



Defining Skill Stock

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Recognizing the need to take stock of ‘skills’ that people in the country have, whether acquired formally or through non-formal channels such as self-learning or on-the-job, NSDC had leveraged the Consumer Pyramids Household Survey (CPHS) run by the Centre for Monitoring Indian Economy (CMIE). Skill-related questions were incorporated in the 13th round of the CPHS (conducted in January-April 2018) to understand the stock of skills.

The guiding principle used to understand skills is the following definition stated by the National Sample Survey Organization (NSSO):

‘Any marketable expertise, however acquired, irrespective of whether marketed or not, and whether the intention is to market it or not, is considered as skill. Thus, a person holding a certificate/ diploma on an appropriate subject will be considered to possess the specified skill along with persons who have acquired the said skill without any such certificate/ diploma or even without attending any institution. When a person has acquired skill in more than one trade, the skill in which he is more (most) proficient is considered as his skill.’

This definition superseded an earlier one by NSSO, wherein it had described skill as the acquired skill of using scientific or mechanical devices in a production process. The skill may be acquired under the personal guidance of trained technicians, or through personal effort, or may be learnt in any technical institution with or without getting any degree, diploma or certificate. Thus, for example, in the case of a typist having a certificate, he / she was considered as having the skill ‘typing’. Only those persons who were able to offer themselves for skilled work in the labour market on the strength of their skill were considered as possessing skill.

This paper provides a literature survey outlining various concepts and definitions of skill stock followed by different countries¹.

¹ A detailed report based on the survey findings has been prepared. It includes this literature survey.

Examples of how the skill stock is defined and measured in different countries

Country	Source	Defined Skilled / Unskilled	Definition	Indicator
Hong Kong	Hong Kong Council of Social Service	Unskilled Worker	<p>20.2% of employed persons classified as ‘unskilled labour’ (2016).</p> <p><u>Unskilled labour</u>: Workers in the elementary occupations as defined by the Census and Statistics Department. These include: Street vendors; domestic helpers and cleaners; messengers; private security guards; watchmen; freight handlers; lift operators; construction laborers; hand packers; food preparation assistants; agricultural and fishery laborers.</p>	Occupation
		Advanced managerial and technological skills	<p>39% of occupied jobs in the employed population requiring <u>advanced managerial and technological skills</u> (2016) – managers and administrators, professionals and associate professionals.</p>	Occupation
South Africa	Statistics South Africa	Skilled Worker	<p>In 2014, low-skilled labor was 4.3 million, semiskilled 7 million, and skilled 3.8 million. Growth over the period 1994-2014: 49%, 66%, 108%, respectively.</p> <p><u>Low-skilled</u>: Those with ‘elementary’ skills and domestic workers; <u>Semiskilled</u>: Includes clerks, sales & service, skilled agriculture, craftsmen, machine operators; <u>Skilled</u>: Managers, professionals and Technicians</p>	Occupation
Vietnam	Ministry of Labor, Invalids and	Skilled Worker	<p>Skilled labor force includes people aged 15 years and over that hold a certificate / degree with a training</p>	Education

	Social Affairs and General Statistics Office		duration of three months and above. As per labor employment surveys, 20% of the Vietnamese labor force was skilled: Primary Vocational (3.1%), secondary vocational (1.4%), prof-secondary school (3.7%), vocational college (0.3%), professional college (2.7%) and university and higher (9.1%)	
Vietnam	International Labour Organization (ILO) and Institute of Labor Science and Social Affairs	Skilled Worker	Skilled workers are defined as those who currently hold leadership/management/administration, professional or technician/associate professional positions. In 2014, Vietnam has nearly 5.4 million skilled workers, including 585,000 leaders, managers and administrators (10.9% of the total skilled workforce), 3,165,000 professionals (58.7%) and 1,638,000 technicians and associate professionals (30.4%)	Occupation
Germany	Germany Trade and Invest	Skilled Craftsmen	Germany Trade and Invest, the economic development agency of the Federal Republic of Germany uses Federal Statistical Office data to classify its workforce by level of professional education. In 2015, German workforce was allocated to the following categories: Skilled Craftsmen, i.e., apprentices from dual education (52%), University Graduates (21%), Graduates from vocational colleges and technicians, master craftsman (10%) and Unskilled (18%). ²	Education and Vocational Training

² Formula used for obtaining India-level estimates: 1) Persons having at least a University degree; 2) Persons who have a Diploma certificate; 3) Persons with vocational/technical education; 4) Persons who reported that they have acquired skills through informal sources

Multiple	UNDP	Skilled Worker	UNDP measures skilled labour force as a percentage of the labour force aged 15 years and above with intermediate or advanced education, as classified by the International Standard Classification of Education (ISCE) (Class 10 th and above). It defines labour force as a country's working-age population that engages actively in the labour market, either by working or looking for work.	Education
India	NSSO	Skilled Worker	Any marketable expertise, however acquired, irrespective of whether marketed or not, and whether the intention is to market it or not, is considered as skill. Thus, a person holding a certificate/ diploma on an appropriate subject will be considered to possess the specified skill along with persons who have acquired the said skill without any such certificate/ diploma or even without attending any institution. When a person has acquired skill in more than one trade, the skill in which he is more (most) proficient is considered as his skill.	-
Latin America	Brambilla et al. (2011)	Skilled Worker – Semi-skilled and Highly skilled	According to a paper written by Brambilla et al. (2011), which was published in The World Bank Economic Review, skilled labour is defined as individuals who hold a high school diploma or more. Out of these, individuals who hold a high school diploma are <u>semi-skilled</u> , while those who hold more than a high school diploma (individuals with tertiary education, some college experience, college degree, and graduate degree) are <u>highly skilled</u> .	Education

OECD Countries	OECD Social, Employment and Migration Working Paper	Highly Skilled Migrant Worker	Migrant population in OECD countries is categorized as ‘highly skilled’ based on education and occupation. It comprises of individuals who have completed post-secondary education (university-level) which includes those who have a vocational, technical or professional qualification of a shorter duration than a bachelor’s degree as defined in the ISCE, or those who are in managerial, professional or associate professional occupations as defined in the International Standard Classification for Occupations (ISCO).	Education and Occupation
US	The Social Studies Help Center	Skilled and Unskilled Worker	<u>Skilled labor</u> refers to workers who have received specialized training to do their jobs. They have developed and honed a special skill and may or may not need to be licensed or certified by the state. For example, carpenters, plumbers, electricians, engineers, accountants, police etc. <u>Unskilled labor</u> comprise of workers who have received no special training and have few specific skills. Examples are construction workers, painters, factory assembly line workers etc.	Occupation



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About National Skill Development Corporation (NSDC): National Skill Development Corporation, working under the aegis of Ministry of Skill Development & Entrepreneurship, is a unique public-private-partnership which aims to catalyze creation of quality vocational training ecosystem in India. The organisation provides funding to build scalable and profitable vocational training initiatives. Its mandate is also to enable support system which focuses on quality assurance, information systems and train-the-trainer academies either directly or through partnerships. Since establishment in 2009, NSDC has trained more than 2 crore people through its partnership with 600+ training partners, wide a robust network of 11,000+ training centers spread over 600 districts across the country. NSDC has institutionalized 37 Sector Skill Councils and is also implementing Government's flagship skill development schemes such as Pradhan Mantri Kaushal Vikas Yojana (PMKVY), Pradhan Mantri Kaushal Kendra (PMKK), National Apprenticeship Promotion Scheme (NAPS), among others.

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