

Executive Summary

National Skill Development Corporation (NSDC) had mandated KPMG Advisory Services Pvt Ltd to undertake a District-level Skill Gap Study of the state of Haryana, involving various Departments of the Government of Haryana and Industry Bodies as key stakeholders. The study focused on identifying district-wise incremental skilling requirements in Haryana during the period 2012-22, for the potential growth sectors in the state. A roadmap for skill development initiatives in the state is proposed with recommendations for key stakeholders. Extensive district level primary interactions, including discussions with industries, vocational training providers and Government officers, were conducted. Focused group discussions were organized to understand youth aspirations towards employment. Global and Indian best practices in skill training have also been studied.

The demographic and social profile of Haryana presents a unique human resource opportunity for economic growth through manpower skilling. As per KPMG estimates, Haryana has a significant demographic dividend in the near term, with a rising working age population. Between 2012 and 2017, an additional 26.48 lakh are expected to enter the working age group population followed by another 24.21 lakh during 2017-22 (these are Gross numbers, without netting off retirees). Considering the historical trends in labour participation rates of Haryana, the state would witness a gross addition of 12.74 lakh and 11.65 lakh people to labour force (i.e. portion of the working age population willing to seek employment and work) during 2012-17 and 2017-22 periods respectively. Accommodating for retirement from the existing pool of labour force, Haryana is expected to register a net addition of 7.27 lakh to the labour force during 2012-17, and another 4.96 lakhs during 2017-22.

Period	Demand for Human Resource due to new jobs created (Lakhs)	Gross Addition in Working Age Population – Supply (Lakhs)	Gross Addition to Labour Force – Supply (Lakhs)	Net Addition to Labour Force – Supply (Lakhs)	Gap between demand and Net Supply (Lakhs)
2012-17	18.48	26.48	12.74	7.27	11.21
2017-22	18.62	24.21	11.65	4.96	13.66

Manpower supply has regional variations along social and gender dimensions in Haryana. District-wise incremental supply estimates indicate significant regional concentration in the leading six districts of Faridabad, Hisar, Bhiwani, Gurgaon, Karnal and Sonipat, accounting for nearly 40 percent of the total supply. Backward regions like Gurgaon, Mewat, Faridabad, Palwal and Panipat have to be given special focus, considering the seasonal work-related migration, stemming from socio-economic backwardness and lack of sustainable local livelihood/employment opportunities in these areas. Role of women in capacity building – especially in improving labour participation rates - cannot be undermined, with a high proportion of rural female engaged in agri-allied activities in the rural districts. Considerations of industry towards employing female workforce in manufacturing enterprises, specifically in medium-small scale category, should be addressed through suitable awareness creation and policy initiatives that can help improve labour participation rates of women and help Haryana bridge its human resource demand-supply gap in

future. Further, there is a need to emphasize special focus on skilling and empowering of women in districts with a low proportion of female population.

Keeping in view the current position of the state, along with possible economic growth that could be facilitated in various sectors through favorable 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 1.85 million and 1.86 million respectively. In XII plan period, the targets of job opportunities to be created per annum could be set at around 3.7 lakhs on an annualized basis.

Incremental human resource requirements in the state have significant geographical and sectoral variations. Priority sectors from a manpower development perspective include Education & Training, Communication, Healthcare, BFSI, Retail, Construction, IT / ITeS, Auto – Auto Components etc. Priority districts from a manpower development perspective include Panipat, Faridabad, Sonapat, Gurgaon, Karnal, Bhiwani, Mewat and Palwal.

