& ENGINEERING WORKS	PLOT NO.16,IDA,BALANAGAR	Y.APPANNA	PROPRIETOR
395	RANGAR EDDY	MECFAB ENGINEERS	36 TIE BALANAGAR	RAJENDRA NATH	PROPRIETOR
396	RANGAR EDDY	INFLATABLE IDEAS	IDA, NACHARAM, NEAR KAKATIYA CRUSHER, RANGAREDDY	P.NAGA RAJU	M.D
397	RANGAR EDDY	SIPRA LABS LTD.	INDUSTRIAL ESTATE, BESIDE TOYATO SHOW ROOM, SANATHNAGAR	N.RAMA MOHANA RAO	HR MANAGER
398	RANGAR EDDY	N.S.ENGINEERING PVT. LTD	UNIT, B-28, BHEL, AUXILLARY INDUSTRIAL ESTATE, R.C.PURAM	B.S.REDDY	HR MANAGER
399	RANGAR EDDY	MEGHA ENGINEERING INDIA PVT. LTD	TECHNO CREATES INDUSTRIAL ESTATE, BALANAGAR, R.R.DT.	NANDU	HR MANAGER
400	RANGAR EDDY	SACHVENDER ELECTRICS INDIA PVT. LTD	PRAKRUTI NIVAS, NARSAPUR ROAD, R.R.DT	SURESH KUMAR	HR MANAGER
401	RANGAR EDDY	OBULAM ELECTRICALS	BALANGAR, NARASAPUR	GANGADHAR	MANAGER

Sl. No.	DISTRICT	Name Of The Establishment	Address	Name Of The Respondent	Designation Of The Respondent
		PVT. LTD	ROAD R.R.DT		
402	RANGAR EDDY	ANDHRA PRADESH FOODS PVT LTD.	IDA,NACHARAM, MALLAPUR, R.R.DT.	M.SADASHIVA REDDY	HR
403	RANGAR EDDY	DECENT POLYMERS PVT. LTD	PLOT NO.70, KATTEDAN, RANGAREDDY DT.	L.RAMACHANDRA	DIRECTOR
404	RANGAR EDDY	ARUNODAYA ENTERPRISES	43,IDA, JEEDIMETLA, QUTBULLAPUR, R.R.DT.	M.NARESH YADAV	DIRECTOR
405	RANGAR EDDY	P.P.PLASTIC GRANIVELS PVT. LTD.	175,177, DOOLAPALLY, QUTHBULLAPUR, RANGAREDDY	M.RAMACHADRA	HR MANAGER
406	RANGAR EDDY	S.M.POLY PRINTS PVT. LTD	NARSAPUR ROAD, BALANAGAR, RANGAREDDY	S.N.MURTHY	HR MANAGER
407	RANGAR EDDY	HERITAGE POLYMERS PVT. LTD	PLOT NO.28, ARUNA APTS. BHAGYANAGAR COLONY, KUKATPALLY, R.R.DT.	L.RAVINDER	HR MANAGER
408	RANGAR EDDY	RADIENT CABLES PVT. LTD	45, INDUSTRIAL AREA, SANATHNAGAR, HYD.	N.RAVINDER	HR MANAGER
409	RANGAR EDDY	AGARWAL PLASTICS PVT. LTD	95/A, I.E., KATTEDAN, R.R.DT.	M.SURESH KUMAR	M.D
410	WARANGAL	M/S.JYOTHI STONE CRUSHER	PEDDAPENDIAL,506151	A.ANILKUMAR	PROPRITER
411	West Godavari	SREE GODAVARI KRABT PAPERS LTD	RELANGI	SRI M . SATYANARAYANA	DIRECTOR
412	West Godavari	SUBHODAYA CHEMICALS LTD	GOURI PATNAM (VILL), DEVARAPALLI, W.G DIST	K.SRINIVASA RAO	DIRECTOR
413	West	A KULA	MANDAPALA	SRI RAJESH AKULA	CHIEF

