



N · S · D · C
National
Skill Development
Corporation

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



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This report was prepared in October 2013

1 Report Structure

The report is structured in the following manner

Part I includes Foreword, Acknowledgements, Study Objectives, Approach and Methodology, Study Limitations and Executive Summary.

Part II concentrates on the profile of Haryana from a socio-economic and human capital perspective and state level recommendation on skill development in Haryana

Part III consists of detailed analysis of all districts of Haryana from a socio-economic and human capital perspective and specific district level recommendations

Part IV consists of Appendix

2 Acknowledgement

We are grateful to the Government of Haryana and its various departments for their contribution towards the successful completion of the study. Our special thanks to Shri Dhanpat Singh, Shri Manish Jindal and Shri K K Kataria, who gave their time for focused and intense discussions.

We acknowledge with gratitude the support provided by the skill Training Institutions, NGOs, Industry Representatives and the youth of the state for their contribution towards the study

We would like to thank all industry partners, training partners for their active participation. The success of the study has been possible through their collaborative efforts.

In addition, we convey our gratitude to all those who have, in some way or other, contributed towards the successful completion of this study.

3 Study Objectives

National Skill Development Corporation (NSDC) has mandated KPMG Advisory Services Pvt Ltd to undertake the District level Skill Gap Study of the state of Haryana.

Study objectives would include a review of the following at an overall state and for all districts:

- Socio-economic profile – demography, economic profile of district by industry, state of education.
- Identify developmental opportunities keeping in mind factor endowments and stakeholder perspectives.
- Identify specific developmental initiatives/projects which have an impact on employment generation.
- Articulate the aspirations of the youth.
- Identify the current and future (2012- to 2022) skills and manpower requirements by industry and estimate the gap that exists.
- Study the existing VT infrastructure booth in the private sector and the government domain.
- Suggest suitable interventions/recommendations to address the skills gap.
- Recommendations have to be specific and actionable.
- Recommendations should also include specific initiatives that NSDC can take based on the mandate of the organization.
- Create an action plan with indicative timelines.

4 Approach and Methodology

KPMG has adopted a structured methodology to understand the skill ecosystem in Haryana, assess incremental manpower needs, and collate insights, to arrive at recommendations to address the manpower skill gaps in the districts of the state – which in turn aggregate to provide a picture of the manpower skill gaps in the entire state.

Dimensions to assess skill gaps

Skill gaps were assessed under two dimensions, each of which required a different approach

Need for manpower skill development in organized sector: This involved understanding skill gaps for formal/informal employment in both private and public enterprises among key manufacturing and services sectors in Haryana.

Need for manpower skill development for livelihood trades: This involved understanding skill requirements to foster local livelihoods in primary, unorganized secondary and unorganized tertiary sectors in the districts.

Salient features of the study

Socio-economic Profile: Detailed analysis of demographic and socio economic factors such as population, population growth trends, population density, urbanization, overall literacy, female literacy, healthcare indices, school education, higher/vocational education, drop out rates, domestic product, per capita income, labour force participation, worker participation rate, migration, primary, secondary & tertiary sector profiles at a state and district level.

Sectoral Focus: The study focused on analysing manpower skilling requirements from the perspective of state level high growth sectors along with localized sectors that have potential at the district level. Since over two thirds of the population of Haryana is involved in agriculture and agri-allied activities, the study also focused on manpower skilling requirements in these areas. Government policies of related sectors were studied, to understand thrust and growth targets for different sectors in the state, which would translate to priority sectors from the perspective of investment in manpower skilling as well.

Voice of Stakeholders: Detailed interactions were undertaken with various stakeholders, such as youth, private skill training providers, Government departments with skill training mandate and industry players - to understand their perspectives on manpower training and placement.

Manpower Supply-Demand Gap: Manpower supply-demand gap would be the difference between projected workforce participation and industrial manpower requirements, estimated as 2022.

Estimation of Manpower Supply: Based on estimations of population growth rate, working age group population and labour force participation, manpower supply in 2017 and 2022 has been estimated at district and state level.

Assessment of Existing Skill Training Capacity: Existing skill training capacity has been calculated based on sanctioned intake and enrolment in formal skill training institutions – government and private institutions offering Higher Education, Vocational Education (ITI/ ITC) and Diploma programs, at both the state and district levels along with Government sponsored training schemes. A dipstick study was undertaken at the district level to understand the institutional readiness of the skill training institutions.

Computation of Incremental Employment Potential: District level and state level data on categories of investment and employment were analyzed to arrive at the composition of economic activity, and their respective growth rate in each district. The proposed sectoral growth rate for the state of Haryana and its districts, have been estimated based on a triangulation of several factors such as past growth trend, state government’s policy impetus to sectors, ,inputs from industry personnel, presence of industrial infrastructure besides a state-comparable analysis.

Labour elasticity estimates have been used to arrive at sector wise employment growth projections at the district and state level. Based on industry inputs and published literature, incremental employment potential has been classified as highly skilled, skilled, semi skilled and un-skilled. Further, critical skills required for the focus sectors have been highlighted, keeping in view the adoption of technology in industries.

Detailed approach for the human resource requirement estimation is given below.

Secondary Sector		
Sub Sectors	Factors considered for estimation of district wise incremental manpower during 2012-22	Key stakeholders
Large Scale Industries	<ul style="list-style-type: none"> Estimated district wise/sector wise investment during 2012-22 in a district from sector wise projected investment estimated based on analysis of Investment targets from state industries & Commerce department Achievability of targets from interaction with nodal bodies for identified priority sectors, historical trends (IEM data) Estimated sector wise manpower intensity based on historical trends for investment to employment ratio (IEM data) and inputs from industry bodies. 	<ul style="list-style-type: none"> HSIIDC and nodal bodies/players in identified priority sectors covering SEZs, DMIC Region, Industrial clusters including Auto and auto components Chemicals Basic Metal Industries Electrical Tele & Electronics Glass, Ceramic & Cement Pharmaceuticals Food processing Textiles Machinery and equipment Non-metallic mineral based products Plastic and rubber products

		<ul style="list-style-type: none"> • Fabricated metal products
MSMEs(Medium-Small Scale Enterprises)	<ul style="list-style-type: none"> • Estimated sector wise MSME growth potential in the district from analysis of • Inputs from DIC on potential MSME sectors in the district • Historical trends in sector wise MSME growth from Entrepreneurship Memorandum-II (EM-II) • Qualitative inputs from MSME units. • Employment generation capacity in MSME units based on analysis of • EM-II data • Qualitative inputs from MSME units from identified priority clusters 	<ul style="list-style-type: none"> • District Industries Officer(DIC), Promoters of MSME units from key identified sectors including • Textile and textile articles • Paper Products • Metal Processing • Engineering Products • Chemical and Chemical Products • Ore/ Mineral Processing • Stainless Steel • Any other district specific units

Tertiary Sector

Sub Sectors	Factors considered for estimation of district wise incremental manpower during 2012-22	Key stakeholders
IT-ITES	<ul style="list-style-type: none"> • Estimated district wise IT-ITES output(IT-ITES Exports/Domestic) growth during 2012-22 based on analysis of • Output growth targets from Department of IT • Historic achievement of growth targets, • Interaction with IT-ITES industry bodies and key IT Players in Haryana • Estimated Manpower intensity in IT-ITES industry based • Inputs from IT-ITES industry bodies 	<ul style="list-style-type: none"> • Department of Information Technology • IT-ITES Industry bodies • Key IT-ITES Players in Haryana

	<ul style="list-style-type: none"> • Historic trends in output linked employment generation potential in IT-ITES Industry 	
Tourism	<ul style="list-style-type: none"> • Estimated growth in number of tourist visits to major tourist destinations in the district during 2012-22 based on analysis of • Growth targets from Department of Tourism • Historic tourist arrival trends, • Interactions with Tourism Industry Players. • Employment generation potential for tourist visits based on Interactions with regional tourism development bodies 	<ul style="list-style-type: none"> • Department of Tourism, Govt of Haryana
Hospitality	<ul style="list-style-type: none"> • District wise estimated growth in number of hotel rooms/restaurants during 2012-22, based on analysis of • Growth of hospitality sector in the district based on contribution to district GDDP • Inputs from State/Regional Hotel and Restaurant Associations • Key growth drivers for hospitality like trends in per capita income, life style patterns. • Employment potential estimates in hospitality industry 	<ul style="list-style-type: none"> • Hotel and Restaurant Associations
Healthcare	<ul style="list-style-type: none"> • District wise estimated growth of healthcare institutions during 2012-22, estimated based on analysis • Universal healthcare access targets(number of PHCs/CHCs/SHCs/ beds /healthcare professionals per 1000 population) • Achievability of targets from proposed healthcare sector allocation and historic spending pattern • Estimated manpower intensity in healthcare institutions based on requirement of healthcare professionals (Number of doctors/nurses/ 	<ul style="list-style-type: none"> • Department of healthcare along with nodal agencies for • Primary healthcare • Secondary healthcare • Tertiary healthcare • Private healthcare institutions in key districts.

	technician per number of hospital beds)	
Education	<ul style="list-style-type: none"> • Estimated district wise growth of education institutions during 2012-22 based on analysis • Universal and state level penetration targets for educational institutes (Schools/Higher Education Institutions /Vocational Education Institutions) • Achievability of targets from proposed fund allocation towards education • Manpower intensity in educational institutions, estimated based on human resource requirement in educational institutions(student to teacher ratio) 	<ul style="list-style-type: none"> • Department of School Education • Department of Secondary Education • Department of Higher Education • Department of Industrial Training and Vocational Education • Department of Technical Education
Logistics	<ul style="list-style-type: none"> • Projected contribution from logistics sector to the district economy based on analysis of • Historic growth trends in logistics sector to the district economy • Investment into logistics hubs (Railways/Roadways) • Interaction with key Logistics players • Employment potential in logistics industry based on analysis of • Current employment patterns in logistics industry • Inputs from key logistics players in Haryana 	
Transportation	<ul style="list-style-type: none"> • Estimated district wise growth in number of commercial vehicles during 2012-22 based on analysis of historic trends in commercial vehicle registrations in the district and interactions with transportation companies • Estimated requirement of manpower per vehicle based on Inputs from transportation companies 	<ul style="list-style-type: none"> • Department of Transportation • Transportation Companies

Retail	<ul style="list-style-type: none"> ● District wise estimated growth in organized/un-organized retail sector ● Historic sub sector GDDP growth trends ● Penetration of organized retail ● Key growth drivers like per capita income trends, spending patterns ● Employment generation potential estimates 	<ul style="list-style-type: none"> ● Key organized retail players in Haryana
Banking Sector	<ul style="list-style-type: none"> ● Estimated district wise growth in number of bank branches during 2012-22 based on analysis of ● Financial inclusion targets ● Historic growth trends in deposits/loans ● Manpower requirements in banking outlets 	
Financial Services	<ul style="list-style-type: none"> ● Estimated growth in Non Banking Financial Companies (NBFC) in the district ● Projected growth trends in bank deposits/loans ● Historic growth trends in NBFC operations ● Manpower intensity in NBFCs 	

Primary Sector		
Sub Sectors	Factors considered for estimation of district wise incremental manpower during 2012-22	Key Stakeholders
Agriculture	<ul style="list-style-type: none"> Based on analysis of district level crop pattern, irrigation pattern and extent of mechanization training potential in agriculture has been estimated 	<ul style="list-style-type: none"> Department of Agriculture, District Agricultural Officers, Agricultural promotion councils in major agro clusters of Haryana
Agriculture Allied Activities	<ul style="list-style-type: none"> District wise/category wise estimated growth in Agri-Allied output by 2022 based on analysis of Growth targets from Nodal Agencies for key Allied activities in Haryana Historic growth trends, funding allocation from nodal agencies Category wise employment potential in Agri-Allied activities 	<ul style="list-style-type: none"> Nodal Agencies for Individual Allied Sectors Horticultural Sericulture Department Fisheries Department

Assessment of Manpower Supply-Demand Gap: Supply-demand gap at the district and state level is estimated from the incremental manpower supply and projected employment growth during 2012-17 and 2017-22.

Research Methodology of the Study

The study was carried out through both primary and secondary research methodology, as well as qualitative and quantitative techniques.

Primary Research: Primary research inputs were collected through research techniques such as in-depth discussions, formal interviews, and Focus Group Discussions (FGD). Interview schedules, FGD Guidelines and points for field observations were developed in accordance to the study objectives. Consultation meetings were conducted with the following stakeholders to understand their perspectives on skill development.

Activity	Number of Interviews
Primary Interviews	250
FGDs across Haryana	30

Number of Participating Students	650
----------------------------------	-----

State Government Officials: Department of Technical Education, Directorate of Economics and Statistics, Department of Industries & Commerce, Department of SC & BC, Department of Tribal Development, Department of Rural Development, I, Small Scale Industries Department, Department of Healthcare, Department of Transportation, Department of Tourism, Department of School Education, Department of Higher Education.

District Administration Officials: District Collector, Officials from Department of Rural Development, District Planning Office, District Employment Office, District Labor Office, SC/ST Welfare Department Officials and Women and Child Development Department, Sarpanch/Patwari from a sample of villages.

Skill Training Providers: Government ITI Principals and Training Officers, Private ITC Principals and Training Officers, NGOs involved in Skill Training, Financial Services Institutions involved in Skill Training

Skill Training Beneficiaries: Students who are currently pursuing vocational education, and focus groups such as BPL women trained under government programs

Industry Representatives: HR and Operations personnel from key industries and members representing industry associations in the respective districts

Migrant Labor : Dipstick survey in tribal belts and non-tribal belts of Haryana

Focus Group Discussions (FGDs) were conducted with groups of 10-15 students in each district to understand their aspirations in terms of social life, career, expected economic standards of living and work related mobility - and the outcome was correlated to the level of industrialization of the district. The group discussions were carried out in a systematic manner with both skill training beneficiaries and skill training providers. The discussions were designed to be participatory in nature, and evoke inputs from all stakeholders, with due representation from various sections of trades and courses besides gender, both at trainer and trainee level.

Secondary Research: Secondary data were collected from a number of sources including central, state and district government/administration agencies, especially the Department of Economics and Statistics, Department of Industries - and program specific information from departments with a mandate in skill training, and from studies commissioned by funding agencies, NGOs etc.

5 Growth of Human Capital in Haryana

7.2.1 Administrative Profile

Haryana, a relatively new state came into existence on 1 November 1966. It was carved out of the Punjab state on the basis of language. The state is bordered by Punjab and Himachal on north and by Rajasthan to west and south. The river Yamuna defines its eastern border with Uttarakhand and Uttar Pradesh. Haryana also surrounds the country's capital Delhi on three sides, forming the northern, western and southern borders of Delhi. Consequently, a large area of south Haryana is included in the National Capital Region for purposes of planning for development.

Administratively, the state is divided into four divisions for administrative purposes: Ambala, Rohtak, Gurgaon and Hisar. Within these there are 21 districts, 47 sub-divisions, 67 tehsils, 45 sub-tehsils and 116 blocks. Haryana has a total of 81 cities and towns and 6,759 villages.

7.2.2 Social Profile

7.2.3 Demographics

Haryana with an area of 44,212¹ sq. km., accounting for 1.34 percent of India's geographical area, is one of the smaller states in India. Administratively, the state is divided into 4 divisions comprising 21 districts. The state has a population of 2.54 crores², which accounts for 2.09 percent³ of India's total population. The population growth rate of Haryana during the last decade (2001-2011) was 19.90 percent, which is a significant drop from the previous decade (1991- 2001) growth rate of 28.06 percent⁴.

The population density of Haryana is 573 persons per sq. km., which is much higher than the national average of 382 persons per sq. km⁵. The high population density in the state can be attributed to rapid industrialization in the state. Industrial hubs like Faridabad and Gurgaon register particularly high population densities of 2,442 and 1,204 persons per sq. km⁶.