District	Incremental Manpower Requirement		Focus Sectors
	2012-17	2017-22	
Mahendragarh	18,856	21,067	Manufacturing: Construction Based Materials, Food Processing, Construction Services: Transportation & Logistics, Healthcare, Retail , Banking and Financial Services
Kaithal	38,711	37,518	Manufacturing: Construction Based Materials, Food Processing, Construction, Fabricated Metal Services: Transportation & Logistics, Healthcare, Retail , Communication, Banking and Financial Services
Sirsa	42,221	44,315	Manufacturing: Construction Based Materials, Construction, Food Processing, Agro Based Industries Services: Transportation & Logistics, Retail, Education and Training, Banking and Financial Services, Hospitality
Fatehabad	48,793	44,899	Manufacturing: Construction Based Materials, Construction, Food Processing Services: Transportation & Logistics, Education and Training, , Communication, Banking and Financial Services, Hospitality
Jind			Manufacturing: Construction Based Materials, Construction, Food

	44,670	46,060	Processing Services: Transportation & Logistics, Retail, Banking and Financial Services
Rewari	53,952	53,539	Manufacturing: Construction, Auto Auto Components, Engineering, Electrical and Electronics, Fabricated Metals Services: Transportation & Logistics, Education and Training, , Communication, Banking and Financial Services, Hospitality
Kurukshetra	55,297	54,462	Manufacturing: Construction Based Materials, Construction, Food Processing Services: Transportation & Logistics, Retail, Banking and Financial Services
Jhajjar	60,508	62,942	Manufacturing: Construction Based Materials, Construction, Fabricated Metal Services: Transportation & Logistics, Retail, Banking and Financial Services
Karnal	62,704	61,136	Manufacturing: Construction Based Materials, Construction, Fabricated Metal Services: Transportation & Logistics, Retail, Banking and Financial Services, Healthcare , Communication
Rohtak	60,983	64,586	Manufacturing: Construction Based Materials, Construction, Food Processing , Engineering Products Services: Transportation & Logistics, Retail, Banking and Financial Services
Bhiwani	63,959	64,322	Manufacturing: Construction Based Materials, Construction, Guar Gum, Rubber and Plastics Services: Transportation & Logistics, Retail, Banking and Financial Services
Mewat	67,867	69,691	Manufacturing: Construction Based Materials, Construction, Auto Auto Components, Rubber and Plastics Services: Transportation & Logistics, Healthcare, Communication,

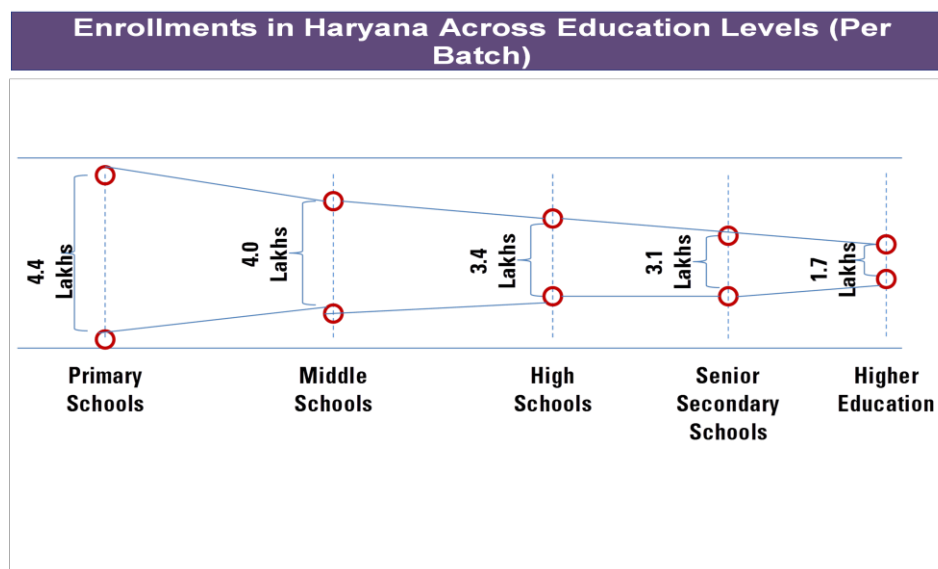
			Banking and Financial Services
Yamunanagar	71,403	72,223	Manufacturing: Construction Based Materials, Construction, Fabricated Metal, Food Processing Paper and Paper Products, Beverages Services: Transportation & Logistics, Retail, Banking and Financial Services
Palwal	82,895	81,666	Manufacturing: Construction Based Materials, Construction, Food Processing , Fabricated Metal Services: Transportation & Logistics, Retail, Banking and Financial Services, Healthcare
Panipat	101,825	98,138	Manufacturing: Construction Based Materials, Construction, Textiles, Engineering, Chemical and Chemical Products Services: Transportation & Logistics, Retail, Banking and Financial Services, Healthcare
Panchkula	93,992	94,285	Manufacturing: Construction Based Materials, Construction, Food Processing , Fabricated Metal, Pharma and Medicine, Engineering, Electrical and Electronics Services: Transportation & Logistics, Retail, Banking and Financial Services
Hisar	102,567	98,687	Manufacturing: Construction Based Materials, Construction, Food Processing Services: Transportation & Logistics, Retail, Banking and Financial Services, Education and Training
Ambala	126,217	121,571	Manufacturing: Construction Based Materials, Construction, Scientific Instruments, Food Processing , Fabricated Metal Services: Transportation & Logistics, Retail, Banking and Financial Services, Education and Training, Communication
Sonipat	138,301	137,533	Manufacturing: Construction Based Materials, Construction, Scientific Instruments, Food Processing , Fabricated Metal, Chemical and Chemical Products, Beverages, Auto Auto Components Services: Transportation & Logistics, Retail, Banking and Financial

