



A RESEARCH PAPER ON MATHEMATICAL STUDY ON SKILL INDIA SCHEME OF CENTRAL GOVERNMENT FOR THE STATE OF GUJARAT.

Statistics

Dr. Pratik Trivedi Head, Dept. Of. Stats. Shree Narayana College of Commerce Ahmedabad

ABSTRACT

Skill is something which we born with. It is found interesting that a government of a country is taking an initiative to find out the skills of their people. The study on various aspects of skill India with context of Gujarat is required to study in order to put a mathematical model in front of youth of our country and our state of Gujarat.

KEYWORDS

Skill Development is an important indicator of a country's economic productivity, as it is an enabler of productivity and employability. In comparison to developed countries, where the percentage of skilled workforce is between 60% - 90% of the total workforce, India records a low 5% of workforce (20-24 years) with formal vocational skills. The Indian Government has accordingly identified and prioritized skill development as a critical contributing factor in its growth story with an identified goal to skill 500 million individuals by 2022.

The Government of India acknowledges that a lot needs to be done to engender more employment opportunities for the majority of Indians, to enable them to participate in and contribute to India's growth. A knowledge economy requires India to develop workers –workers and knowledge technologists both - who are flexible, analytical and can be the driving force for innovation and growth. Countries that have had the most rapid increases in educational attainment, as well as sustained economic growth, have upgraded education sequentially. In a globalized economy, a large pool of skilled workers is a prerequisite for attracting foreign direct investment. Developing skilled workers enhances the efficiency and flexibility of the labor market; skills-related bottlenecks are reduced, and also improve their job mobility. It is crucial to invest in quality secondary and tertiary education and in vocational education and training (VET) if India's economy is to develop and remain competitive in world markets.

Key statistics pertaining to employment situations in India [2009-10]

YEAR	GDP growth rate	Projected employment (in million)			
		Agriculture	Industry	Services	Total
2011-2012	9%	229.2	105	153.5	487.7
	7%	225.4	102	149	476.4
	5%	221.5	99.1	144.6	465.2
2016-2017	9%	240.2	126.2	189.5	555.9
	7%	232	116.8	174.8	523.5
	5%	224	108	161.2	493.3

- Few facts and figures
- 54% of India's population is below 25 years of age and over 62% of the population is the working-age group. Yet, only 4.69% of the Indian population has undergone formal skills training.
- 93% of India's workers work in the unorganized sector and acquire skills through informal channels and lack formal certification.
- Recent skill gap reports suggest that over 109 million incremental human resources will be required in India alone, across 24 key sectors by the year 2022.

There is a large population which is unskilled due to unavailability of sufficient infrastructure due to which they are unable to get decent employment. Moreover, there is a concern of low productivity due to inadequate skilling. This has resulted in a dismal inclusive growth in the country.

KEY SECTORS	GROWTH IN MANPOWER REQ. BY CAGR 2008-2022	HUMAN RESOURCES REQUIREMENT ACROSS SELECT SECTORS TILL 2022 (IN MILLIONS)
Auto & Auto components	9.8 %	35

Building & Construction industry	6.2 %	33
Textile & clothing	4.0 %	26.2
Organized Retail	33.8 %	17.3
Real Estate	6.0 %	14.0
IT and ITes	9.2 %	5.3
Gems and Jewellery	6.5 %	4.7
Leather and Leather goods	7.6 %	4.5
BFSI	5.0 %	4.3

• Schemes and Programmes :

The Union Cabinet chaired by the Prime Minister Shri Narendra Modi has approved the Pradhan Mantri Kaushal Vikas Yojana (PMKVY) with an outlay of Rs. 12,000 crore to impart skilling to one crore people over the next four years (2016-2020). PMKVY will impart fresh training to 60 lakh youths and certify skills of 40 lakh persons acquired non-formally under the Recognition of Prior Learning (RPL). The government has set a target to provide skill training to about 40 crore people by 2022. Some of the flagship schemes of Government of India on skill development are highlighted in the table below:

Pradhan Mantri Kaushal Vikas Yojna	Pradhan Mantri Kaushal Vikas Yojana (PMKVY) is the flagship outcome-based skill training scheme of the new Ministry of Skill Development & Entrepreneurship (MSDE). The objective of this skill certification and reward scheme is to enable and mobilize a large number of Indian youth to take up outcome based skill training and become employable and earn their livelihood. Under the scheme, monetary reward would be provided to trainees who are successfully trained, assessed and certified in skill courses run by affiliated training providers
Vocationalisation of Secondary Education	The Centrally Sponsored Scheme of Vocationalisation of Secondary Education provides for diversification of educational opportunities so as to enhance individual employability, reduce the mismatch between demand and supply of skilled manpower and provides an alternative for those pursuing higher education
Star Scheme	The National Skill Certification and Monetary Reward Scheme, known as STAR (Standard Training Assessment and Reward), was operational between August 2013 and September 2014. NSDC is the designated implementing agency of the scheme and is working through various Sector Skill Councils (SSCs), Training Providers (TPs) and independent Assessment Agencies (AAs)
Craftsmen Training Scheme	The scheme aims to provide a supply of semi-skilled labour and reduce unemployment among the educated youth. The period of training for various trades varies from six months to two years and the entry qualification varies from 8th to 12th class pass, depending on the requirements of training in different trades. About 70% of the training period is allotted to practical training and the rest to theoretical training relating to Trade theory, Workshop Calculation & Science, Engineering Drawing, Social Studies including environmental science & family welfare.

Women Training	A network of institutes, both under Central & State Governments, has been setup to extend vocational training facilities solely to women which aim at stimulating employment opportunities among women of various socio-economic levels and different age groups. Vocational Training is presently being provided in diverse fields such as Electronics Mechanic, Secretarial Practice, Architectural Draughtsman ship, Hair & Skin Care, Computer Operator and Programming Assistant, Dress Making, Catering & Hospitality, Interior Decoration & Designing etc.
Apprenticeship scheme	Apprenticeship scheme aims to provide in-house training to employees working in the company. Training comprises Basic Training and Practical Training followed by Related Instructions as per prescribed syllabus for each trade.
Modular employable skills scheme	Modular employable skills scheme focuses on the delivery of short-term courses of the National Council for Vocational Training (NCVT) with the objective of providing employment.

• Gujarat Scenario:

The demographic and social profile of Gujarat presents a unique human resource opportunity for economic growth through manpower skilling. Priority sectors from a manpower development perspective include Textiles and Apparel, Chemical and Chemical Products, Auto and Auto Components, Engineering Goods; Port based industries, Banking and Financial Services, Transportation and Logistics, Retail and IT/ITES. Priority districts from a manpower development perspective include the cities/towns of Ahmedabad, Vadodara, Surat, Kutch, Rajkot, Jamnagar, Gandhinagar and Bharuch. Keeping in view the current position of the state, along with possible economic growth that could be facilitated in various sectors through favourable policies, an estimate of the additional increase in incremental manpower requirement during XII plan (2012-17) and XIII plan (2017-22) periods, would be over 3 million and 2.63 million respectively. Demand Supply gap estimates indicate a need to improve participation rates in semiskilled categories along with providing vocational skills to high skilled labour force as well, considering the high level of employment opportunities in semi-skilled category within the state. Gujarat has a significant demographic dividend in the near term, with a rising working age population.