District Wise Population Density in the State of Haryana

¹ <http://www.census2011.co.in/census/state/haryana.html>

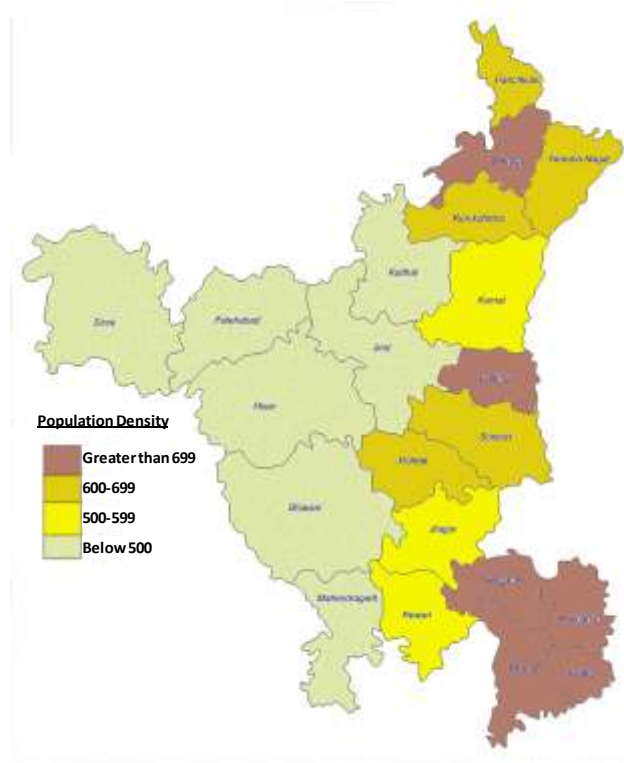
² <http://www.census2011.co.in/census/state/haryana.html>

³ <http://www.census2011.co.in/census/state/haryana.html>

⁴ <http://www.census2011.co.in/census/state/haryana.html>

⁵ <http://www.census2011.co.in/census/state/haryana.html>

⁶ <http://www.census2011.co.in/census/state/haryana.html>



Source: Census of India, 2011

The urban population of Haryana, as a fraction of the total population, is higher than the national average. According to the census 2011, an estimated 34.88 percent of Haryana’s population is urban in nature, compared to the national average of 27.82 percent⁷.

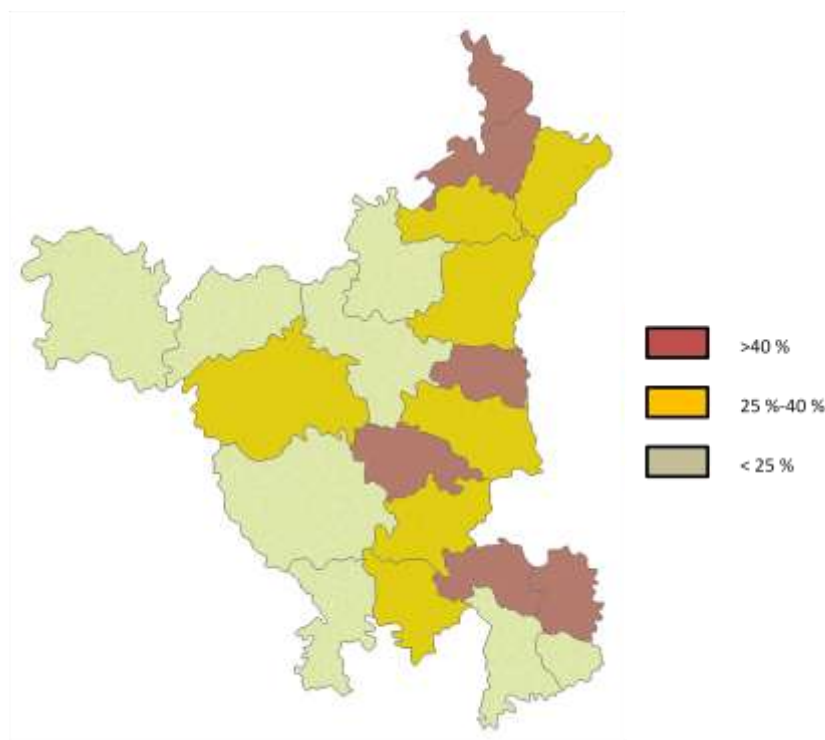
Demographic trend in the most populous districts of Haryana			
District	Population in Lakhs	Percentage of urban Population (%)	Population Growth Rate from 2001-11 (%)
Faridabad	18.09	79.51	32.54
Hisar	17.43	31.74	13.45
Bhiwani	16.34	19.66	14.70

Source: Census of India, 2011

District Wise Urbanization in the State of Haryana

⁷ <http://www.census2011.co.in/census/state/haryana.html>

Urbanisation



Source: Census of India, 2011

While the share of scheduled tribe category in the region is negligible, the schedule caste category makes up 19.35 percent of Haryana's total population, which is higher than the national average of 16.2 percent⁸. Thereby, it will be imperative to undertake necessitating targeted interventions catering to the group.

The highly industrialized districts like Faridabad and Gurgaon, have lower than average share of scheduled caste population. The literacy rate among scheduled caste population of the state at 55.45 percent is marginally higher than the national average of 54.69 percent⁹.

The ratio in Haryana has been a cause of concern for the state, ever since its formation in 1966. The number of females per thousand males for Haryana is only 879, compared to the national average of 940¹⁰. Predominantly rural districts like Mewat and Rewari, have poorer sex ratio. Even the highly developed and primarily urban districts like Faridabad and Gurgaon, have a dismal gender distribution.

The Government of Haryana has been taking special interest towards the development of women in the state. In the past few years schemes like LADLI, Gender Sensitization Program, and State Level Awards for improvement in Sex Ratio and Convention on Elimination of Discrimination against Women¹¹ have resulted in an improvement in the gender equity and sex ratio. Owing to these initiatives, there has been some improvement in sex ratio. The role of women in skill development and capacity building cannot be discounted in Haryana.

⁸ http://censusindia.gov.in/Tables_Published/A-Series/A-Series_links/t_00_005.aspx

⁹ <http://www.census2011.co.in/census/state/haryana.html>

¹⁰ <http://www.census2011.co.in/census/state/haryana.html>

¹¹ http://wcdhry.gov.in/new_schemes_f.htm

District Wise Population Density in the State of Haryana



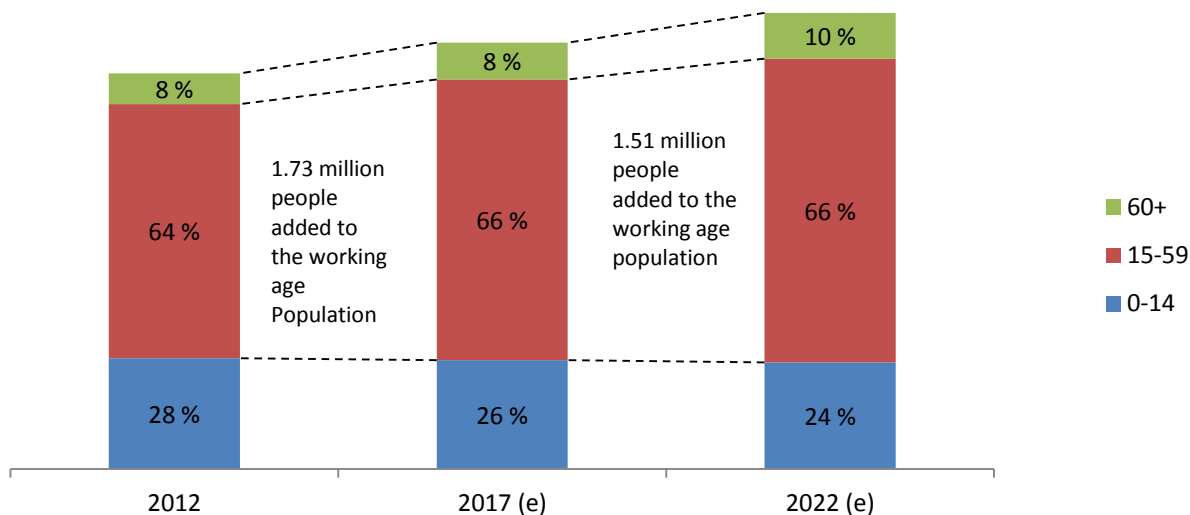
Source: Census of India, 2011

Population Growth in Haryana

In line with the trend as observed in most parts of Northern India, it is expected that Haryana will experience a huge bulge in its working age population between the years 2012-22. This makes the task of skilling even more important and challenging in order to reap benefits of the state's demographic dividend. It is estimated that between 2012 and 2017, Haryana will add 1.73 million people to its working age population and a further 1.51 million during the period 2017-2022¹².

Age Wise Haryana Demographics Projections

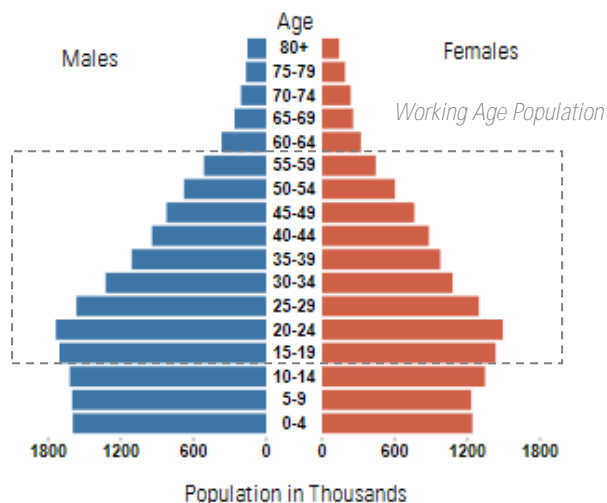
¹² KPMG Analysis, Population Projection for India and States 2001–2026 (Office of the Registrar General and Census Commissioner of India, 2006)



Source: KPMG Analysis

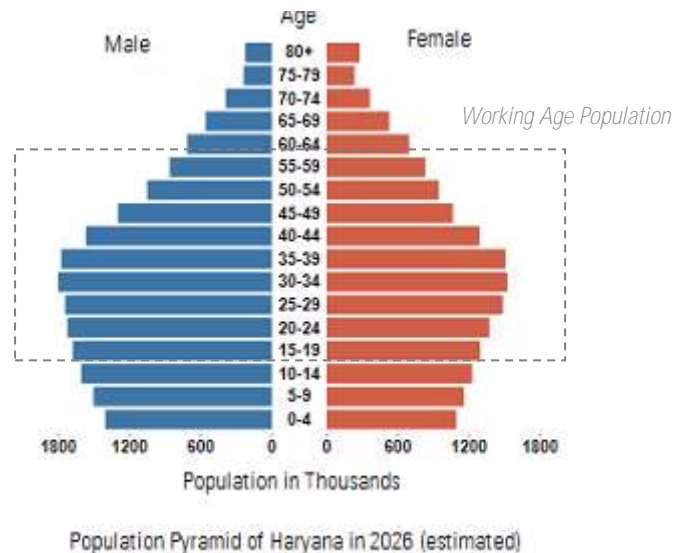
The availability of working age group population in a district is an indication of human resource potential in the district economy. Further, migration is expected to play a crucial role in determining the exact composition of the population, since Haryana is home to an ever increasing migrant population. Ensuring adequate skilling of the available workforce is necessary to increase their productivity and thus propel the state towards economic growth.

Population Pyramid of Haryana, 2011



Population Pyramid of Haryana in 2011

Estimated Population Pyramid of Haryana, 2026 (Estimated)



Source: KPMG Analysis, Population Projection for India and States 2001–2026 (Office of the Registrar General and Census Commissioner of India, New Delhi, 2006)

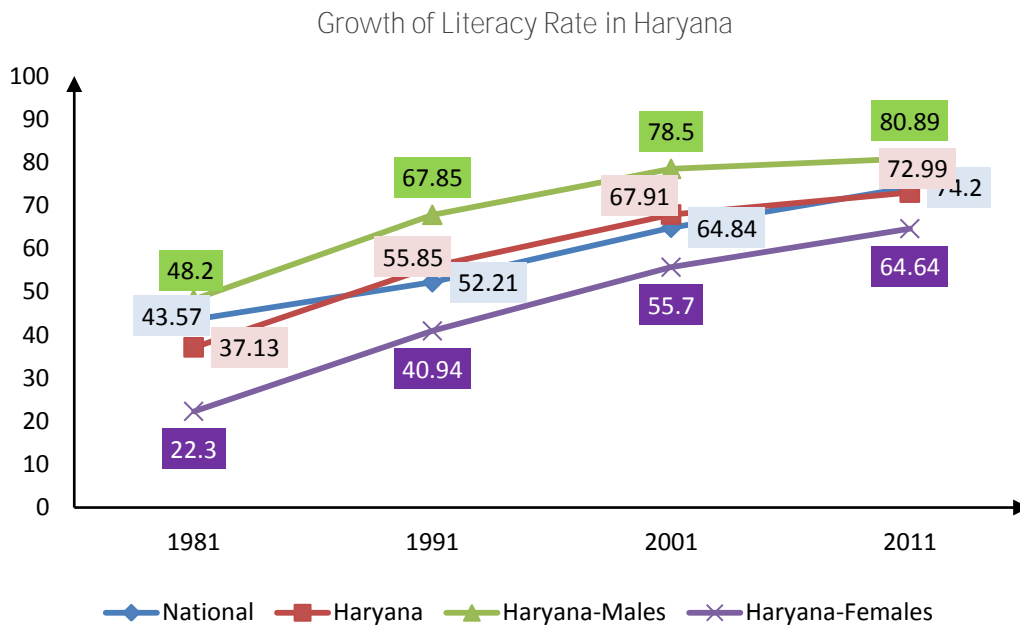
It is evident from the estimated population pyramid of Haryana that by the year 2026, there will be growth in both working age population as well as female population in the district. Therefore, skilling of these two sections of the population will be a critical factor in determining the economic benefits of the demographic dividend. Also, since the state is undergoing significant demographic changes, it is important to achieve inclusive growth across gender, age, castes and regions to sustain the growth momentum.

7.2.4 Literacy

According to the census 2011, the total literacy rate of Haryana is 75.55 percent¹³, which is higher than the national level rate of 74.02 percent¹⁴. There are various programs pertaining to the cause of improvement in literacy rate that are running in the state like Total Literacy Campaign, Sarva Shiksha Abhiyan and scholarships at various levels funded by the state government.

¹³ <http://www.census2011.co.in/census/state/haryana.html>

¹⁴ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)



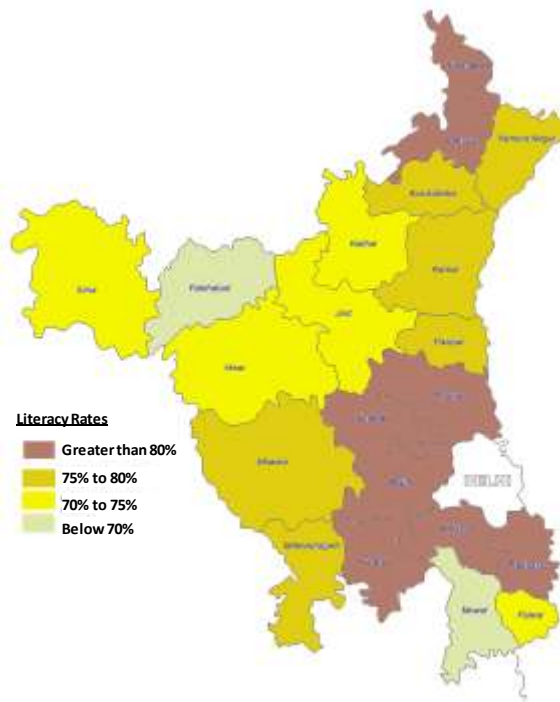
Source: Census of India, 2011

The female literacy in Haryana has grown at a faster rate than male literacy over the last three decades, but owing to small base it still lags behind the male literacy rate by a margin of more than 18 percent. Further, the drop-out rate amongst females remains high. The government needs to adopt a focused approach to bring the female literacy levels at par with the male literacy level and reduce the drop outs.

The literacy schemes in the state have had a huge impact on specific districts like Palwal, Mewat, Fatehabad and Kaithal. The growth in these districts can also be attributed to small base effect, as the literacy rates in these districts were quite low compared to the overall for the state in 2001.

In future, emphasis needs to be laid on the rural parts of Haryana, where the literacy rates are still much lower than state average. Strengthening of primary education infrastructure and monitoring of mass education schemes will be crucial in these pockets.