			Services, Education and Training, Communication, IT/ ITeS
Faridabad	187,448	210,094	<p>Manufacturing: Construction Based Materials, Construction, Scientific Instruments, Fabricated Metal, Auto Auto Components , Chemical and Chemical Products, Beverages, Food Processing</p> <p>Services: Transportation & Logistics, Retail, Banking and Financial Services, Education and Training, Communication, IT/ ITeS</p>
Gurgaon	263,998	270,075	<p>Manufacturing: Construction Based Materials, Construction, Scientific Instruments, Fabricated Metal, Auto Auto Components Engineering, Electrical and Electronics</p> <p>Services: Transportation & Logistics, Retail, Banking and Financial Services, Education and Training, Communication, IT/ ITeS</p>

An overview of the current enrolment status across levels of education helps provide an estimate of emerging capacity gaps over the next decade or so. With current primary enrolments (5 years) in Haryana standing at 22 lakhs, there is a need to increase higher education capacity, to accommodate this population as they graduate from school, in line with the GER targets (set at 30% by the end of 12th plan period 2012-17, pan-India). Even on conservative estimates, Haryana will need to nearly double higher education capacity by 2017, to achieve this.

Our estimates also indicate that the human resource demand-supply gap will be quite high in the semi-skilled category, and a portion of those with higher education degrees, would also get absorbed in this category of jobs. Hence vocational education needs to be provided to them as well.