Sl. No.	DISTRICT	Name Of The Establishment	Address	Name Of The Respondent	Designation Of The Respondent
	Godavari	BOARDS LTD	534216		EXECUTIVE
414	West Godavari	BALA BALAJI TEX TILES LTD	OLD TOWN , TANUKU	CH.V NARSHIMHA RAO	TECHNICAL MANAGER
415	West Godavari	THE ANDHRA SUGARS LIMITED	VENKATARAYA PURAM . TANUKU - 524215 , W.G DIST	SRI GUTTA BALAKRISHNA	GENERAL MANAGER - HR
416	West Godavari	DELTA PAPER MILL LTD	VENDRA, PALA KONDERU MANDAL.	SRI D.BANGAN RAJU	DY. MANAGER (PERDONNEL)
417	West Godavari	GODREJ AGROVET LIMITED	CH. POTHEPALLI VILLAGE DWARAKA TURUMALA MANDAL WEST GODAVARI DIST		
418	West Godavari	ANDHRA SUGARS PVT. LTD.	BHIMADOLE, WEST GODAVARI	VIJAYA KUMAR	HR MANAGER
419	West Godavari	M/S WAMBURU PVT. LTD	K.ILLADIPARRU , EARAGAVARAM MANDAL, W.G.DT.	SUBRAMANYAM	HR MANAGER
420	West Godavari	M/S SRIDIVYA SPINTEX PVT. LTD.	TADEPALLIGUDEM, WEST GODAVARI	VIJAYA KUMAR	HR MANAGER

List Interviews: District level officials/ ITI/ Colleges/ Labor Unions

Sl.No.	District	Name of the VTI	Type of VTI
1	Adilabad	SRI SAI ITC	PRIVATE
2	Adilabad	SHAKTI INDUSTRIAL TRAINING CENTRE	PRIVATE
3	Adilabad	GOVERNMENT ITI MANDAMARRI	GOVERNMENT
4	Adilabad	GOVERNMENT ITI (G), ADILABAD	GOVERNMENT

Sl.No.	District	Name of the VTI	Type of VTI
5	Adilabad	z	GOVERNMENT
6	Adilabad	RAJIV GANDHI MEMORIAL ITI	PRIVATE
7	Adilabad	GOVERNMENT I.T.I,UTNOOR	GOVERNMENT
8	Adilabad	LEWIES ITI	PRIVATE
9	Adilabad	GOVERNMENTI.T.I	GOVERNMENT
10	Adilabad	DIMPI ITI	PRIVATE
11	Anantapur	Sri Sairam I.T.I	Private
12	Anantapur	Government I.T.I., Hindupur	Government
13	Anantapur	Patti I.T.I	Private
14	Anantapur	S.V.I.T.I	Private
15	Anantapur	Sri Sai Venkateswara I.T.I, CK Palli	Private
16	Anantapur	Government I.T.I., Anantapur	Government
17	Anantapur	Government I.T.I. Girls, Anantapur	Government
18	Anantapur	Angelo I.T.I	Private
19	Anantapur	Sri Venkateswara ITI	Private
20	Anantapur	Mahalakshmi ITI	Private
21	CHITTOOR	SRI SAI RAM I.T.C PAKALA	PRIVATE
22	CHITTOOR	S.V.I.T.I	PRIVATE
23	CHITTOOR	O.V.R I.T.I	PRIVATE
24	CHITTOOR	GOVT ITI , CHITTOOR	GOVERNMENT
25	CHITTOOR	GOVT I.T.I., KARVETINAGARAM	GOVERNMENT
26	CHITTOOR	GOVT I.T.I., SANTHIPURAM	GOVERNMENT
27	CHITTOOR	SRINIVASA ITI	GOVERNMENT
28	CHITTOOR	GOVT ITI , PEIRU	GOVERNMENT
29	CHITTOOR	GOVT ITI , TIRUPATHI	GOVERNMENT
30	CHITTOOR	KANJI RAMACHANDRA REDDY ITI	GOVERNMENT