District Wise Literacy Rate in State of Haryana

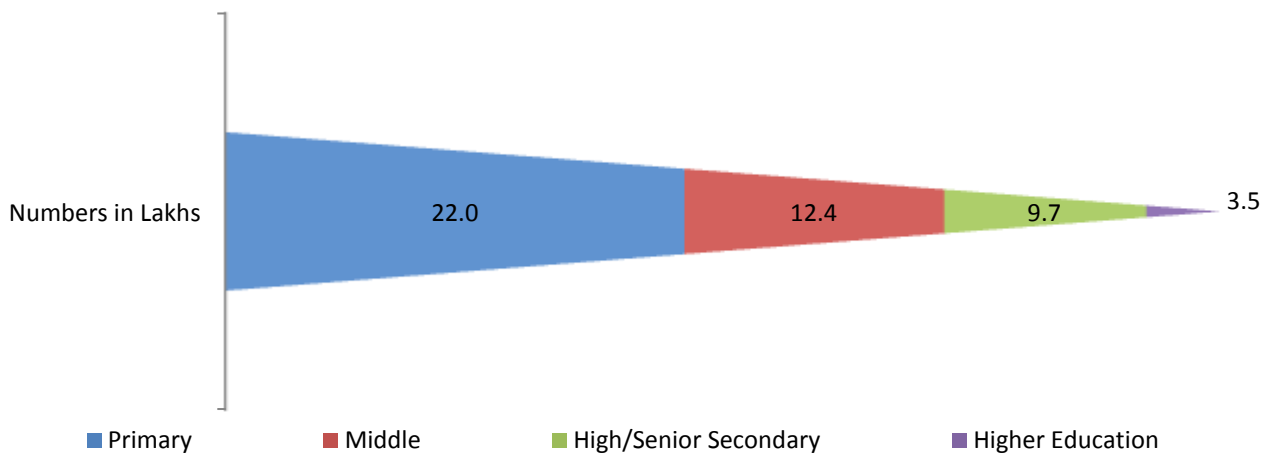


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Source: Census of India, 2011

Like with most other sectors in Haryana, there is high gender inequity in education too. Only 56.91 percent of the females have attained literacy, compared to 84.06 percent¹⁵ of the males. Further, the number of girls going for higher or professional education is still very small. Special efforts need to be made to increase the access of higher education for this section. There is also a significant gap between rural and urban literacy (71.42 percent and 83.14 percent respectively).

Progression of Education at various levels in Haryana



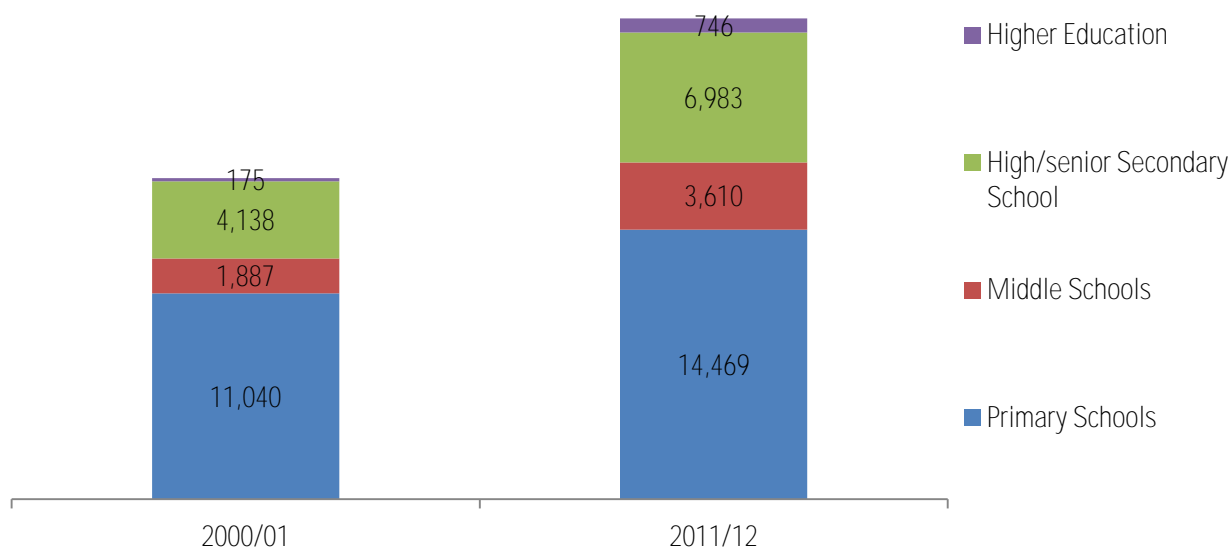
¹⁵ <http://www.census2011.co.in/census/state/haryana.html>

Source: Haryana Statistical Abstract 2011-12

In terms of senior secondary level, the state is now targeting to increase the Gross Enrolment Ratio from 60 percent to 65 percent by 2017.

While the State has progressed towards providing universal access to all regions and ensuring high enrolment, further efforts are required to increase retention of students across higher levels of education. The main reasons for the high dropout rate were limited access to higher educational institutes and poor quality of the colleges in Haryana. However, in the last decade the state government has taken major steps towards the proliferation of higher education resulting in an increase in both quality and quantity of the higher education in the state.

Growth of Educational Institutes in Haryana



Source: Haryana Statistical Abstract 2011-12

Post 2000, the state government has taken some major steps towards improving the higher educational infrastructure in the state. Between 2005 and 2013 the budget allocation for higher education has seen a threefold increase from INR 288 crores to INR 927¹⁶ crores. Many universities like Chaudhary Devi Lal University Sirsa, Bhagat Phool Singh Mahila Vishwavidyalaya Sonapat, BD Sharma University of Health Sciences Rohtak, Deenbandhu Chhotu Ram University of Science and Technology Murthal and YMCA University of Science and Technology Faridabad have started operations in the past decade. Central universities like Indian Institute of Management Rohtak and Central University of Haryana have also been set up in Haryana. Some of the recent initiatives by the government of Haryana also include the constituting of Haryana State Higher Education Council to expedite decision making process and maintain educational standards in the field of higher education. The government has also completed the first stage implementation of the project EDUSAT

¹⁶ <http://highereducationharyana.gov.in/>

(imparting education through satellite technology) and has established Rajiv Gandhi Educational City at Sonapat. This complex is expected to act as a hub of specialized higher education in the state.

7.2.5 Healthcare

The penetration of healthcare is low in Haryana; the state was at the ninth position in the country on Human Development Index, covering aspects of poverty, employment, health, education, rural infrastructure, development of the weaker sections of society, women and child development, and social security. The healthcare statistics of Haryana do not follow the rapid economic growth of the state.

It is clear from the table below that most of Haryana's vital healthcare indices are lower than other developed states of the country.

Performance of Haryana in comparison to other Indian states on healthcare indicators							
Health Indicators (as per SRS data)	2005	2009					
	Haryana	Haryana	AP	Bihar	Delhi	Kerala	All India
Infant Mortality Rate	60	51	49	52	33	12	50
Crude Birth Rate	24.3	22.7	18.3	28.5	18.1	14.7	22.5
Crude Death Rate	6.7	6.6	7.6	7.0	4.4	6.8	7.3
Total Fertility Rate	2.8	2.5	1.9	3.9	1.9	1.7	2.6

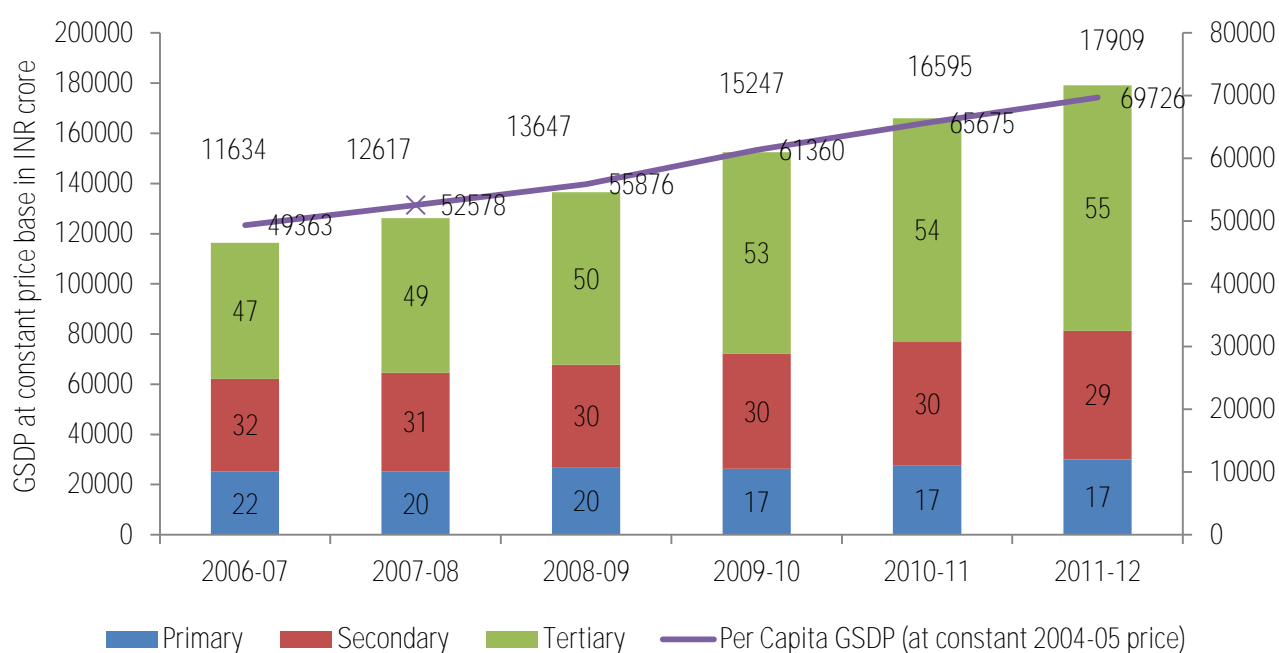
Source: Sample Registration System (SRS) Office of Registrar General, India

7.3 State Economy

The state economy's GDP registered a growth rate of 9.01 percent¹⁷ CAGR between 2006 and 2012, which is higher than national GDP growth of 7.8 percent during the same period.

There is gradual shift in the state's economy from primary to secondary and tertiary sectors. In 2011-12, the primary sector contributed to a little over one-fifth of the total GSDP, while contribution from the secondary sector had remained a little less than 30 percent¹⁸ of the total economy. Tertiary sector has shown the maximum growth amongst the segments with a contribution of 50.60 percent in 2011-12.

Haryana Economic Performance



Source: Haryana Economic Survey

The state per capita income (estimated at constant prices 2004-05 base) has increased from INR 44,423 to INR 62,927 between 2006-07 and 2011-12¹⁹. The per capita income of Haryana is much higher than the national average of INR 38,005 during 2011-12. Further, growth of per capita income at current prices has been higher for Haryana, as compared to All India. The per capita has grown at the rate of 17.00 % and 12.04 % per annum for Haryana and All India level respectively during 1999-2000 to 2009-10.

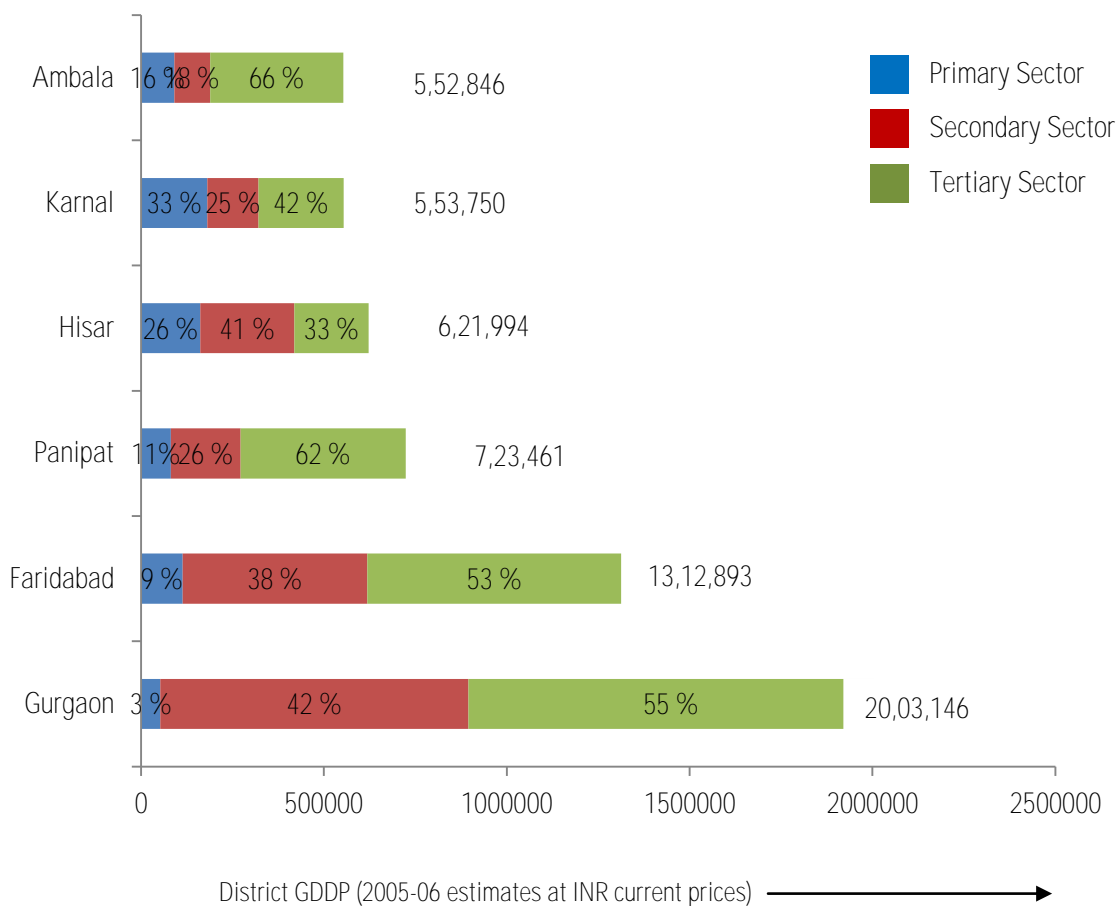
¹⁷ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

¹⁸ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

¹⁹ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

In terms of contribution of individual districts to the overall state economy, urban districts of Gurgaon, Faridabad and Panipat predominantly dominated by services sector in Haryana. Six key districts in Haryana alone contribute to about 55% of the total state economy.

Economic performance of key districts in Haryana (2005-06 estimates at current prices)



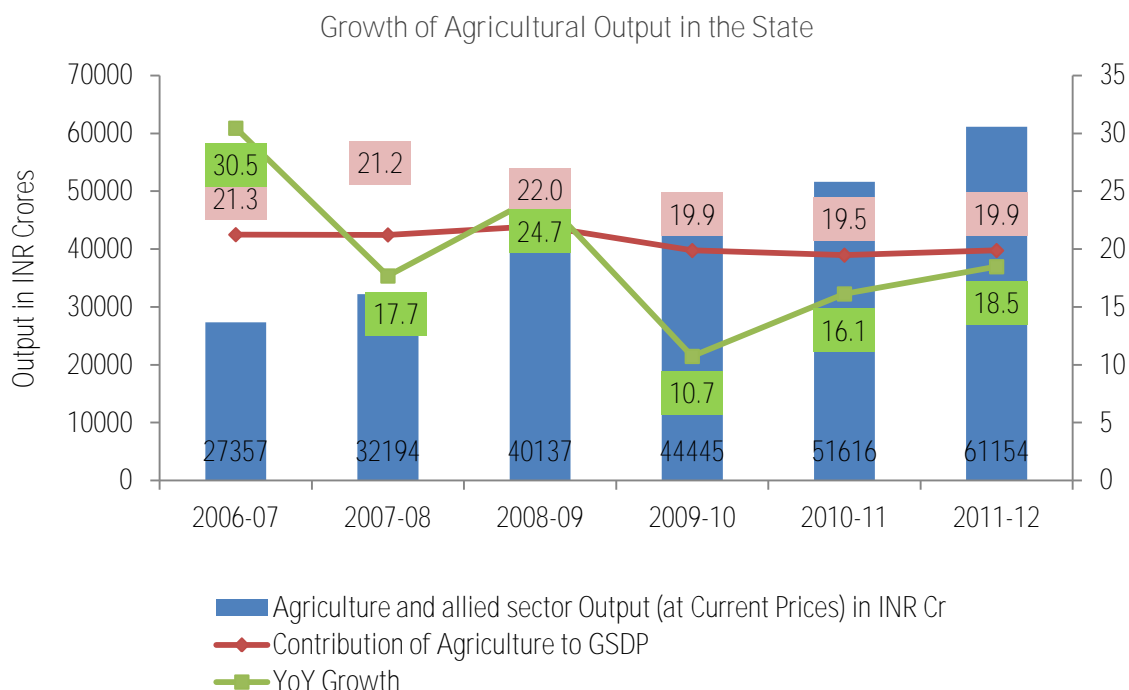
Source: Planning Commission, State wise District Domestic Product Report

It is interesting to note that the districts having highest GDP are also the ones that have the low contribution of the primary sector to their GDPs.