Enrolments in Haryana across Education Levels



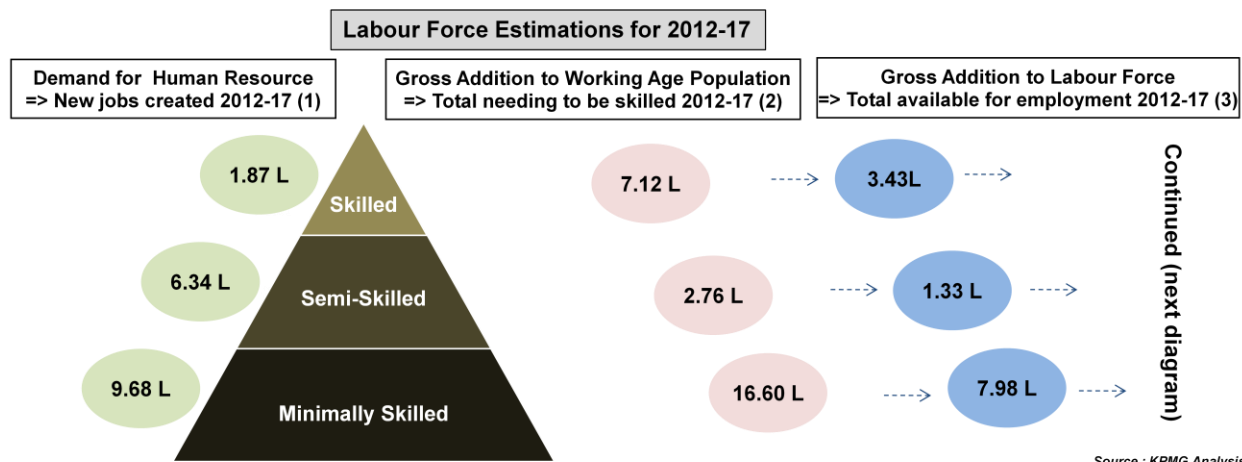
Source :KPMG Analysis

Vocational education has a key role to play in the educational system of Haryana, which has a relatively low capacity in higher education. While significant drop out rates are witnessed after school education across the state, resulting in low enrolments in higher education, districts of Mewat, Palwal and Panipat have considerably high dropouts even at the school level.

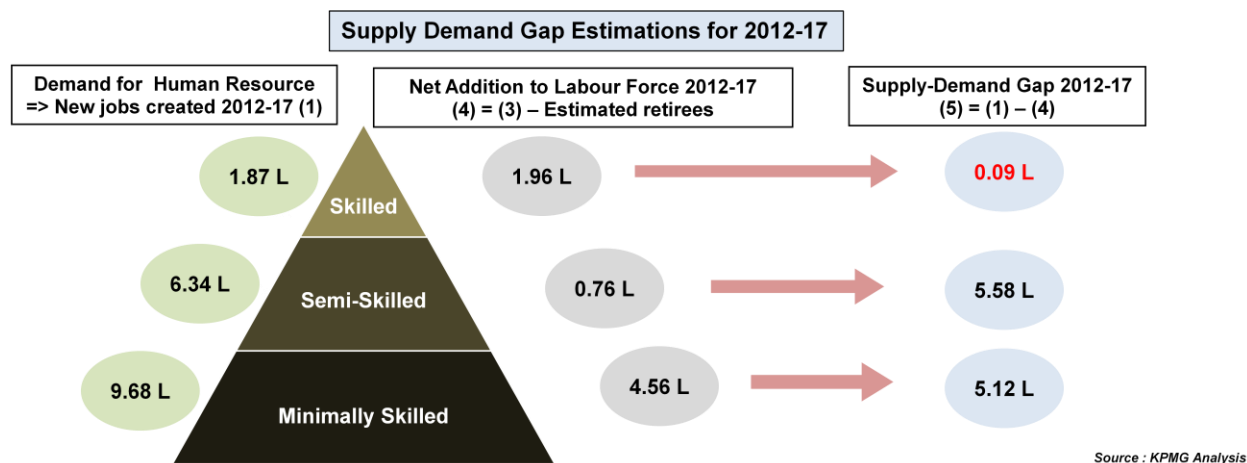
Interventions in vocational education to bridge the gaps in the educational system (within the schooling stage itself) and provide seamless options for students to pursue vocational education would be crucial in developing a holistic approach to address the skilling needs of the state. A comparison of vocational education capacities in the state would show that density of vocational infrastructure measured as number of seats available for 1000 people is high in the districts of Rohtak, Jhajjar, Hisar, Ambala and Panchkula and low in Panipat, Faridabad, Mewat and Palwal districts. Capacity expansion in vocational education and augmentation of private participation is needed through region specific initiatives considering the current level of variations among the districts.

Assessment of existing training infrastructure in comparison to human resource demand over XII Plan period indicates significant capacity expansion requirement for semi-skilled category through vocational education. Demand-Supply gap estimates indicates a need to improve participation rates in semi-skilled 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. Further, employability of highly skilled graduates is an issue owing to misalignment of courses with industry needs and poor quality of institutes. Issue of low employability of graduates has to be addressed through suitable up-skilling considering local industrial requirements in order to ensure availability of industry ready manpower.