- Between 2012 and 2017, an additional 60.51 lakh are expected to enter the working age group population followed by another 56.67 lakh during 2017-22 (these are Gross numbers, without netting off retirees).
- Considering the historical trends in labour participation rates of Gujarat, the state would witness a gross addition of 35.15 lakh and 32.90 lakh people to its labour force (i.e. portion of the working age population willing to seek employment and work) during 2012-17 and 2017-22 respectively). Further accommodating for retirement from the existing pool of labour force, Gujarat is expected to register a net addition of 20.41 lakh to the labour force during 2012-17, and another 15.83 lakhs during 2017-22.
- Labour force measured from number of people looking for employment in the working age group is expected to reach 259 million by 2022.
- Gujarat has significant regional variations in manpower requirements with the districts of Ahmedabad, Surat, Vadodara, Rajkot, Kutch, Bhavnagar and Gandhinagar expected to drive the employment growth during 2012- 22. On the other hand, the districts of Dangs, Narmada and Tapi would be expected to have low potential to absorb trained youth, indicating that these regions could become training ground for skilled manpower to be placed in industrial clusters of Ahmedabad, Surat and Vadodara.
- Details of district wise incremental manpower break up along with key sectors accounting for the major employment share are presented in the table.

District	Manpower Req. 2012-17	Manpower Req. 2017-22	Focus Sector
Anand	76,021	64,703	Food & Agriculture, Engineering & Auto parts, Chemicals, Port & Ship, Building, Minerals and Cement
Surendra nagar	71,283	60,950	Textiles, Chemicals and Ceramics

Dahod	64,919	56,323	Food products, rubber and plastic products and mineral based industries
Navasari	61,337	52,061	Food processing, textiles, drugs and pharmaceuticals
Amreli	56,666	48,645	Engineering Goods, Port and ship, building, Mineral processing and cement
Patan	46,027	39,067	Food processing, paper and pulp and cotton based industry
Porbandar	28,898	23,643	Port ship building, cement industry, mineral based industries
Tapi	28,162	24,077	Agro based industries, Textiles
Narmada	26,332	22,020	Textiles, food & agriculture and chemicals
The Dangs	17,610	15,218	Agri allied activities, wood and wooden products, food processing
Ahmedabad	4,03,268	3,44,989	Textile and apparel, chemicals & chemical products, drugs and pharmaceutical, agro and food processing, automobiles, engineering, electronics, IRTES, Hospitality, Banking & Financial services
Surat	3,79,442	3,28,062	Textiles and Apparel, Chemicals & chemical products, Gems & Jewellery, Drugs and Pharmaceutical, Ports and IT-ITES
Vadodara	2,62,543	2,23,794	Chemicals & Petrochemical, Pharmaceutical, Biotechnology
Rajkot	2,00,565	1,73,261	Engineering and electronics, Textile & apparel, Chemicals infrastructure
Kutch	1,54,526	1,31,970	Minerals, Port based industries, Marine Chemicals, Engineering, Infrastructure Projects, Chemicals, Ceramics and Textiles
Valsad	1,34,276	1,14,841	Chemicals, textiles, horticulture and paper industry
Bhavnagar	1,33,884	1,13,537	Diamond cutting & polishing, cement & gypsum, inorganic salt based and marine chemicals , shipbuilding , ship repair, oxygen, foundry, re rolling, ceramics, fabrication and food processing industries
Gandhinagar	1,25,415	1,04,313	Food processing, Electronics, Textiles IT-ITES
Bharuch	1,22,415	1,05,740	Chemicals, Petrochemicals & Pharmaceuticals, Engineering, Ports & Ship building, Textiles
Kheda	1,09,427	92,949	Agriculture, Mineral based industries, Plastics, Engineering, and IT-ITES

Conclusion :

One must admire and appreciate the initiatives taken in the direction of skill and development in our country. Any new horizon open in the field of education is always welcomed by wise people. The state of Gujarat has immense capacity of outsourcing our talented and skilled youth to all part of our country and world with the support of central and state government. The upcoming five years is going to be path changing for the youth of state and country as we are the youngest amongst the all the Asian countries.

REFERENCES

- 1) skillindia.gov.in
- 2) Planningcommission.gov.in
- 3) FICCI paper on skill India (2012-2017)
- 4) HDI report UNDP-2015
- 5) NSDC report 2012-2017
- 6) NSDC skilled report on Gujarat 2012-2017
- 7) District wise skilled gap report on ministry of NITI-AAYOG
- 8) Vibrant Gujarat skilled Gap report 2012-2017