Sl.No.	District	Name of the VTI	Type of VTI
31	EAST GODAVARI	EllAM PVT. ITI	GOVERNMENT
32	EAST GODAVARI	SUMALATHA ITI PVT	GOVERNMENT
33	EAST GODAVARI	CHRISTIAN PVT. ITI	GOVERNMENT
34	EAST GODAVARI	Govt Rajamandry	GOVERNMENT
35	EAST GODAVARI	Lakshmi ITI	GOVERNMENT
36	EAST GODAVARI	Govt ITI Kakinada	GOVERNMENT
37	EAST GODAVARI	Vivekanandu (PVT) ITI Dhawaleshwaram	GOVERNMENT
38	EAST GODAVARI	S.V.P.R.M Pvt I.T.I	GOVERNMENT
39	EAST GODAVARI	SIDDARTHA PVT ITI	GOVERNMENT
40	EAST GODAVARI	ANDHRA KESARI PVT ITI	GOVERNMENT
41	GUNTUR	THRIPURAM PRT GOVERNMENT ITI GUDAVALLI	GOVERNMENT
42	GUNTUR	DLTC / ITI GUNTUR	GOVERNMENT
43	GUNTUR	ITI TENALI	GOVERNMENT
44	GUNTUR	GOVERNMENT ITI MACHERLA	GOVERNMENT
45	GUNTUR	GOVT ITI NIZAM PATNAM	GOVERNMENT
46	GUNTUR	SRI VENKATESWARA ITI PVT LTD	GOVERNMENT
47	GUNTUR	M.G.S I.T.I THAKKELLAPADU	GOVERNMENT
48	GUNTUR	SCHOLARS ITI JUNCTION	GOVERNMENT
49	GUNTUR	SHARADA ITC	GOVERNMENT

Sl.No.	District	Name of the VTI	Type of VTI
50	GUNTUR	SIDHARTHA INSTUTION OF INDUSTRIAL TRAINING CENTRE	GOVERNMENT
51	HYDERABAD	GovernmentITI Vijayanagar colony	Government
52	HYDERABAD	GovernmentITI Shanthnagar	Government
53	HYDERABAD	Anjuman Oomer ITC	Private
54	HYDERABAD	Sreeramachandra ITC	Private
55	HYDERABAD	Manorama ITC	Private
56	HYDERABAD	Millath ITC	Private
57	HYDERABAD	Sai Krupa ITI	Private
58	HYDERABAD	Government ITI	Government
59	HYDERABAD	Government ITI, Sanathnagar	Government
60	HYDERABAD	Government Industrial Training Institute	Government
61	Kadapa	DLTC / ITI	GOVERNMENT
62	Kadapa	GOVERNMENT ITI, CHAKRAYAPETA	GOVERNMENT
63	Kadapa	GOVERNMENT RESIDENTIAL ITI FOR GIRLS	GOVERNMENT
64	Kadapa	GOVERNMENT ITI (MINORTY)	GOVERNMENT
65	Kadapa	GOVT ITI VEMULA	GOVERNMENT
66	Kadapa	SRI VENKU REDDY ITC	PRIVATE
67	Kadapa	SKORE ITC, VEMPALLI	PRIVATE
68	Kadapa	SRI RAMA ITC	PRIVATE
69	Kadapa	AMEEN ITC	PRIVATE
70	Kadapa	DON BOSCO ITI	PRIVATE
71	Karimnagar	GOVERNMENT ITI RAMAGUNDAM	GOVERNMENT

Sl.No.	District	Name of the VTI	Type of VTI
72	Karimnagar	GOVERNMENT ITI Karimnagar	GOVERNMENT
73	Karimnagar	GOVERNMENT ITI, PEDDAPALLY	GOVERNMENT
74	Karimnagar	GOVERNMENT ITI, JAGTIAL	GOVERNMENT
75	Karimnagar	GOVERNMENT ITI, KOTARAM	GOVERNMENT
76	Karimnagar	SINDHURA ITI	PRIVATE
77	Karimnagar	MARCOS ITI	PRIVATE
78	Karimnagar	SRI RAMA ITI	PRIVATE
79	Karimnagar	LANT MEMORIAL INDUSTRIAL INSTITUTE	PRIVATE
80	Karimnagar	SIVA SAI ITI	PRIVATE
81	Khammam	SRI JVR ITI	PRIVATE
82	Khammam	KLR RURAL ITC	PRIVATE
83	Khammam	S.E.S.NAGENDRA ITC, MADHIRA	PRIVATE
84	Khammam	BHADRAGIRI ITI	PRIVATE
85	Khammam	VANI INDUSTRIAL TRAINING CENTER	PRIVATE
86	Khammam	REHANA MEMORIAL ITC	PRIVATE
87	Khammam	GOVERNMENT I.T.I.MANUGURU	GOVERNMENT
88	Khammam	GOVERNMENTRESIDENTIAL I.T.I,BHDRACHALAM	GOVERNMENT
89	Khammam	GOVERNMENTITI, KOTHAGUDEM	GOVERNMENT
90	Khammam	DR.AMBEDKAR ITI	PRIVATE
91	Krishna	SRI VENKATESWARA ITI	Government