Haryana Human Resource Supply-Demand Gap Estimations for 2012-17

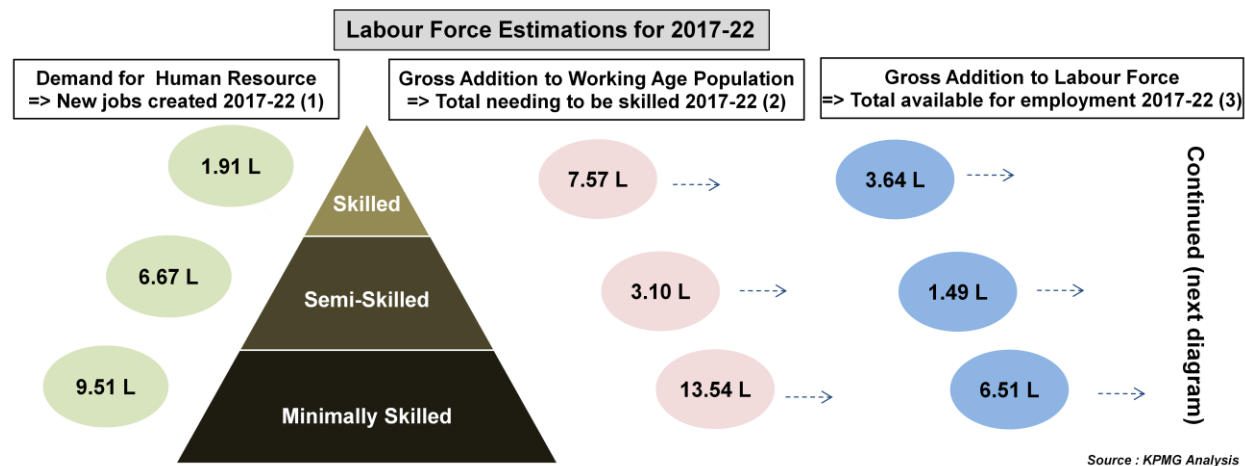


- 1. Demand for Human Resource:** Estimated number of additional employment opportunities created in the state based on sectoral growth
- 2. Gross Addition to Working Age Population:** Estimated new entrants into working age, needing some level of skilling (minimal/semi-skilled/skilled)
- 3. Gross Addition to Labour Force:** Portion of the Gross Addition to Working Age Population, who actively seek employment

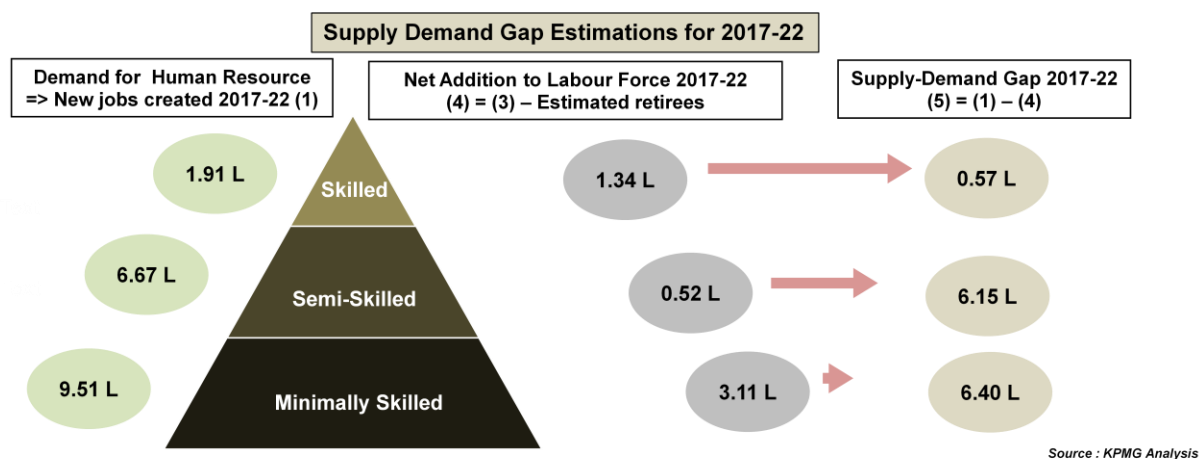


- 4. Net Addition to Labour Force:** Gross Addition to Labour Force minus retirees – i.e. net new labour force available to meet new human resource demand arising from sectoral growth
- 5. Supply of Human Resource:** Difference between Demand for Human Resource (1) and Net Addition to Labour Force (4)