7.3.1 Agriculture

Over the past two decades Haryana's industry has grown rapidly, but agriculture remains one of the most important pillars of the economy. Agriculture is the highest employer in the state with 51.29 percent²⁰ of the working population being employed in this sector.

Between 2006-07 and 2011-12, agriculture's contribution to the GSDP has come down from 21.89 percent to 19.88 percent (at current prices). The primary sector itself is growing at a lesser pace than the secondary and the tertiary sector. The sector has been growing at a rate of 5.04 percent²¹ (at constant prices) over the period of 2004-05 to 2011-12.



Source: Haryana Statistical Abstract 2011-12.

Haryana has an average annual rainfall of 354.5 mm²² which is lower than the country average of 600 mm. Therefore, the dependence on irrigation is higher amongst farmers in Haryana, compared to their counter parts in other states of the country. The use of irrigation has thus become imperative in the state.

More than 82 percent of the total cultivable land is under irrigation, the remaining land tract is dependent on rainfall for cultivation and hence prone to vagaries of nature. Of the net irrigated area, almost all of the irrigation is received from canals and tube wells, indicating better networking of water bodies. This high level of irrigation is one of the major advantages that farmers in Haryana have, when compared to those in states like Uttar Pradesh, Madhya Pradesh and Bihar.

As of 2010-11, land holdings of size less than one hectare constituted over 48.1 percent²³ of the total land holdings, covering an 9.88 percent²⁴ of the land area. However, when compared to average land holding pattern for the country,

²⁰ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

²¹ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

²² <http://agriharyana.nic.in/>

²³ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

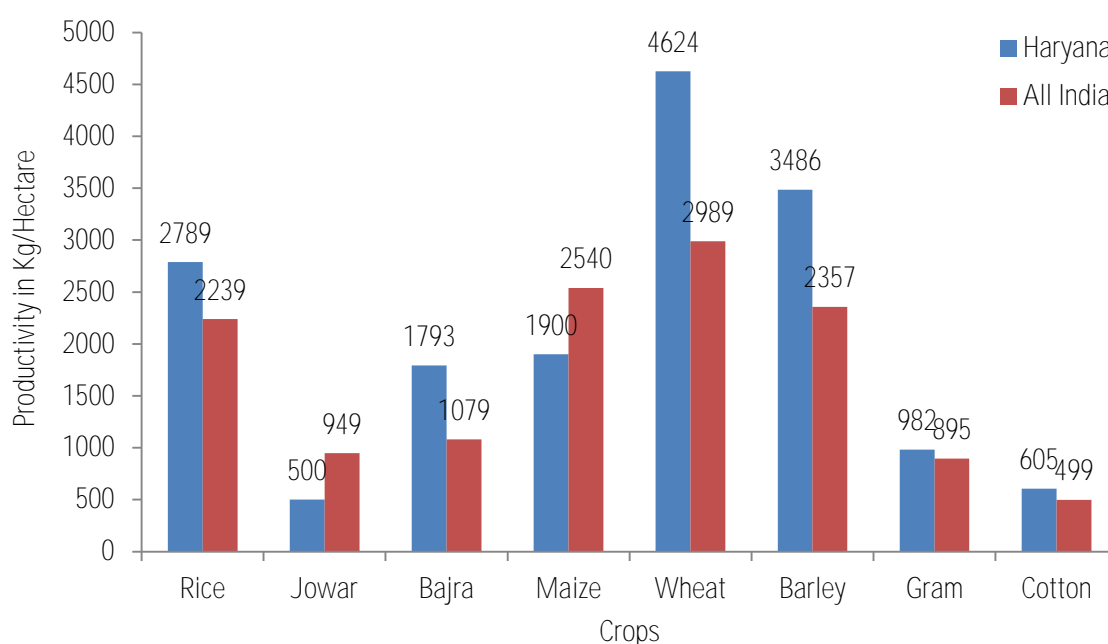
²⁴ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

Haryana fares remarkably well. The average land holding for Haryana at 2.25 hectare²⁵ is larger than most states, with the exception of a few north eastern states and Rajasthan.

The state has traditionally been one of the highest users of fertilizers. Between 2000-01 and 2011-12, the usage levels increased from 255 kg per ha to 391 kg per ha²⁶, which is considerably higher than national average of 128 kg per ha.

Due to the above factors, the state is much ahead of the national average in the productivity of certain key agro produces such as rice, wheat, maize and mustard. Rice and wheat occupy maximum sown area in the kharif and rabi seasons respectively. The yield of sugarcane is however low in Haryana.

Comparison of Agricultural Productivity



Source: Haryana Statistical Abstract 2011-12

Despite decreasing relative contribution to the overall economy, the employment and occupational dependence of the state on agriculture is very high. Of the total work force in the state, around 51 percent are dependent on agriculture and allied activities. However, this is lower than the national average of 58 percent employment dependence on agriculture. Further, analysis of the Economic Census of Haryana indicates that out of the 8.34 lakh establishments in 2005, around 91% establishments were non-agriculture based. As compared to the Economic Census of 1998, agricultural establishments have recorded positive growth, indicating increasing interest in undertaking commercial/trading based activities based on agriculture.

The analysis of the macro-economic scenario from an agriculture sector perspective indicates a need to diversify the skill set of the current population involved in the primary sector, to ensure a sustained livelihood mechanism. Agri-allied sectors such as horticulture, dairy farming, and fisheries, complement traditional agricultural activity, in increasing the

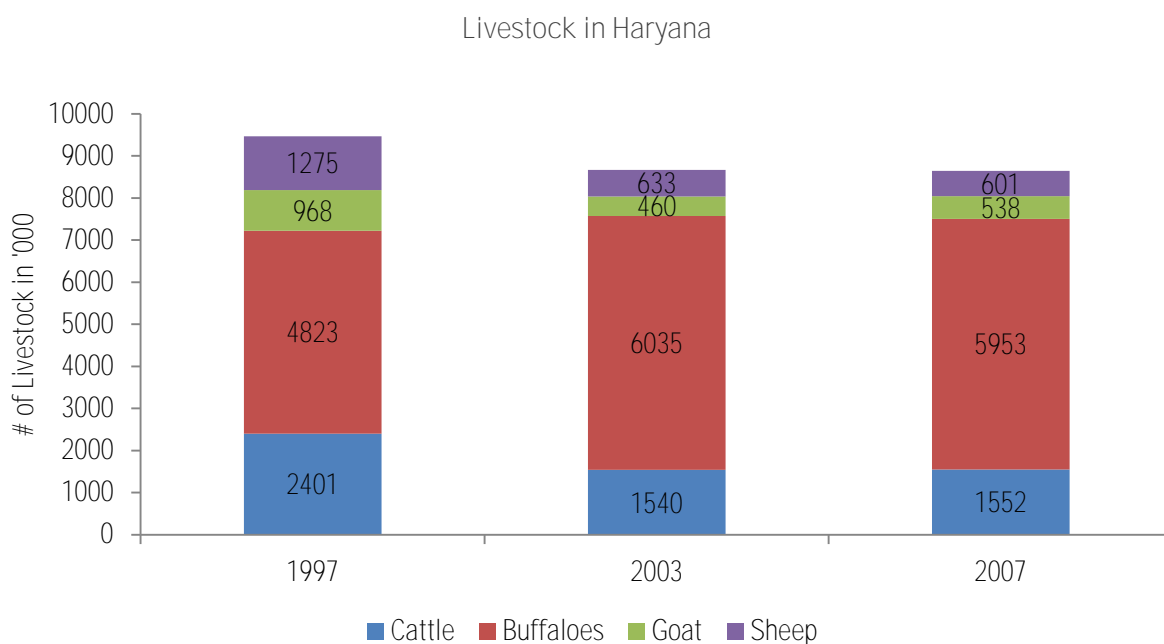
²⁵[http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

²⁶[http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

earning potential of those involved in agriculture. Therefore, the existing workforce in agriculture needs to be trained for such allied activities.

Animal husbandry and livestock is an integral part of agri allied sector. Animal husbandry, especially cattle and goats and sheep, poultry and piggery have been providing rural livelihood opportunities. Cattle are also one of the main sources of draught power in agricultural operation and rural transportation in many parts of the state.

The number of cattle has grown tremendously in the state over the past decade. There is also a National Dairy Research Institute, Karnal and Central Institute present in the state for Research on Buffaloes to catalyze the development of indigenous and high yielding strains of cattle. The Murrah water Buffalo and Haryana cow is famous the world over for its milk. Haryana is one of the largest producers of milk in the country with 6.66 million metric tonnes milk production in 2011-12. Egg production in the state stood at 411 million as of 2011-12. Other animal products also registered impressive growth in Haryana. Wool production which had seen a decline in the early part of the last decade also saw an increase from 1.2 million kg to 1.3 million kg.



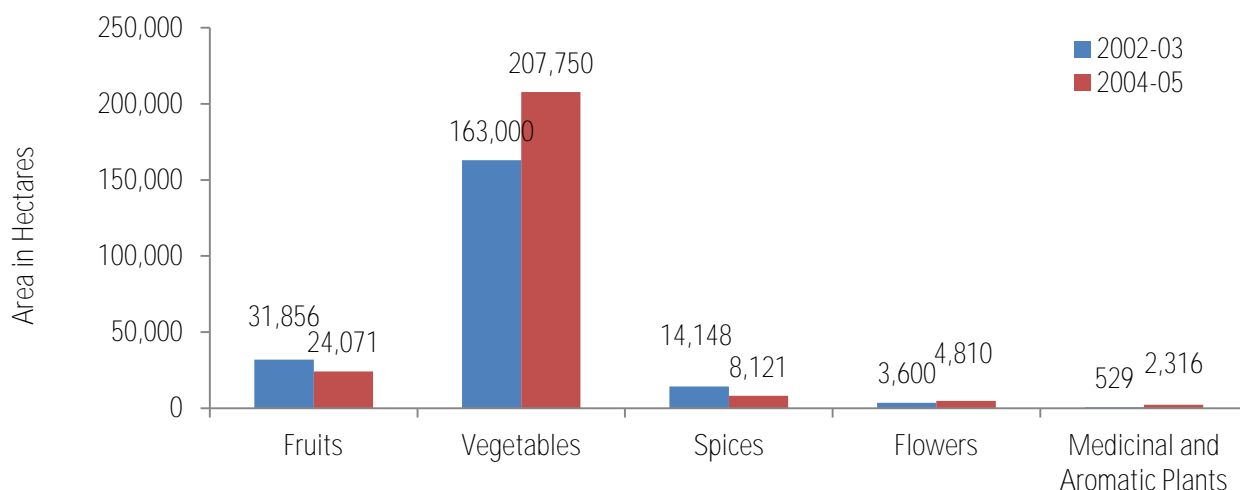
Source: Livestock Census of 1997, 2003 and 2007

Fishery is an agri allied activity which supplements livelihood income, besides serving as food and nutritional support for the family. Inland fish production in the state is necessitated due to the land-locked situation of Haryana. However, there is still vast potential to be tapped. Haryana ranks second in fish productivity among all states in India. Haryana had only 58 hectare of ponds for fish cultivation in 1966, but this figure has seen phenomenal growth over the years and currently Haryana has more than 18000 hectare of pond area dedicated to fish cultivation. The Haryana state Agriculture Policy Draft Document identifies fisheries as one of the important growth drivers of agri allied activities in the state. Production of fish increased from 600 metric tonnes at the time of the formation of the state to 106000 metric tonnes in 2011-12.

Horticulture is one of the emerging sectors in the state, with area under horticultural crops like fruits, vegetables and spices, showing significant increase in recent past. Around 3.6 lakh hectares of land is under horticulture crops in Haryana. Of the total land area under horticulture, vegetables occupy 72 percent, spice crops occupy 8.85 percent and fruits occupy 19.63 percent. Between 2001-02 and 2004-05, production of horticulture crops grew at a CAGR of 9.05

percent²⁷. Increasing income levels of farmers, providing additional employment due to labour intensive nature, and suitability for cultivation even on small and marginal operational holdings are the primary reasons for the thrust on the horticulture sector in the state. Horticulture is also supported by diverse agro climatic zones in the state. Export of flowers to the European Union and Mangoes to the Far East present attractive growth opportunity for horticulture in the state. Haryana is also the largest Mushroom producing state in the country.

Area under Horticulture in Haryana



Source: Horticulture Department, Haryana

The government of Haryana is also investing in the development of a Global Horticulture Market in Ganaur and Sonipat. The planned market will have an investment of INR 1250 crore and will yield returns to the tune of INR 850 crore annually, once it is fully operational. The government has allocated 493 acre of land for the purpose and is also taking assistance from French experts.

Horticulture Clusters in Haryana	
Crop	Districts
Mango Cluster	Panchkula, Ambala and Yamuna Nagar
Sapota Cluster	Panchkula, Ambala and Yamuna Nagar
Citrus Cluster	Sirsa, Fatehabad and Hisar
Guava Cluster	Karnal, Panipat, Sonipat, Rohtak, Faridabad, Mewat, Gurgaon, Jhajjar
Ber Cluster	Sonipat, Rohtak, Faridabad, Mewat, Gurgaon, Jhajjar
Floriculture Cluster	Karnal, Panipat, Sonipat, Rohtak, Faridabad, Mewat, Gurgaon, Jhajjar

²⁷ http://nhm.nic.in/actionplan/actionplan_haryana.pdf

Aromatic Plants cluster	Panchkula, Ambala, Yamunanagar, Karnal, Gurgaon, Jhajjar, Faridabad, Mewat
Chilly cluster	Sirsa, Fatehabad, Hisar, Rohtak, Sonipat, Panipat, Karnal, Jhajjar, Gurgaon, Mewat, Faridabad
Garlic cluster	Sirsa, Fatehabad, Hisar, Rohtak, Panchkula, Ambala, Yamunanagar, Karnal

Source: National Horticulture Mission-Action Plan for Haryana

The agriculture and allied activities output in the state has regional variations, depending on the land area under cultivation, nature of soil irrigation facilities and scope for allied activities in the districts. A comprehensive view of information related to crops and allied activities for districts contributing significantly to overall state Agri and Allied sector output is presented in the table below.