Sl.No.	District	Name of the VTI	Type of VTI
92	Krishna	GOVT INDUSTRIAL TRAINING INSTUTTE , VIJAYAWADA	Government
93	Krishna	JAMPANA ANNAPURNA ITI	Government
94	Krishna	CHUKKAPALLI ITI	Government
95	Krishna	VIKRAM ITI	Private
96	Krishna	DR.THAMMA ANANDMEMORIAL PVT ITI	Private
97	Krishna	RANADHIN ITI , CHANDRA SUBHA ITI	Private
98	Krishna	KBR GOVT ITI GUDIVADA	Government
99	Krishna	POTTI SRIRAMULU CHALAVADI MALLIKARJUNA RAO COLLEGE & ENGEERING & TECHNOLOGIES	Private
100	KURNOOL	TIRUMALA I.T.I	PRIVATE
101	KURNOOL	S.V I.T.I NANDYAL	PRIVATE
102	KURNOOL	I.V.R.R.M (I.T.I) NANDYAL	PRIVATE
103	KURNOOL	TGL THIMMAIAH SETHY INDUSTRICAL TRAINING INSTITUTE	PRIVATE
104	KURNOOL	SRI SARODAYA I.T.I	PRIVATE
105	KURNOOL	PENDEKANTI VENKATASUBBAIAH I.T.I	PRIVATE

Sl.No.	District	Name of the VTI	Type of VTI
106	KURNOOL	GOVERNMENT I.T.I, B.Tandrapadu Kurnool	GOVT
107	KURNOOL	RAYALASEEMA I.T.I	PRIVATE
108	KURNOOL	NANDISWARA INDUSTRIAL TRAINING CENTRE	PRIVATE
109	KURNOOL	NATIONAL I.T.I	PRIVATE
110	Mahabubnagar	GovernmentITI, Kalwakurthy	Government
111	Mahabubnagar	Fathima ITC	Private
112	Mahabubnagar	Shivashankar Memorial Private ITI, Balmoor	Private
113	Mahabubnagar	Srinivasa Private ITI, Jedcherla	Private
114	Mahabubnagar	Riti Government ITI	Government
115	Mahabubnagar	GovernmentITI, Gadwal	Government
116	Mahabubnagar	GovernmentITI, Wanaparthy	Government
117	Mahabubnagar	National ITC, Nagarkarnool	Private
118	Mahabubnagar	Palamoor Private ITI	Private
119	Mahabubnagar	DLTC / ITI	Government
120	MEDAK	JOGINATH I.T.C JOGIPET	PRIVATE
121	MEDAK	INDO BRITISH ITI, SADASHIVPET	PRIVATE
122	MEDAK	GOVERNMENT I.T.I, PATANCHERU	GOVERNMENT
123	MEDAK	GOVERNMENT I.T.I, SANGAREDDY	GOVERNMENT
124	MEDAK	SRI SAI ITC SANGAREDDY	PRIVATE
125	MEDAK	ST.ANTHONY'S ITC,R.C.PURAM	PRIVATE
126	MEDAK	SRI BALAJI ITC,ZAHEERABAD	PRIVATE
127	MEDAK	GOVERNMENTI.T.I., MEDAK	GOVERNMENT