Haryana Human Resource Supply-Demand Gap Estimations for 2017-22



- 1. Demand for Human Resource:** Estimated number of additional employment opportunities created in the state based on sectoral growth
- 2. Gross Addition to Working Age Population:** Estimated new entrants into working age, needing some level of skilling (minimal/semi-skilled/skilled)
- 3. Gross Addition to Labour Force:** Portion of the Gross Addition to Working Age Population, who actively seek employment



4. Net Addition to Labour Force: Gross Addition to Labour Force minus retirees – i.e. net new labour force available to meet new human resource demand arising from sectoral growth

5. Supply of Human Resource: Difference between Demand for Human Resource (1) and Net Addition to Labour Force (4)

District level variations in Demand-Supply gap indicate the need for geography specific initiatives to address the skilling issues. Skill Category wise Demand-Supply gap estimations for the districts of Haryana are presented in the table below.

	Demand Supply Gap 2012-17				Demand Supply Gap 2017-22			
	Skilled	Semi skilled	Minimally skilled	Total	Skilled	Semi skilled	Minimally skilled	Total
Haryana	(8,809)	556,983	511,785	1,059,959	57,402	614,897	640,338	1,312,637
Ambala	2,296	25,030	65,928	93,254	4,395	26,959	67,728	99,081
Bhiwani	(4,933)	17,469	7,759	20,295	(1,527)	20,311	15,746	34,531
Faridabad	11,607	72,340	61,663	145,609	20,779	89,995	70,773	181,548
Fatehabad	(665)	11,523	(4,505)	6,352	363	11,077	4,502	15,941
Gurgaon	26,767	115,781	93,163	235,711	32,274	122,837	95,664	250,775
Hisar	(1,793)	18,418	21,039	37,664	1,076	21,560	31,768	54,404
Jhajjar	(6,877)	16,473	14,585	24,181	(3,011)	19,736	21,430	38,156
Jind	(9,537)	11,799	(7,272)	(5,011)	(5,163)	14,533	2,793	12,163
Kaithal								

	(3,090)	12,908	(3,020)	6,798	(1,271)	12,840	4,176	15,744
Karnal	(2,955)	18,546	14,361	29,951	(525)	19,075	20,238	38,788
Kurukshetra	(3,375)	17,129	16,011	29,765	(930)	17,382	20,590	37,042
Mahendragarh	(12,641)	5,026	7,044	(572)	(7,960)	6,739	9,032	7,811
Mewat	2,870	24,982	14,353	42,205	3,290	25,998	22,894	52,182
Palwal	4,843	28,337	22,773	55,953	5,423	28,583	29,278	63,284
Panchkula	12,145	40,288	26,238	78,670	13,289	42,971	27,571	83,831
Gurgaon	34	26,647	42,065	68,746	2,338	26,527	46,705	75,569
Rewari	(3,027)	12,867	18,217	28,057	(614)	14,639	21,846	35,871
Rohtak	(10,754)	13,777	31,205	34,228	(5,169)	18,641	32,859	46,331
Sirsa	(1,679)	13,921	(20,403)	(8,162)	281	13,999	(4,341)	9,939
Sonapat	(3,839)	35,463	67,082	98,707	1,202	39,771	69,545	110,518
Yamunanagar	(4,206)	18,261	23,501	37,556	(1,137)	20,726	29,540	49,130

The state has significant scheme training opportunities through Government schemes. During the five year period 2012-17 major schemes have a potential to train nearly 9 lakh people with SJSRY, SDI-MES and Agricultural training program accounting for a major share of this. Details of scheme/department wise training targets are presented in the table.

Ministry under Central Govt.	Training Scheme Details	Training Capacity Estimates(2012-17)
Building and Other Construction Workers' Welfare Cess	Skill Training for Construction Activity based on the availability of Construction Cess with the State Government, of which around 50% can be deployed in manpower training initiatives	4,000
Ministry of Agriculture	Skill Training for agri and allied sectors based on national targets of the sector and state's employment share in the agriculture and allied activities	230,000
Ministry of Labour	the state is expected to receive funds based on national targets set for Modular Employability Scheme under Skill Development Initiative	152,000