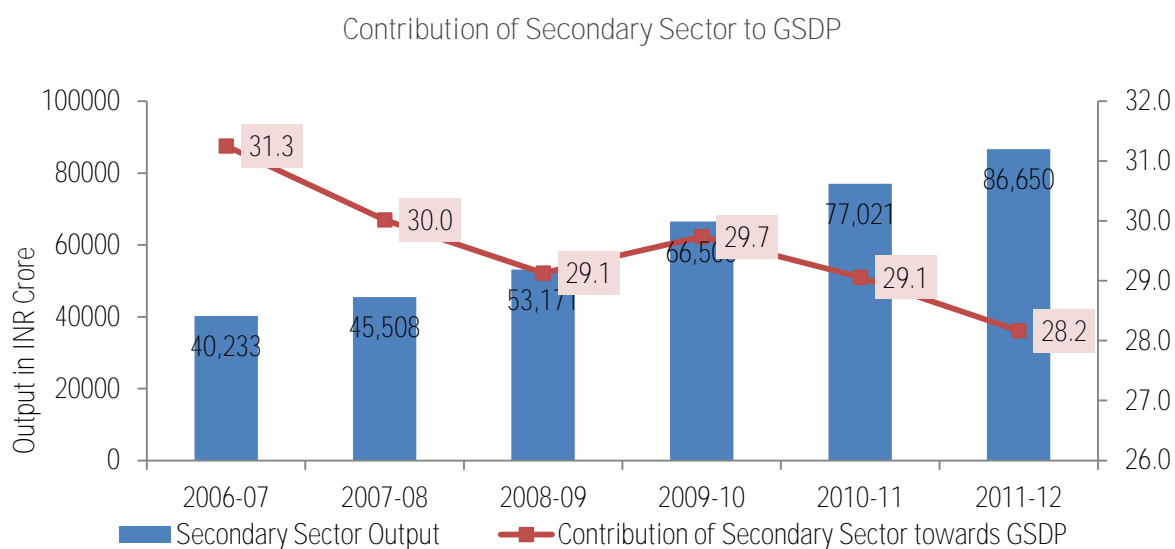
Key Activities in Districts with High Agri and Allied Sector Output			
Districts	District contribution to overall state primary sector output	Major Crops	Agri- Allied Activities
Sirsa	9.23 %	Cotton, Wheat, Paddy, Bajra, Oilseed, Guar	Animal Husbandry, Forestry, Fishery, Bee Keeping, Vermi Composting, Mushroom
Karnal	8.31 %	Wheat, Paddy, Sugarcane, Jowar, Maize	Animal Husbandry, Horticulture, Bee Keeping and Mushroom Cultivation
Bhiwani	7.51 %	Bajra, Guar, Cotton, Mustard, Wheat, Gram, Barley	Horticulture, Dairy Development, Bee Keeping, Mushroom and Vermi Composting, Fishery, Social Forestry
Hisar	7.42 %	Wheat, Cotton, Bajra, Rapeseed and Mustard	Animal Husbandry, Horticulture, Fishery
Jind	7.27 %	Rice, Wheat, Bajra, Cotton and Sugarcane	Horticulture, Animal Husbandry, Fishery,
Kaithal	7.16 %	Paddy, Wheat, Bajra, Cotton, Sugarcane	Horticulture, Animal Husbandry,

Source: Central Research Institute for Dryland Agriculture

Social forestry, beekeeping and mushroom cultivation are some other agri allied activities that have gained popularity over the past decade. According to Haryana Agro Industries Corporation Limited, 509 beekeepers were trained in 2006-07 and 5,940 bee colonies were supplied to them. The Haryana Agro Industries Corporation Limited has also initiated a mushroom Research, Development and Training Project at Sonipat for effective implementation of modern farming techniques in mushroom cultivation.

7.3.2 Secondary Sector

Haryana is not heavily endowed with rich mineral deposits and other natural resources, as compared to other states of the country. However, there exists several other growth opportunities in the manufacturing sector. The secondary sector in the state grew at a compounded growth rate of 18.48 percent²⁸ between 2006-07 and 2011-12, though its contribution to state GDP remained almost constant at around 29 percent²⁹ during the same period.



Source: Department of Economic and Statistical Analysis, Haryana

In order to achieve the state's economic agenda of attracting industrial investment as well as the social agenda of generating employment opportunities, the state government is undertaking several initiatives towards these objectives.

The state's Industrial and Investment Policy 2010³⁰, has several features that promote investment in the state. The Industrial Policy aims to promote inclusive economic growth and private sector investment through PPP mode, it also focuses on skill development for increasing the employability of youth in Haryana. The Industrial policy also lists out a comprehensive strategy to meet its economic goals; it advocates the setting up of a grievance redressal mechanism for the industry, it also lays special focus on the development of the SME through cluster development. A Foreign Investment and NRI Cell have also been formed in the state under the aegis of the Haryana State Industrial and Infrastructure Development Corporation LTD. to facilitate investment through Non Resident Indians.

²⁸ <http://www.nabard.org/departments/pdf/status%20of%20microfinance%202011-12%20full%20book2.pdf>

²⁹ <http://www.nabard.org/departments/pdf/status%20of%20microfinance%202011-12%20full%20book2.pdf>

³⁰ <http://haryana.gov.in/misc/industry-policy-2011.pdf>

As of 2010, the state had a total investment (including domestic and foreign investments) of INR 4,27,000 crores compared to INR 3,54,845 crores for 2009³¹.

The state has established an Industrial Growth Center in Saha near Ambala with an area of 40 acres³². The state also has four Industrial Model Townships (3 developed and one in the pipeline), 23 Industrial Estates and 7 specialized parks to coordinate and promote industrial development³³. These specialized areas target growth sectors like auto motive industries, steel processing, textile, food processing, heavy engineering, agro products etc. Haryana has 1,364 large industrial units and another 83,000 MSME units.

The state government has signed Industrial Entrepreneur Memoranda worth INR 76,629 crores, out of which projects worth more than INR 40,000 crores have already been implemented, generating employment for more than 5 lakh people.

Haryana's exports have also seen phenomenal rise over the last few years. The state exports reached to INR 48,530 crores³⁴ in the year 2010-11 which is up from INR 19,168 crores in the year 2004-05. The key exports from the state includes steel products, IT services, textiles, gum, electrical goods, shoes and dairy product.

For the growth of the SME sector, the state has envisioned setting up Centres for Competitiveness in its Industrial Policy of 2005. These centers will assist small industry in acquiring latest technology; it will also perform advisory services in the agri and biotechnology sector. The state has also taken up programs like patent registration, cluster development, branding, market development and special incentives to SSIs in the form of Mukhyamantri Gramin Rozgar Yojana.

The state owned Haryana power Generation Corporation Limited has 5300.50 MW of installed generation capacity, comprising of state level thermal and hydro generation projects, apart from drawing from the national grid.

As of 2010-11, the state had 1,479 kilometers of national highways and 2,495 kilometers³⁵ of state highways with total road length of 23,426 kms. However, the state's roadway average of 52.14 km per 100 sq km, which is much lesser than the national average of 83 km per 100 sq km³⁸, indicates overall poor road connectivity. However, main cities as well as industrial districts are well connected through railway services. Overall, the state is well connected in terms of railways, it has a total of 1,540 km of railways in the year 2010-11 which is 2.39 % of all rail routes in the country (this number is above the average considering the fact that Haryana occupies only 1.37 percent of India's area and accounts for only 2 percent of India's population)³⁶.

Due to several favorable government initiatives, there has been perceivable growth in the secondary sector.

Industrial growth, in terms of investment, has been predominantly propelled by large-medium scale industries, whereas small scale industries have played a significant role in contributing to employment generation in the state.

Post the Industrial Policy of 2005, the state has attracted investment of more than INR 61,000 crores, with another INR 97,000 crores in the pipeline. The State Government has also approved 67 Special Economic Zones.

³¹ <http://newindianexpress.com/nation/Major-industrial-conglomerates-making-a-beeline-for-Haryana/2013/05/18/article1594948.ece>

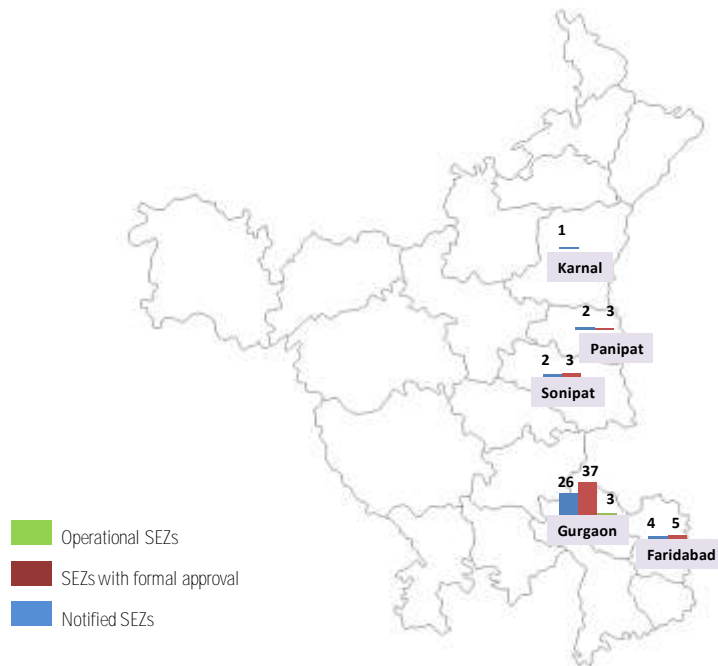
³² <http://www.hsiidc.org/>

³³ <http://www.hsiidc.org/>

³⁴ <http://www.indianexpress.com/news/haryana-exports-touch-rs-48530-cr-mark/1038018/>

³⁵ http://haryana.gov.in/business/economic_infrastructure.asp

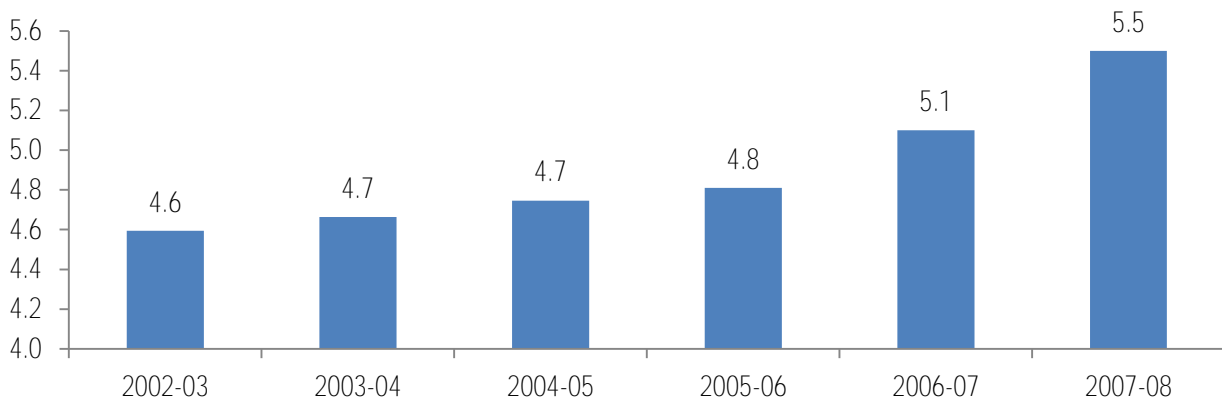
³⁶ http://indianrailways.gov.in/railwayboard/uploads/directorate/stat_econ/yearbook10-11/Track_bridges.pdf



Source: SEZ India

While the state is steady on its path of industrialization, the industrialization is still restricted to certain pockets in the region - with many other areas being untouched by any significant industrial activity. Given the declining attractiveness of agriculture from a sustainable employment perspective, headway needs to be made by increasing investment in industrial segments to generate manifold employment opportunities; else it would be difficult to accommodate workforce displacement from primary sector.

Small Scale Industries Employment in Haryana (in Lakhs)



Source: Micro, Small and Medium Enterprises Development Institute, Karnal

Agro-products, chemicals and chemical products, consumer goods, drugs and pharmaceuticals, mines and minerals, manufacturing and textiles sectors are some of the key sectors that are attracting major investments into Haryana.

Food processing is one of the key sectors in the state with agri and agri-allied activities contributing to over 20 percent³⁷ to the GSDP. Covering four crop zones and two agro climatic zones³⁸, the state has a diversified farming environment with total cropped area of 6.5 mn³⁹ hectares.

Haryana is one of the few states that have huge marketable surplus of wheat and rice. Haryana contributes to 65 percent and 45 percent⁴⁰ respectively of total wheat and rice in the central pool. This surplus is marketed by Haryana State Agricultural Marketing Board. Haryana also has a surplus of other crops, which can be utilized by the food processing industries in the state. Food parks have been established in Rai and Saha regions. Besides these, many other industrial estates that promote agro food products are being set up at places like Kundli, Karnal, Sirsa, Tohana and Jind. These provide tremendous opportunity for the growth of the sector in the coming decade, especially in the following food processing categories

Food Processing Opportunities in the State	
Produce	Processed Food and Other Opportunities
Cereals and Pulses	Maize - Dairy feed, Cornflakes, Starch, Oil Wheat - Packaged Atta, Maida, Porridge (Dalia), Suji, Pasta Soyabean - Soya Milk, Soya Protein, Extruded foods, Soya flour Rice - Rice Bran, Puffed Rice, Flaked Rice, Bran Oil
Vegetables	Potato - Flour, Chips Onion - Dehydrated Flakes Green Peas - Dehydrated Peas, Frozen Peas Tomato - Puree, Ketchup, Sauces, Concentrate
Spices	Chilly, Ginger, Garlic, Coriander - Powder, Oleoresin, Paste
Fruits	Mango, Orange – Juice, Pickles, Jams, Squash
Meat	Meat and Meat products, Modernization of abattoirs
Fisheries	Fish wafers, Sausages, Soup, Cutlets, Fish feed, Fish balls

Source: Central Research Institute for Dryland Agriculture

³⁷ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

³⁸ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

³⁹ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

⁴⁰ Haryana State Agricultural Marketing Board

As of now Haryana has no Agri Export Zones, but the government of Haryana is in the process of identifying such areas which may be developed into food parks and agri export zones.

Minerals Mining and Processing: Haryana is not naturally well endowed in terms of minerals, consequently the mining and quarrying sector is not a major contributor to the state GSDP. Of the few minerals that are found in the state, sulphur and quartz are prominent. Prohibition of Mining near the National Capital Region and on the Aravalis has negatively impacted the mining industry in the state.

Cement: Haryana produces 1.97 million tonnes⁴¹ of cement each year; Panipat, Rewari, Mahendragarh and Yamuna Nagar are the key cement producing districts in the state. Ambuja Cements Limited has recently put up a cement plant in Panipat with an investment of more than USD 40 mn⁴². Haryana also has industry associations in the form of national Council for Cement and Building Materials. Total installed capacity at two grinding units and one cement plant in Haryana is 2.97 million tonnes⁴³.

Auto-Auto Components: Haryana is one of the largest hubs for the auto industry in India. Haryana produced 11.74 lakh automobiles and 57.29 lakh two wheelers in the year 2011-12⁴⁴. Haryana also has a total of 38⁴⁵ working factories dedicated to sale, maintenance and repair of two wheelers, with highest concentration in Bhiwani, Faridabad and Rewari. Maruti Suzuki India's largest passenger vehicle manufacturer has two factories in Haryana one each at Manesar and Gurgaon. Hero Motocorp India's largest two wheeler manufacturer is present at four locations, one each in Manesar and Faridabad and two in Gurgaon. Haryana's Industrial Policy identifies the auto and auto components sector as one of the strengths of Haryana's economy, the government is encouraging the development of this industry through presence in the Industrial Model Townships. Tractor major Escorts also has a factory in Haryana.

Manufacturing of Engineering/Electrical Goods: Key manufacturing regions in the state like Faridabad, Gurgaon, Hisar and Rewari have traditionally been a hub for engineering & electronic component manufacturing units. Large public sector undertakings are also present in the state. State's thrust to provide fiscal and non fiscal incentives to the sector has fuelled growth in other regions like Sonapat. There are more than 350 working factories that manufacture electrical goods in Haryana⁴⁶.

Textiles: Textiles is one of the key sectors in Haryana, with the state being the fifth largest cotton producing state in India. Haryana produced 57 lakhs⁴⁷ bales of cotton in 2011-12, which is equivalent to 21 % of total cotton produced in country. The state has a rich tradition of weaving, and has more than 71 mills⁴⁸ generating exports worth over USD 325 million per annum. There are over 45,000 power looms in the state. Several leading players such as Aditya Birla Grasim, Mafatlal, Vardhman Group, SKumars, etc are present in the state. However, the textile industry has shown a marked decline in the past three years. The state is promoting the sector through development of textile infrastructure such as the following:

- An International Trade and Convention centre would be set up at Panipat to promote handloom products. These Trade Centres would have global market information data and design centre for handloom and garments industry.

⁴¹<http://www.cmainsdia.org/portal/index/index.aspx>

⁴² <http://www.cmainsdia.org/portal/index/index.aspx>

⁴³ <http://www.cmainsdia.org/portal/index/index.apx>

⁴⁴ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

⁴⁵ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

⁴⁶ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

⁴⁷ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

⁴⁸ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

- Floor Area Ratio up to 250% is permissible for apparel units in the new industrial estates and expansion phases of the existing industrial estates.
- Cluster based approach is being increasingly recognized as a sustainable, cost effective and inclusive strategy to ensure manufacturing competitiveness of the local industry. For e.g. Textile Park at Barhi

Handicrafts: Haryana has tremendous potential for handicraft activities ranging from stone carvings to pottery, embroidery, weaving and painting. While the traditional handicrafts are practiced mainly in rural parts of Haryana, modern handicrafts are popular in urban regions like. The Surajkund Crafts Mela is a unique festival held annually. Craftsmen from all over the country as well as abroad attend this exhibition to display their skills and works. List of key handicraft activities in Haryana are presented in the table.