Sl.No.	District	Name of the VTI	Type of VTI
128	MEDAK	MEDAK I.T.C	PRIVATE
129	MEDAK	SRI KRISHNA DEVARAYA ITI	PRIVATE
130	Nalgonda	GOVERNMENT ITI BHONGIR	GOVERNMENT
131	Nalgonda	NAVEEN ITI	PRIVATE
132	Nalgonda	RAVINDRANATH TAGORE ITI	PRIVATE
133	Nalgonda	SIDDARTHA ITI	PRIVATE
134	Nalgonda	SRI SHIVA SAI ITI	PRIVATE
135	Nalgonda	KRUSHI ITC BHONGIR	PRIVATE
136	Nalgonda	GOVERNMENT ITI (NEW) NALGONDA	GOVERNMENT
137	Nalgonda	GOVERNMENT ITI (BOYS), NALGONDA	GOVERNMENT
138	Nellore	DR.B.S.R ITC	Private
139	Nellore	SRI KRISHNA DEVARA .ITI COLLEGE	Private
140	Nellore	GOVT I TI (BOYS) NELLORE - 5	Government
141	Nellore	GOVT I T I (G) NELLORE	Government
142	Nellore	NVRN ITC	Government
143	Nellore	NALAM	Government
144	Nellore	VIGNAN ITC AKTHURA NELLORE	Private
145	Nellore	GOVT ITI(B) VENKATA GIRI	Government
146	Nellore	DLTC ITC	Government
147	Nellore	KALYAN CHAKRAVARTHI ITC	Private
148	Nellore	CHARIT ITC	Private
149	Nellore	PRESTIGE INDUSTRIAL TRINING CENTER.	Private

Sl.No.	District	Name of the VTI	Type of VTI
150	Nizamabad	Government ITI (Girls) Nizamabad	Government
151	Nizamabad	GovernmentITI (B)	Government
152	Nizamabad	GovernmentITI (M) Bodhan	Government
153	Nizamabad	Government ITI, Bheemgal (Chokiyagutta)	Government
154	Nizamabad	Shravani ITI, Kamareddy	Private
155	Nizamabad	VIVEKANDA ITC	Private
156	Nizamabad	Sri Venkateswara ITC	Private
157	Nizamabad	Indur I.T.C	Private
158	Nizamabad	Engineers ITC	Private
159	Nizamabad	Government ITI, Kammarpally	Government
160	PRAKASAM	GOVT ITI . ONGOLE	GOVERNMENT
161	PRAKASAM	GOVT ITI FOR GIRLS , ONGOLE	GOVERNMENT
162	PRAKASAM	RAJIV GANDHI MEMORIAL I.T.I	GOVERNMENT
163	PRAKASAM	SRI SIVA NARASIMHA I.T.I COLLEGE , PAMURU	GOVERNMENT
164	PRAKASAM	GOVT ITI MARKAPUR, PRAKASAM DIST	GOVERNMENT
165	PRAKASAM	GOVT I.T.I KANDUKURU	GOVERNMENT
166	PRAKASAM	SRI SIVA SRINIVASA I.T.I COLLEGE	PRIVATE
167	PRAKASAM	JAYA LAXMI ITI	PRIVATE
168	PRAKASAM	SRI BALAJI ITI	PRIVATE
169	PRAKASAM	GOTTIPATI HANUMANTHA RAO MEMORIAL ITC	PRIVATE

Sl.No.	District	Name of the VTI	Type of VTI
170	RANGAREDDY	SATHYA SRI ITC	PRIVATE
171	RANGAREDDY	SRI VINAYA SAI ITC	PRIVATE
172	RANGAREDDY	NAGARJUNA ITC	PRIVATE
173	RANGAREDDY	SRI BHAGAVATHI ITC	PRIVATE
174	RANGAREDDY	SRI AUROBINDO ITC	PRIVATE
175	RANGAREDDY	PNR MEMORIAL ITI	PRIVATE
176	RANGAREDDY	GOVERNMENTITI, MEDCHAL	GOVERNMENT
177	RANGAREDDY	GOVERNMENT ITI, VIKARABAD	GOVERNMENT
178	RANGAREDDY	HYDERABAD ITC	PRIVATE
179	RANGAREDDY	GOVERNMENT ITI, LOTHUKUNTA	GOVERNMENT
180	Srikakulam	GOVT ITI SRIKAKULAM	Government
181	Srikakulam	GOVT ITI RAJAM	Government
182	Srikakulam	GOVT ITI SEETHAMPETA	Government
183	Srikakulam	DR.V.KANITHI'S GOVT ITI ,.PALASA	Government
184	Srikakulam	GAYATHRI PVT ITI	Private
185	Srikakulam	BHARATHI PVT ITI	Private
186	Srikakulam	ST.JOSEPH'S PRIVATE ITI	Private
187	Srikakulam	SIDDARTHA PVT ITI	Private
188	Srikakulam	SRI SAI PVT ITI	Private
189	Srikakulam	SRI KOTA DURGA PVT ITI	Private
190	Visakhapatnam	GOVERNMENT ITI, STEEL CITY	Government