	Scheme, proportionate to its contribution to secondary sector activities	
Ministry of Communication and IT	Scheme wise national targets for software export industry including setting up of DOEACC Centres/RIELIT and upgradation of existing centres, Special Manpower Development Programme in the area of VLSI Design and related software (SMDP-II); Estimations are based on	188,000
Ministry of MSME	National MSME manpower development targets apportioned to state based on state's employment share in MSME segment	20,000
Ministry of HUPA	Physical training targets from an estimated allocation of INR 38.86 crores towards skill training component STEP-UP under Swarna Jayanthi Shahari Rozgar Yojana	47,000
Ministry of Textiles	Manpower training targets under Integrated Skill Development Scheme for Textiles and Apparel Sector including Jute and Handicrafts, apportioned based on state's contribution to textile sector	16,000
Ministry of Higher Education	Manpower training targets apportioned based on state's population in higher education age group	61,000
Ministry of Health and Family Welfare	Scheme training targets for ASHA Training, Personnel trained on IMNCI, Doctors trained on LSAS, Doctors trained on EMoC, ANMs/SNs/LHVs trained as SBA and Navjat Shishu Suraksha Karyakram (NSSK); apportioned based on state's share of national population	6,000
Ministry of Women and Child Development	Training targets under Women Empowerment Scheme apportioned based on female population in the state	15,000
Ministry of Road Transport and Highways	Training targets under "Refresher training to drivers" apportioned based on state's share in national highway length	18,000
Ministry of Social Justice and Empowerment	Training targets apportioned based on state's share of Scheduled Caste population	11,000
Ministry of Food Processing	Training targets apportioned based on state's share of contribution to food processing sector	500
Ministry of Chemicals and Fertilizers	Training targets apportioned based on state's share of employment in manufacturing segment	10,000

Ministry of Tourism	Estimated funding of INR 1.54 Cr towards flagship “Hunar se Rozgar” scheme, based on the state’s contribution to tourism industry	24,000
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Youth aspiration study indicates a clear mismatch between student aspiration and job opportunities available in the state. Sectors such as retail, construction, agri-allied activities, textile and transportation and logistics need to work on building a positive image, and providing the right working environment/perks, to attract talent.

Most of the industry personnel opined that quality issues in the state are two-fold - technical knowledge and soft skills/behavioral aspects - with prospective employees lacking in either, or both of them. Manufacturing industries are facing serious issues to employ appropriate manpower, as most skilled graduates prefer to work in services sector than in manufacturing.

Recommendations for stakeholders (Government, NSDC/SSC, Industry and Training Institutes) are aimed at developing a comprehensive approach for the skill development activities in Haryana.

Key recommendations for the Government include:

- Building systematic mechanisms to identify and assist potential school dropouts transition into vocational programs
- Setting up of Training Institutes for Faculty on PPP mode
- Encourage branding of Skill Development in the State
- Focus on Enhancing Skill Training Capacities in Districts With Low Penetration of Vocational Education

Key recommendations for the Industry/Industry Bodies include:

- Aligning CSR Goals (especially mandatory 2% CSR requirement) towards skilling, and play an active role in PPP initiatives. Share annual plan of recruitment with government and industry nodal agencies for skilling
- Support training institutes in development/delivery of programs
- Align recruitment policies to ensure hiring certified manpower from Govt/SSC accredited training institutions
- Invest in up-skilling of existing manpower and formulate formal HR policies and mechanisms to encourage employees to train in institutions

Key recommendations for NSDC include:

- Focus on high growth/ aspirational sectors where student acquisition is easier – IT ITeS, Auto Auto Components, Education & Training, Communication, Healthcare, BFSI, Retail, Construction
- Create capacities in districts with lower penetration of training infrastructure - Panipat, Faridabad, Sonipat, Gurgaon, Karnal, Bhiwani, Mewat, Palwal

Key recommendations for Training Institutes include:

- Participation in Training programs for priority sectors in key districts and based on key skills shortage identified in the sector
- Focus on Soft Skill and Career Awareness Training

District wise skill gap details and further detailed recommendations, are provided in the full report. We suggest that the recommendations of the study should be treated in by all the stakeholders, to realize the intended objective of a robust skill development ecosystem in Haryana.