Handicrafts Activity	Potential Region
Pottery	Most of rural Haryana
Upholstery, Embroidery	Panipat, Rewari
Toys	Gurgaon

Source: Planning Commission, Haryana Development Report

Bio Technology: Bio Technology is one of the emerging sectors in Haryana. The state has envisaged becoming a leader in the field through a sector specific policy, and has constituted a nodal agency to oversee the growth of the sector. The state provides impetus to the sector through incentives ranging from capital subsidy to training assistance and preferential allotment of land. Key infrastructure already present in the state includes Post Graduate Institute of Medical Science, Rohtak, State Energy Research Institute, Gurgaon, National Bureau of Animal Genetic Resources, Karnal. Agricultural research on hybrid varieties and clinical trials are amongst the key activities undertaken in the state, major agricultural research institutions are CCS Haryana Agricultural University, Hisar, National Dairy Research Institute, Karnal and National Horticulture Board, Gurgaon.

Chemical and Pharmaceuticals: Chemical and Chemical products are one of the major industries in Haryana. The state has more than 450⁴⁹ working factories producing chemicals and chemical products. The Industrial and Investment Policy of 2010 lists the Pharma sector as one of the key investment areas, the state government has also introduced procedural reforms in connection with grant and renewal of manufacturing licenses to remove bottle necks. There is a pharma cluster is present in the district of Karnal.

Key industrial activity in both large scale industries segment and small scale segment for major industrial districts of Haryana

Snapshot of key Industrial Districts in Haryana			
District	Contribution of District contribution to overall state	Potential Sectors for large scale industrial	Key MSME Activities

⁴⁹ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

	manufacturing output (in %)	growth	
Gurgaon	34.61	Food, Auto, Textile, IT,	Agro based, embroidery, leather, metal, engineering parts
Faridabad	17.62	Auto, footwear, machinery	Agro based, rubber, metal, plastic, wood based, engineering units, electrical goods
Rewari	7.88	Auto industry, electronics, food processing, mineral processing, pharmaceuticals, metal based	Agro based, embroidery, wood based, leather based, metal based, engineering parts
Hisar	7.09	Textile, metal, food processing	Agro based, wood based, chemical based, metal based and engineering goods
Sonipat	4.15	Food processing, books, leather, metal, auto and dairy	Agro based, textile, rubber, chemical products
Jhajjar	4.11	Leather, ceramics, paper, metal	Agro based, textile, wood based, rubber based, metal based and electrical machinery
Panipat	3.95	Oil, fertilizers, textiles	Agro based, textile, chemical and metal

Source: Development Commissioner Ministry of Micro, Small and Medium Enterprises

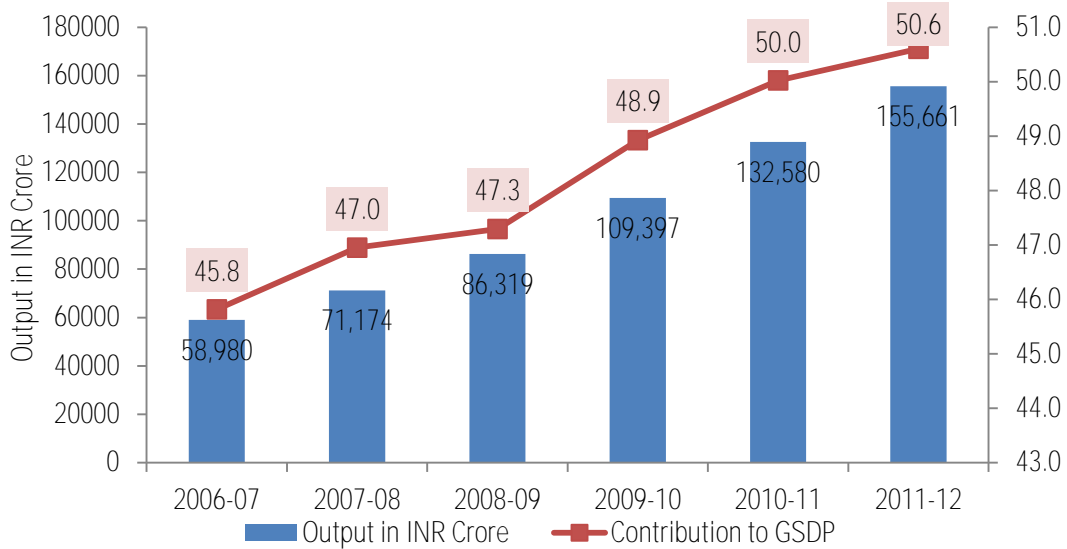
7.3.3 Tertiary Sector

The tertiary sector is the largest contributor to the state economy, contributing 50.60 percent⁵⁰ to GSDP in 2011-12, and is growing at a CAGR of 21.42 percent⁵¹.

Contribution of tertiary sector towards GSDP

⁵⁰ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

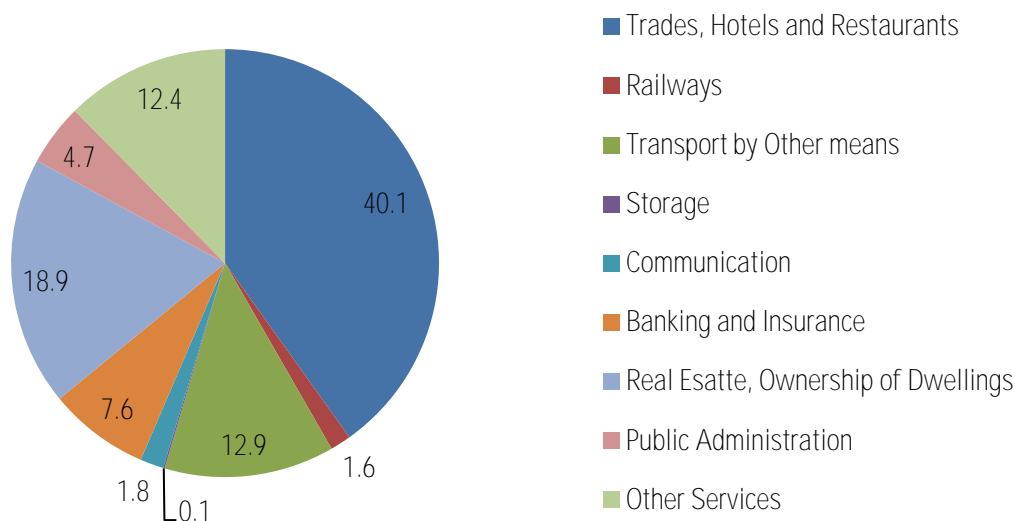
⁵¹ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)



Source: Economic Survey of Haryana

The key components of tertiary sector include Hospitality sector, Real Estate, Ownerships of Dwellings, Business Services, business services, Transport, Public Administration, Banking and Insurance.

Contribution of Tertiary Sector in Haryana (2011-12)



Source: Haryana Statistical Abstract 2011-12

The state government, over the past decade, has undertaken several initiatives towards transforming Haryana into an IT driven economy. The state had drafted the IT Policy way back in 2000. With increasing focus on adoption of IT in every sphere of public service activity, the sector is expected to continue contributing significantly to the economy.

IT/ITES: The state government is pro actively involved in furthering Haryana standing in the IT services sector. The IT policy⁵² of the state encourages setting up Technology Parks, Cyber Cities, IT Corridors and other IT related industries in the state. The state also seeks to converge other cutting edge technologies like Bio Technology, Robotics and Nano Technology with Information Technology. Gurgaon has emerged as the IT hub for the state, nearly all major IT companies in India are present in Gurgaon.

The IT/ITES exports reached INR 23,000 crores⁵³ in 2009-10. The Haryana Government has granted 33 licenses for Cyber/IT parks, 35 IT/ITES SEZs and 10 technology parks coming up at the Industrial Model Township Manesar⁵⁴. The state has also taken many steps towards the improvement of IT infrastructure and employing the use of information technology in schemes like the Public Distribution System, UIDAI and educational schemes.

Financial Services: Banking and financial services are another key sector in the tertiary category in the state. There are totally 2,149 bank branches in the state with 690 rural branches, 466 semi urban branches and 993 urban branches. State Bank of India and its associates has the largest network in the state with 392 branches⁵⁵. From a microfinance perspective there are 44,184 SHGs⁵⁶ with a net savings account totalling to INR 3,678 lakhs. All the banks put together have disbursed loans to the tune of INR 6,196 lakh. In the past two years the number of SHGs in Haryana grew by 20.19 percent as against the national average of 14.48 percent.

Tourism and Hospitality: The state ranks sixteenth in the total number of tourist footfalls India. The Haryana state Government has been paying increased attention to tourism in the past few years, Tourism (along with IT) is one of the areas where the Government has a separate policy. **Haryana's geographical presence in the Kuru region** lends historical and mythological value to it. A recent study⁵⁷ commissioned by the Ministry of Tourism, Government of India identified four tourism circuits in the state, which have the potential to attract tourists from world over. They are:

- Kalka - Panchkula - Naraingarh-Yamuna Nagar—Kuruksheetra-Thanesar—Pehowa-Panipat
- Rohtak – Meham – Hansi – Hisar – Dabwali
- Surajkund – Damdama Lake – Faridabad (Badhkal Lake) – Palwal
- Mahendragarh – Madhogarh – Narnaul – exit towards Shekhawati

The Haryana Tourism Policy of 2008 aims at increasing state's income through tourism at the rate of 10 percent per annum. Some of the key features of Haryana Tourism Policy are:

- Financial Assistance for Mega Projects (investment of \$21.7 million and above or employing more than 500 people) they will also be exempted from the local area development tax.
- Interest Free loan to small Projects and exemption of electricity duty for new projects for the first five years.

⁵² <http://haryana.gov.in/government%20Policies/it%20policy.asp>

⁵³ http://www.ibef.org/download/Haryana_190111.pdf

⁵⁴ <http://www.hsiidc.org/>

⁵⁵ http://rbidocs.rbi.org.in/rdocs/Publications/PDFs/BRABCP310810_F.pdf

⁵⁶ <http://www.nabard.org/departments/pdf/status%20of%20microfinance%202011-12%20full%20book2.pdf>

⁵⁷ <http://tourism.gov.in/writereaddata/CMSPagePicture/file/marketresearch/Tentatively%20Identified%20circuit%20for%20various%20states/new/Haryana.pdf>

Category of Activity	Tourist Locations
Heritage Sites	Faridabad, Kurukshetra, Jhajjar, Panipat, Rohtak, Sonipat
Wildlife Parks, Lakes, rivers and Hill Stations	Gurgaon, Jhajjar, Faridabad, Mewat
Metros and Major Tourism Centre	Chandigarh, Faridabad, Gurgaon
Eco Tourism	Sultanpur Bird Sanctuary, Bhindawas Bird Sanctuary
Farm Tourism	Most of the districts in Haryana have large farms, this type of tourism is nascent but has huge potential
Golf Tourism	Faridabad, Mewat, Gurgaon
Cultural Tourism	Surajkund Mela, Faridabad

Source: Tourism Survey for the State Of Haryana

Trade and Retail: With rapidly increasing per capita income the state has bright prospects for organized retail. Major cities like Faridabad and Gurgaon have seen the development of many organized mall spaces like the Crown Plaza, the Pristine Mall, Ambience Mall, Sahara Mall and Metropolitan Mall. As of 2009, Gurgaon ranks third in the list of cities having largest number of Malls (43)⁵⁸. Trade and retail business accounted for around one fifth of the GSDP in the year 2011-12.

Transport and Logistics: Major cities in Haryana are strategically located in close proximity to the National Capital Region, which gives them an easy access to the Indra Gandhi International Airport. There are 13 National Highways in Haryana totalling to 1,633 km of roadways⁵⁹. Apart from this, the state also has 30 state Highways measuring 2,494 km in length. Haryana, having a great agrarian base, offers significant opportunity for warehousing and transportation. HWC runs warehouses for the storage of agriculture products and minors forest produce offered by individuals, co-operative societies and other institutions. The strategic location of the state makes it an obvious choice to become a prominent warehousing hub. The Haryana state Warehousing Corporation has a total capacity of 17.95 lakh MT⁶⁰ which is one of the highest for the country (larger than much bigger states like Maharashtra, Tamil Nadu and Rajasthan etc).

Healthcare: A planning Commission report⁶¹ estimates that Haryana will be spending Rs. 1,226 per capita on health in the year 2019-20, which is the second largest for all large Indian states (with the exception of Maharashtra). The figure however is still less than the normative figure of Rs. 1,500. The average life expectancy of Haryana at 65.2 years, is higher than the rest of India at 62 years.

Tertiary sector: Its contribution to the GSDP stood at more than 50 % for the year 2011-12, and it is expected that this sector will keep on growing in Haryana. Haryana's tertiary sector has observed almost double growth than the rest of India (21 percent in Haryana versus 10 percent at all India level). However, the fact remains that this growth is concentrated to only few districts, the top five contributors to the service sector account for more than 58 percent of the total service

⁵⁸ <http://businesstoday.intoday.in/story/the-top-five-cities.html/1/4265.html>

⁵⁹ <http://www.nhai.org/statewise1.asp>

⁶⁰ http://hwc.nic.in/storage_capacity.html

⁶¹ http://planningcommission.nic.in/reports/genrep/rep_uhc0812.pdf

sector output in the state. While cities like Gurgaon and Faridabad are leaders even at the national level, others like Mewat and Fatehabad are lagging behind. The penetration of organized retail is huge in districts like Gurgaon and Faridabad. Trade, Hotels and Restaurants, Real Estate, Transport, Financial Services and Public Administration are some of the largest sub sectors in the state.

Key Service Sector Districts with High Tertiary sector Output	
District	Contribution to the State Tertiary Sector
Gurgaon	22.55
Faridabad	14.14
Panipat	9.18
Ambala	7.41
Karnal	4.73

Source: Planning Commission reports on District Domestic Products

Sector	Policy Thrust	Growth Regions
IT-ITES	Preferential allotment of land, uninterrupted power supply, sales tax concession, relaxation of floor area regulation, clearances and support	Manesar, Gurgaon, Faridabad, Panipat, Ambala
Tourism	Financial assistance to mega and small projects, exemption from electricity duty for a fixed time period	All major Tourist spots in the state
Food Processing	Providing Subsidies, exemption from demand charges on electricity, exemption from excise duty for products made of fruits, Interest free loans	Sonapat, Panipat, Jind, Sirsa
Petro Chemicals	Development of Petro Chemical Infrastructure in the state	Panipat
Biotechnology	Development of infrastructure and converging high level technologies for increased benefit and growth	Gurgaon, Karnal, Kundli-Manesar-Palwal expressway
Warehousing and Logistics	Haryana state Warehousing Corporation (MPWLC) is appointed as the nodal agency for the development of logistics sector	Kaithal, Karnal, Hisar, Fatehabad, Sirsa, Jind, Palwal,

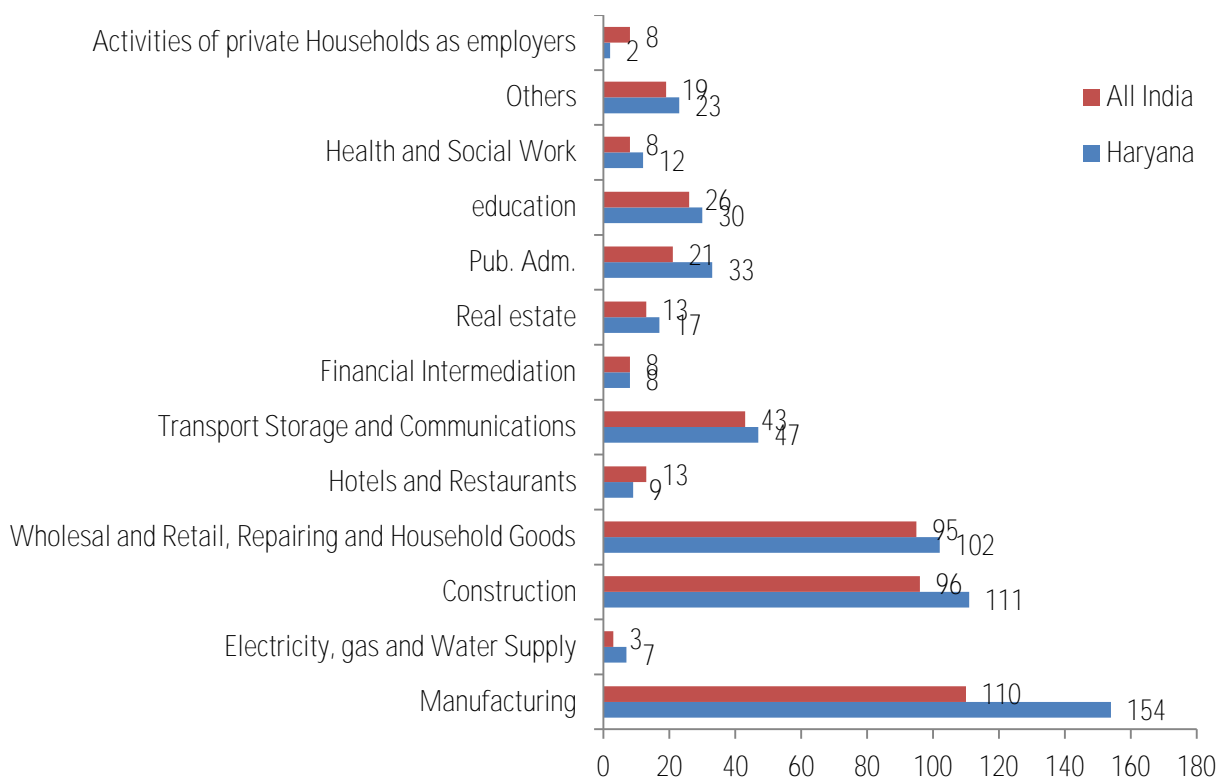
Source: Acts, Rules, Schemes and Services, Government of Haryana

6 Labour Force Distribution in the State

As per the NSSO 66th Round Employment Survey, Worker Participation Ratio (WPR) per 1000 persons in the 15-59 age group based on current daily status is 503 compared to 509 for an all India level⁶². The Labour Force Participation Rate (LFPR) per thousand persons in the 15-59 age group based on current daily status for both Rural and Urban Haryana is 533 in comparison the National averages are 563 and 506 for rural and urban areas respectively⁶³. The parity in rural and urban figures of LFPR shows that dependence on agriculture for employment is lower in Haryana, than most other states of the country. The development of the service sector combined with high economic growth in Haryana has created more Urban Jobs in industrial centres like Faridabad and Gurgaon. Haryana attracts one of the highest investments for any state in India. Subsequently, Haryana has a low unemployment in the age group 15-59 (based on current daily status) of 56 against the national average of 67.