Sl.No.	District	Name of the VTI	Type of VTI
191	Visakhapatnam	GOVT ITI ,INDUSTRIAL ESTETE,VSP.	Government
192	Visakhapatnam	GOVT ITI KANCHARAPALEM,VSP.	Government
193	Visakhapatnam	GOVT ITI PAYAKARAO PET, VISAKHAPATNAM	Government
194	Visakhapatnam	SRI SAI PVT ITI	Private
195	Visakhapatnam	KAKATIYA ITI	Private
196	Visakhapatnam	LOYALA PVT ITI	Private
197	Visakhapatnam	BHARATHA RATNA PVT I.T.I	Private
198	Vizianagaram	GOVT ITI (G) , VIZIANAGARAM	Government
199	Vizianagaram	INDIRA GANDHI AYYAPPA I.T.I BOBBILI	Private
200	Vizianagaram	SRI SRINIVASA I.T.I BOBBILI	Private
201	Vizianagaram	P.S.N.I.T.I VENGAPURAM	Private
202	Vizianagaram	JYOTHI I.T.I PARVATHI PURAM	Private
203	Vizianagaram	BHRAMARAMBA ITI	Private
204	Vizianagaram	BALAJI I.T.I GAJAPATHI NAGARAM	Private
205	Vizianagaram	SRI CHAITANYA I.T.I BOBBILI	Private
206	Vizianagaram	RAMABHADRA GAYATHRI PVT I.T.I	Private

Sl.No.	District	Name of the VTI	Type of VTI
207	Vizianagaram	DR . AMBEDKAR MEMORIAL PVT LTD	Private
208	Warangal	FATIMA I.T.C.	PRIVATE
209	Warangal	GOVERNMENT ITI (BOYS)	GOVT
210	Warangal	GOWTHAM ITI	PRIVATE
211	Warangal	GOVERNMENT ITI (GIRLS)	GOVT
212	Warangal	SUHANA ITI	PRIVATE
213	Warangal	VENUS ITI	PRIVATE
214	Warangal	VINCENT PRIVATE I.T.I	PRIVATE
215	Warangal	RAJIV GANDHI PVT. I.T.I.	PRIVATE
216	Warangal	VIDYARTHI I.T.I.	PRIVATE
217	Warangal	St.Joseph ITC for GIRLS	PRIVATE
218	Warangal	FATIMA I.T.C.	PRIVATE
219	Warangal	GOVERNMENT ITI (BOYS)	GOVT
220	Warangal	GOWTHAM ITI	PRIVATE
221	Warangal	GOVERNMENT ITI (GIRLS)	GOVT
222	Warangal	SUHANA ITI	PRIVATE
223	Warangal	VENUS ITI	PRIVATE
224	Warangal	VINCENT PRIVATE I.T.I	PRIVATE
225	Warangal	RAJIV GANDHI PVT. I.T.I.	PRIVATE
226	Warangal	VIDYARTHI I.T.I.	PRIVATE
227	Warangal	St.Joseph ITC for GIRLS	PRIVATE
228	WEST GODAVARI	Govt . ITI / DLTC	GOVERNMENT
229	WEST GODAVARI	Govt ITI Chintakpudi	GOVERNMENT
230	WEST GODAVARI	Govt ITI Chintalapudi	GOVERNMENT
231	WEST GODAVARI	Sri Rajiv Gandhi Memorial I.T.I	GOVERNMENT

Sl.No.	District	Name of the VTI	Type of VTI
232	WEST GODAVARI	Sri Nallajerla Rama Rao Memorial I.T.I	GOVERNMENT
233	WEST GODAVARI	Ravindra P.I.T.I , Tanuku	GOVERNMENT
234	WEST GODAVARI	Vijaya Bharathi PVT I.T.I Tadepalligudem	GOVERNMENT
235	WEST GODAVARI	Priyadarshini I.T.I	GOVERNMENT
236	WEST GODAVARI	GOVT INDUSTRIAL TRAINING INSTUTTE	GOVERNMENT
237	WEST GODAVARI	GOVT . ITI, BHIMAVARAM	GOVERNMENT