As of 2004, Haryana has 44.4 percent⁶⁴ of its working population employed in the Agriculture sector. This figure has in fact come down from 53.4 percent in 1991 and is much lower than the national average of 53.2 percent. Around 27 percent of the working population is employed in the Secondary sector, which is higher than the national average of 21 percent. The corresponding fractions for the tertiary sector are 28 percent and 21 percent for Haryana and India respectively. The distribution of workers in the primary and secondary sectors is as depicted in the chart⁶⁵.

Comparison of workers working in the secondary and tertiary sectors (per thousand)



Source: Haryana Development Report, Planning Commission

⁶² Migration in India NSSO 64th Round

⁶³ Migration in India NSSO 64th Round

⁶⁴ Haryana Statistical Abstract, 2011-12

⁶⁵ Migration in India NSSO 64th Round

It is evident that the most secondary and tertiary sectors have more workers per thousand, than the national average with the manufacturing sector performing particularly well.

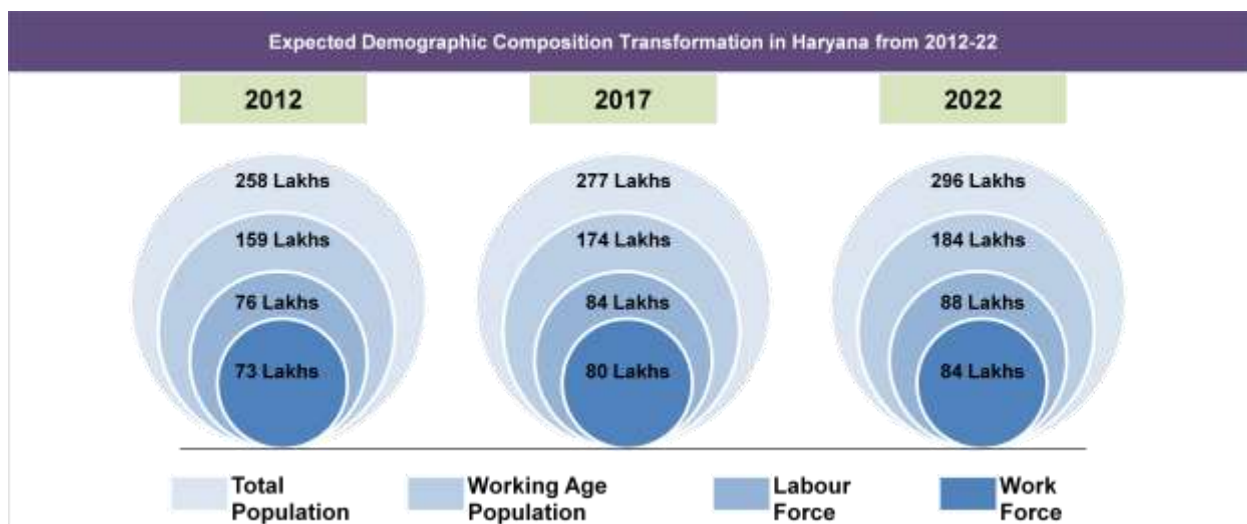
Haryana Labour force and Workforce for 2011, 2016 and 2021, are estimated considering the LFPR, WPR from NSSO 66th Round Employment Survey and applying it over the estimated population in the 15-59 age group for these periods. Overall labour force and workforce would change because of the change in working age group population (15-59 age group).

Haryana Work Force Estimations (in Lakhs)				
Year	Population	Working Age Population	Labour Force	Work Force
2012	258	159	76	73
2017	277	182	84	80
2022	296	195	88	84

Source: KPMG Estimates, Registrar General and Census Commissioner (2006); Population Projection for India and States 2001-26; National Commission on Population, Govt. of India

Availability of working age population measured from 15-59 year age group is estimated to grow from 159 lakhs in 2012 to 184 lakhs by 2022. While the period between 2012 and 2017 is estimated to witness an addition of 17 lakhs to the working age group, further addition is expected to drop to 13 lakhs during 2017-22. Labour force measured from the population employed, is expected to increase from 73 lakhs in 2012 to 84 lakhs by 2022. In order to sustain current levels of worker participation rates, there is a need to create additional jobs in the state. To realize the additional employment opportunities over the next decade, incremental labour force has to be equipped with specific skills suiting the needs of industry creating the employment.

Demographics Transformation in Haryana



Source: KPMG Analysis, Registrar General and Census Commissioner (2006); Population Projection for India and States 2001-26; National Commission on Population, Govt. of India

7 Estimated labour force composition in 2017 & 2022

District wise Labour force for 2012, 2017 and 2022 are estimated considering the district level participation rates based on census 2001 data along with LFPR, WPR from NSSO 68th Round Employment Survey and Census 2001, by apportioning participation rates on a pro rata basis.

During 2012-22, the top five districts contributing to incremental labour force in the state will be Fatehabad, Jind, Sirsa, Bhiwani and Hisar. Meanwhile, the districts with lowest expected contribution to incremental workforce in the state during 2012-22 are Ambala, Gurgaon, Yamunanagar, Panchkula and Mahendragarh.

Projected district wise labour force (2017)

District	Estimated Population 2017	Estimated Working Age Population 2017	Estimated Labour Force 2017
Ambala	1,235,054	772,686	378,501
Bhiwani	1,789,008	1,119,256	501,379
Faridabad	1,980,872	1,239,292	480,424
Fatehabad	1,031,093	645,082	487,339
Gurgaon	1,657,646	1,037,072	324,819
Hisar	1,908,848	1,194,231	745,267
Jhajjar	1,049,038	656,309	417,147
Jind	1,460,318	913,618	570,477
Kaithal	1,175,897	735,676	366,450
Karnal	1,647,677	1,030,835	376,095
Kurukshetra	1,055,879	660,589	293,179
Mahendragarh	1,009,286	631,439	223,089
Mewat	1,192,270	745,920	294,675
Palwal	1,141,313	714,039	309,365
Panchkula	614,372	384,369	175,937
Panipat	1,319,430	825,475	379,834
Rewari	985,473	616,541	297,347

Rohtak	1,161,558	726,705	307,228
Sirsa	1,417,670	886,936	578,535
Sonipat	1,587,122	992,950	454,657
Yamunanagar	1,329,028	831,479	388,657

Source: KPMG Analysis, Registrar General and Census Commissioner (2006); Population Projection for India and States 2001-26; National Commission on Population, Govt. of India

Projected district wise labour force (2022)

District	Estimated Population 2022	Estimated Working Age Population 2022	Estimated Labour Force 2022
Ambala	1,316,261	818,598	400,991
Bhiwani	1,906,640	1,185,761	531,170
Faridabad	2,111,119	1,312,930	508,971
Fatehabad	1,098,890	683,413	516,297
Gurgaon	1,766,640	1,098,694	344,119
Hisar	2,034,359	1,265,192	789,551
Jhajjar	1,118,014	695,306	441,933
Jind	1,556,337	967,904	604,374
Kaithal	1,253,215	779,389	388,224
Karnal	1,756,015	1,092,086	398,442
Kurukshetra	1,125,305	699,840	310,599
Mahendragarh	1,075,649	668,959	236,345
Mewat	1,270,665	790,241	312,184
Palwal	1,216,357	756,467	327,747
Panchkula	654,769	407,208	186,391
Panipat	1,406,186	874,524	402,403
Rewari			

	1,050,270	653,175	315,015
Rohtak	1,237,933	769,885	325,483
Sirsa	1,510,885	939,637	612,911
Sonipat	1,691,479	1,051,950	481,672
Yamunanagar	1,416,414	880,885	411,751

Source: KPMG Analysis, Registrar General and Census Commissioner (2006); Population Projection for India and States 2001-26; National Commission on Population, Govt. of India

8 Migration Situation in the State

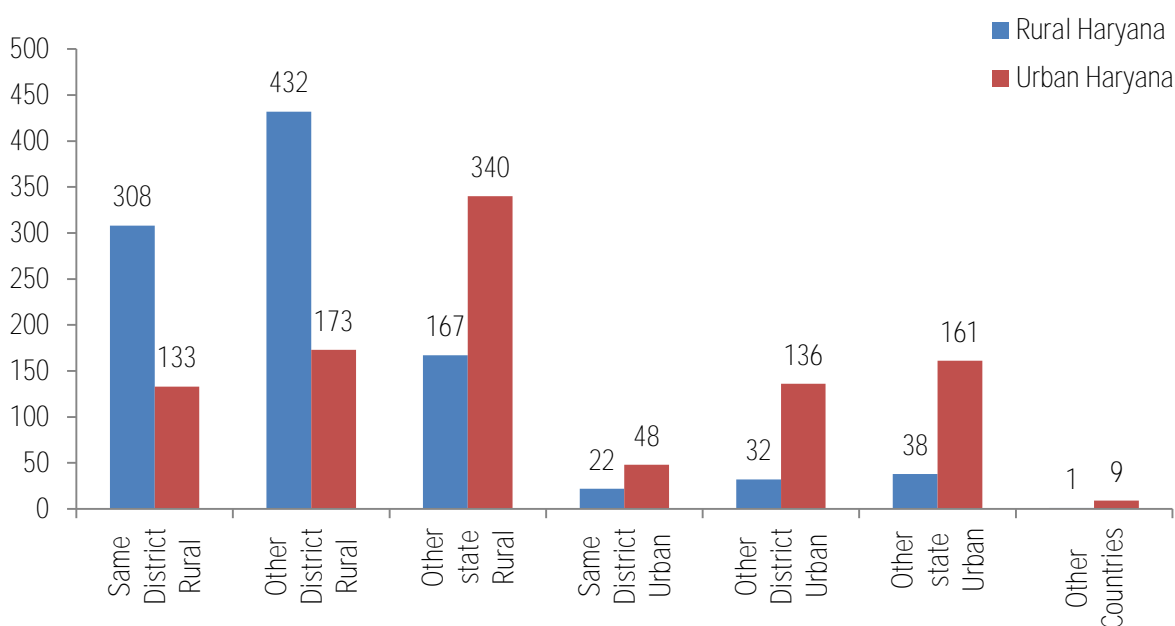
Migration in Haryana is moderate in comparison to the scenario at all India level, with only 8 out of 1000 households reporting migration activity in 2009-10 as against 19 at India level⁶⁶. Haryana has a significantly higher migration in urban areas in comparison to rural areas, which is similar to the trend observed at a national level.

Within urban areas, Gurgaon, Manesar and Faridabad have emerged as industrial agglomerate over the years and have been a historical destination for in-ward migration both within state and from other states.

The male migration rate is far lower than female migration rate, in both rural and urban areas. In Haryana Rural, nearly 59.3 per cent of the females are migrants while the male migration rate is only 4.1 percent⁶⁷. In Haryana Urban, the male migration rate is nearly 28 per cent compared to female migration rate of 58 per cent⁶⁸. Based on interactions with migrants, it can be inferred that seeking better livelihood and employment opportunities has been the key driver for migration amongst male population in Haryana. While for female population in the state, marriage has been the key driver for migration.

Around 49.3 percent of the male migrant population migrates for employment related reasons and only 2.8 percent migrate for education related reasons while 86.2 percent of the female migrant population migrates due to marriage reasons⁶⁹.

Distribution (per 1000) of migrants by location



Source: NSSO 64th Round Survey

Analyzing the pattern of migration in the state, 31 percent of the migration in rural Haryana happens within nearby

⁶⁶ Migration in India NSSO 64th Round

⁶⁷ Migration in India NSSO 64th Round

⁶⁸ Migration in India NSSO 64th Round

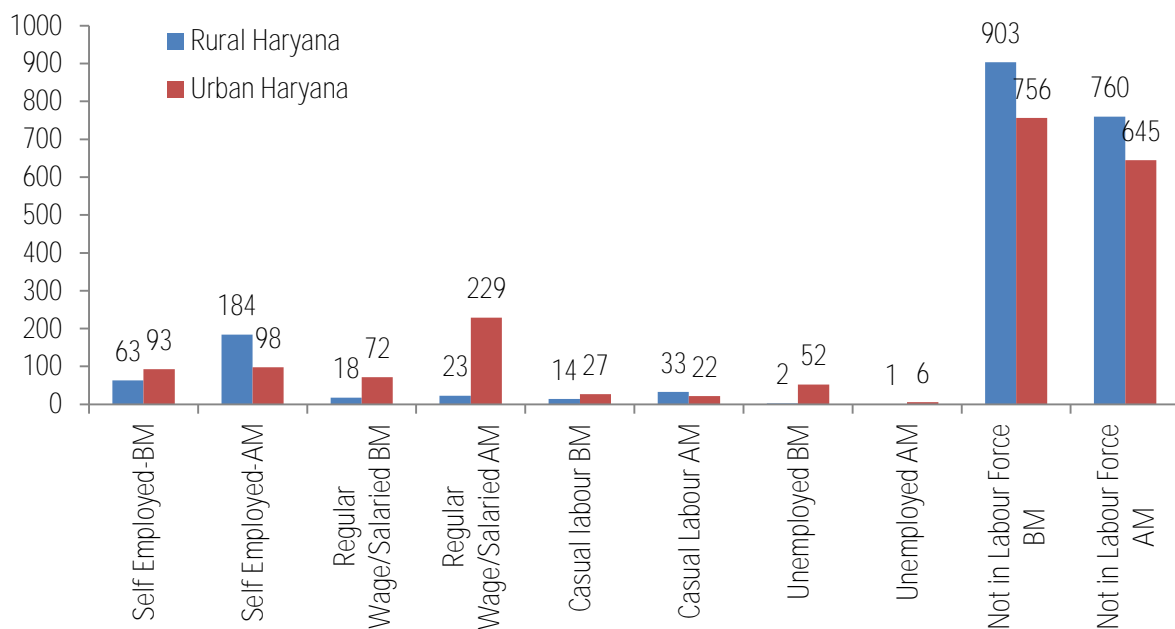
⁶⁹ Migration in India NSSO 64th Round

villages in the same district. Interactions with rural migrants revealed that most of them were unwilling to part from their families and villages for a long period of time.

Further, there are a substantial number of livelihood activities that the migrant population gets to engage in, within a 50-100 km radius – which the movement to a distant urban cluster in a different district might not guarantee, given the associated cost factors. Migration from urban to rural areas is predominantly due to female migration associated with marriage reasons.