FGD with youth and the number of participants

S. N.	District	No. of FGD	No. of Participant in FGD
1	Adilabad	1	60
2	Anantpur	1	60
3	Chittoor	1	60
4	East Godavari	1	64
5	Guntur	1	61
6	Hyderabad	1	60
7	Karimnagar	1	60
8	Khammam	1	66
9	Krishna	1	60
10	Kurnool	1	61
11	Mahbubnagar	1	61
12	Medak	1	60
13	Nalgonda	1	48
14	Nizamabad	1	60
15	Prakasam	1	60
16	Ranga Reddy	1	61
17	S.P.S.Nellore	1	60

18	Srikakulam	1	60
19	Visakhapatnam	1	60
20	Vizianagaram	1	61
21	Warangal	1	60
22	West Godavari	1	61
23	Y.S.R. Cuddapah	1	60

Projected Figures for districts (based on the demand and supply of workforce distributed as skilled, semi-skilled and minimally skilled)

Workforce Supply Calculation for districts:

Activities with explanation	Reference Data	Assumptions
District wise decedal WPR data trends and population projections have been used to calculate the projections till 2012	Census report on year 1991 & 2001 Census report 2011- Provisional	WPR till 2017 is projected by taking district wise projected population as the base and decadal WPR for the past years
While drawing profile of the Work force, used education and continuously working workforce as the criteria for determining the level of skill, the same criteria will be used to draw the profile. Calculated educational data by considering the enrollment trend in elementary and senior secondary school and number of scholars from Vocational Institutes and Professional colleges Considered NSSO data and validated it state regional/district figures and factored in the final data by incorporating certain numbers as assumed percentatges	District wise Education data from Statistical Abstract report 2011 NSSO data- 65th & 66th Reports	**Skilled People** are the one who are graduates or above as per their education levels and have successfully completed any vocational /Polytechnic courses **Semi-Skilled people** are the people who have senior secondary education and have worked for 2-3 years and have acquired the required skills have become skilled people. Around **5% of semiskilled peopl**e acquire hard skills by experience and become skilled labour (calculated year on year basis) **Minimally skilled people** are the ones who have education till secondary level and without working experience (consistently) Around **2% of minimally skilled populatio**n acquire the primary skills on the job/experience and become semi skilled workforce (calculated year on year basis)

Workforce Demand Calculation for districts:

Activities with explanation	Reference Data	Assumptions
Trend analysis using linear regression (using the method of least squares) model has been applied for predicting the future trends based on the past trends of a certain values GDP for a district is projected based on previous years data (historical data pattern considered)	District wise GDP data points for the past few years has been taken from Directorate of Economics & Statistics report used for projections	
Value per worker for Agriculture, Industry & Service sector have been considered as given in the planning commission report. Applied the assumption that value per worker for a region would be same as that of the state	Planning Commission Report	In Agriculture (Primary Sector), around 47% workforce is minimally skilled,36% is semi-skilled and rest 15% is skilled In Industry (Secondary Sector), around 65% workforce is minimally skilled, 30% is semi-skilled and rest 5% is skilled In services (Tertiary Sector), around 36% are minimally skilled, 29% are semi-skilled,34% people are skilled Rate for Value per worker across sectors has been taken from the rates published in Planning Commission report across sectors for the State
After estimating the projected GDP and Value per worker; data points shall be applied further to derive overall workforce demand by using the below formula: $\frac{\text{GDP of the region (for a particular sector : Agriculture/ Industry/ Services)}}{\text{Value per worker for that particular sector}}$		

Post district wise total workforce demand, further drilling down of workforce under various sub sectors shall be done by applying value per worker mapped against specific sector	Planning Commission Report	Sub sector value per figure has been taken from the Planning commission report Rate for Value per worker across sub sectors has been taken from the rates published in Planning Commission report across sectors for the State Percentages from Primary Survey across sectors in skilled, semi-skilled and minimally skilled are the percentages assigned for sectoral workforce composition

*** the projected figures of the districts in annexure are purely statistical based on the methodology adopted and the gap suggested in the report is based on the qualitative and quantitative analysis carried out by the field study for skilled, semi-skilled and minimally skilled workforce determined as per each districts' specifications and demographic conditions; these numbers were projected to effectively calculate the districts conditions in terms of workforce and provide state a base figure to work upon*

This report has been prepared by **Accenture**.

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