Migration offers better economic prospects for individuals in the state as there is significant increase in number of people engaged in economic activities post migration. Non-work related aspects form the prominent reason for migration. A significant increase in self employment has been observed due to migration, especially in rural parts of Haryana, while casual labour composition shows marginal increase in comparison to other activities, in rural Haryana and a decrease in urban Haryana. There is a marked increase in the salaried class post migration in urban Haryana.

Distribution (per 1000) of migrants by their usual principal activity status before and after migration



Source: NSSO 64th Round Survey

9 Incremental Manpower Requirements

Industries	Demand 2012-17				Demand 2017-22			
	Skilled	Semi skilled	Minimally skilled	Total	Skilled	Semi skilled	Minimally skilled	Total
Agriculture & Allied Activities	-	-	(54,344)	(54,344)	-	-	(53,418)	(53,418)
Guar Gum	14	57	71	141	21	86	107	215
Agro Based Industries	85	335	467	888	93	365	506	964
Scientific Instruments	135	541	677	1,353	147	589	737	1,473
Mineral Processing	142	568	710	1,420	150	601	752	1,504
Footwear	139	557	696	1,392	182	729	912	1,823
Beverages	180	719	899	1,798	233	930	1,163	2,325
Paper & Paper Products	275	1,100	1,375	2,750	318	1,272	1,590	3,181
Leather	356	1,425	1,781	3,563	379	1,514	1,892	3,785
Hospitality	1,093	1,640	8,200	10,934	985	1,477	7,384	9,846
Manufacturing of Electrical Products	527	2,108	2,635	5,269	608	2,430	3,038	6,075
Rubber and plastics products	683	2,734	3,417	6,834	786	3,144	3,930	7,859
Chemical & Chemical Products	740	2,959	3,699	7,399	847	3,387	4,234	8,469
Manufacturing of Engineering Products	1,359	5,438	6,797	13,594	1,594	6,378	7,972	15,944
Pharma & Medicinal Products	1,394	5,577	6,971	13,943	1,821	7,282	9,102	18,204
Food Processing	1,435	5,579	8,129	15,142	1,898	7,381	10,754	20,033
Fabricated metal products	1,774	7,095	8,868	17,736	1,786	7,144	8,930	17,859
Construction Based Material	2,233	8,935	11,169	22,337	2,717	10,871	13,589	27,177
Textiles	2,783	11,129	13,912	27,824	3,445	13,774	17,218	34,437
Auto and Auto Components	3,234	12,935	16,174	32,344	3,555	14,219	17,781	35,555
Communication	9,934	29,803	-	39,738	10,106	30,317	-	40,422
Education and Training	7,465	50,254	-	57,720	2,191	14,753	-	16,944
Retail	33,816	33,816	270,527	338,158	30,796	30,796	246,366	307,958
Construction	28,150	56,303	478,568	563,022	25,062	50,126	426,065	501,253
IT&ITES	21,053	49,124	1	70,178	27,160	63,374	1	90,535
Healthcare	18,110	72,439	-	90,549	20,943	83,771	-	104,714
Transportations and Logistics	9,326	148,094	176,194	333,615	11,684	185,530	220,732	417,946
Banking and Financial Services	40,468	121,404	-	161,872	41,433	124,298	-	165,730
Total	186,907	632,666	967,593	1,787,166	190,939	666,535	951,336	1,808,810

Skill requirements in key growth sectors have been analyzed based on industry interactions to understand the detailed manpower needs. Sector level skill interventions are indicated in the section below⁷⁰.

SECONDARY SECTOR

- Auto Assembly

⁷⁰ KPMG Analysis

Category of Skills	Skills
Core Skills	Motor Mechanic, Diesel Mechanic, Fitter, Welder, Fabricators
Allied Skills	Electrician, Wireman
Skills with acute shortage	Specialized welders in Arc welding who can work in extreme conditions on advanced fabrication equipments

- Auto Manufacturing

Category of Skills	Skills
Core Skills	Shop floor technical workers
Allied Skills	Maintenance(Mechanical, Electrical, mechatronics, automobile electronics)
Skills with acute shortage	Painting, Body Building (spot welding), Sheet Metal Work, Machining & Casting.

- Leather Products Manufacturing

Category of Skills	Skills
Core Skills	Pattern Masters, Tailors - 5 stitch/2 stitch/ criss cross, skiving , edgeinking, color makers , dip dyers, buffing , finishing, packaging
Allied Skills	Merchandizing
Skills with acute shortage	Shoe last manufacturing , Quality and Testing

- Food Processing

Category of Skills	Skills
Core Skills	Fitter, Electrician, Wireman, Instrumentation, Lab Technician

Allied Skills	Instrumentation, Packaging (Jar, Pouch) Operator, AOCP, Lab Attendant, Boiler Operator, QC Chemists, STP, ETP Operators
Skills with acute shortage	Extruder, Boiler Operators, PPO is required in industries having in house packing development

- Garments

Category of Skills	Skills
Core Skills	Tailor , Pattern Master, CAD CAM, Embroidery, Production Manager, Garment Pressing, Finishers - Thread Cutters, Packaging
Allied Skills	Merchandizing , Store Managers
Skills with acute shortage	Pattern Masters, CAD CAM operators, Merchandizers, Quality and Testing

- Textiles

Category of Skills	Skills
Core Skills	Braiding Machine Operators, CAD Cam Operators, Ring frame operator, Weaver, Plotters, Processing operator (CDR,BDR,Stuntor), Bar-coding machine operator,
Allied Skills	Machinist, Electrician, Wireman, Fitter
Skills with acute shortage	Braiding Machine Operators, CAD CAM Operators, due to high attrition in operator roles (semi skilled) owing to extreme working conditions industry has high attrition in these roles.

- Handlooms

Category of Skills	Skills
Core Skills	Weavers, Knitters, Knotters, Embroiders
Allied Skills	Electrician

Skills with acute shortage	Lack of Sales and Marketing Professionals
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- Guar Gum

Category of Skills	Skills
Core Skills	Machine Operator, Bar Code Operators, Processing Operator , Fork Lift Operators , Plant Supervisor, Packaging Supervisor
Allied Skills	Electrician, Wireman, Fitter, Transportation and Logistics
Skills with acute shortage	Machine Operators Most Guar Gum units in the state are mid scale. There is poor perception of industry and hence youth are not interested in working in it

- Scientific Instruments

Category of Skills	Skills
Core Skills	Machine Operators, Turner, Welding
Allied Skills	Electrician and Wireman
Skills with acute shortage	Export, quality and testing lab including CFC

- Engineering Products/ Fabricated Metal

Category of Skills	Skills
Core Skills	Motor Mechanic, Diesel Mechanic, Fitter, Welder, Fabricators
Allied Skills	Electrician, Wireman
Skills with acute shortage	Specialized welders in Arc welding who can work in extreme conditions on advanced fabrication equipments, Sheet Metal Work, Machining & Casting.

- Agriculture Implements

Category of Skills	Skills
Core Skills	Fitter, Welder, Fabricators
Allied Skills	Electrician , Wireman
Skills with acute shortage	Specialized welders in Arc welding

- Chemical and Chemical Products

Category of Skills	Skills
Core Skills	Mechanical, Electrical skills
Allied Skills	Instrumentation, boiler attendant, AOCP, lab attendants
Skills with acute shortage	MSc/BSc chemists, Electronic Automation with understanding of PLC systems

- Footwear

Category of Skills	Skills
Core Skills	Tees Lasting, Sole Supporting, Sheet and Side Lasting, Dunlop, Buffing & Wiping, Baffling, Stuffing, Cement Cleaning, Heel Lasting
Allied Skills	Leather embroidery, Skiving, Hand padding, Color preparation, Dip dyeing and drum dyeing
Skills with acute shortage	Shoe last manufacturing , Quality and Testing

- Electrical and Electronics

Category of Skills	Skills
Core Skills	Electronics, PPO, Electrical, Instrumentation

Allied Skills	Fitter
Skills with acute shortage	Electronics and Instrumentation

- Construction

Category of Skills	Skills
Core Skills	Electricians, carpenters, barbenders, welders and masons
Allied Skills	Minimally skilled workers
Skills with acute shortage	Machine Operators

TERTIARY SECTOR

- Transportation and Logistics

Category of Skills	Skills
Core Skills	Heavy vehicle drivers, logistics management
Allied Skills	Administrative, computer data management
Skills with acute shortage	Scheduling and logistics planning

- Banking and Financial

Category of Skills	Skills
Core Skills	Knowledge on core banking/mobile/internet platforms
Allied Skills	Sales and Marketing
Skills with acute shortage	Insurance underwriting, claims management

- Organized Retail

Category of Skills	Skills
Core Skills	Shop floor executives/supervisors, computer operator
Allied Skills	Transportation & logistics staff
Skills with acute shortage	Store management, stock planning

- Healthcare

Category of Skills	Skills
Core Skills	MBBS Doctors, MD/MS specialists, Physician Assistants/Compounders, Radiologists, Dialysis technician, Respiratory technician and OT Assistants & Perfusionist.
Allied Skills	Lab technicians, pharmacists
Skills with acute shortage	Physiotherapists, Biomedical Instrumentation technicians

- Education

Category of Skills	Skills
Core Skills	School teachers, higher education faculty
Allied Skills	Knowledge on advanced teaching tools
Skills with acute shortage	Technical education trainers

- IT/ITeS

Category of Skills	Skills
Core Skills	Testing – Web Testing or UI Testing, Coders/ Programmers, Analytic and Algorithmic Problem Solving
Allied Skills	Quality and Documentation

Skills with acute shortage	Coders/ Programmers
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PRIMARY SECTOR

- Cultivation

Category of Skills	Skills
Core Skills	Awareness about high yield varieties, micro nutrients and pest Control, Organic farming and Vermi compost methods, Micro irrigation techniques
Allied Skills	Knowledge on food processing techniques and related procedures to extract greater value from farm produce
Skills with acute shortage	Usage and repair of farm equipments, Marketing and management practice

- Agri Allied

Category of Skills	Skills
Core Skills	Modern rearing techniques of live stock, piggery, goatery and fisheries
Allied Skills	Knowledge on processing techniques
Skills with acute shortage	Marketing and distribution of forest/animal husbandry produce

10 Human Resource Development

In order to promote economic and industrial development in a state, the essential requirement is the capacity to develop skilled manpower of good quality in adequate number. Haryana has a number of industrially forward districts like Faridabad and Gurgaon that house branded companies like Honda, Maruthi, Toyota etc. Keeping in mind the preference of youth to pursue employment over entrepreneurship, it is important to cultivate in them the skills necessary for the job market. The state government, in recent years, has initiated a few programs to improve access and quality of education at every level, from primary to post graduate. In that regard, infrastructure development and the increase in focus on technical education in the past decade have been the focus of initiatives.

School Education

The State has witnessed a steady decline in the number of enrolments in the primary level but an increase at the secondary and higher secondary level. While Faridabad has the highest number of total enrolments across the various levels, Panchkula has had the lowest number of enrolments in the period of 2010-12.

District wise details of school statistics are presented in the table

Districts	Primary Level	Middle Level	High/Secondary Level	Total
Ambala	55525	36983	115576	208084
Panchkula	20227	21350	73042	114619
Yamunanagar	60708	29125	141181	231014
Kurukshetra	60096	24726	74552	159374
Kaithal	102913	15297	127137	245347
Karnal	33588	66591	184236	284415
Panipat	76091	46750	95869	222310
Sonipat	21930	30749	246640	299319
Rohtak	100193	45318	57188	202699
Jhajjar	21217	23741	118507	163465
Faridabad	220894	92650	160386	473930

Palwal	63265	25050	118815	227130
Gurgaon	34551	33072	186606	254229
Mewat	151838	23707	20706	196251
Rewari	49464	20129	103593	173186
Mahendranagarh	13159	21511	123422	158092
Bhiwani	44742	54974	250945	350661
Jind	25903	54776	229577	310256
Hisar	164599	94935	137928	397462
Fatehabad	73068	20961	99419	193443
Sirsa	41853	55291	137434	234578
Haryana	1439424	857686	2802754	5099864

Source: Haryana Statistical Abstract 2011-12

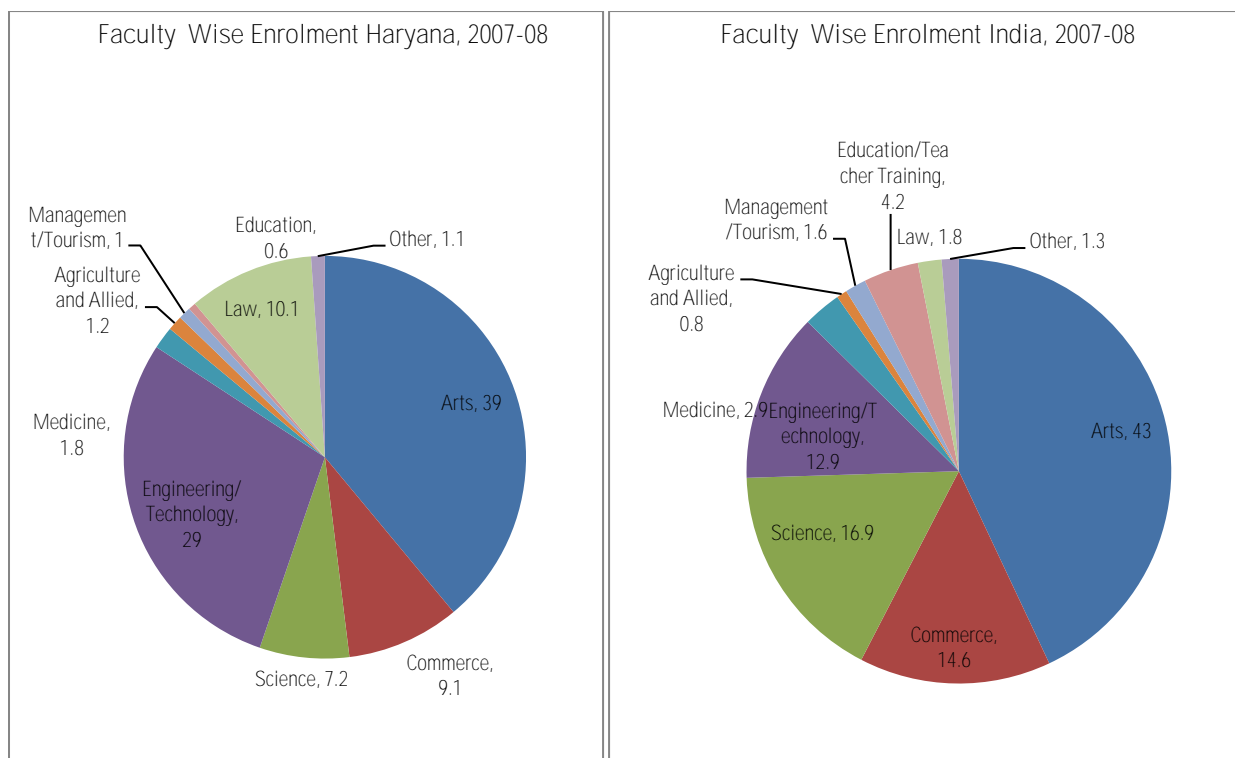
Higher and Technical Education

As per 2007-08 statistics, Haryana has over 4.4 lakh enrolments in higher education across streams standing thirteenth among the states in India. Gross enrolment ratio in Haryana is about 20.13% as compared to the national GER of 19.40% based on recent statistics. Faculty wise breakup of enrolments (at the undergraduate level) in Haryana brings out clear focus that the state has laid on improving technical education over the years with Engineering/Technology enrolment proportions higher than the national average.

State has a significantly high proportion of 11.5% total enrolments in education in comparison to national average of 8.3%. High focus on training adequate faculty has potential to solve the issues of faculty shortages in schools over the next decade.

Comparison of Enrolment in Haryana with India⁷¹

⁷¹ MHRD Statistics 2007



Haryana's institutional framework consists of Universities established by an Act of Parliament (Central Universities) or of a State Legislature (State Universities), Deemed Universities (institutions which have been accorded the status of a university with authority to award their own degrees through central government notification), Institutes of National Importance (prestigious institutions awarded the said status by Parliament), and Institutions established by State Legislative Act and colleges affiliated with the University (both government-aided and unaided). Overview of educational institutions in Haryana is presented in the table.

Category	Number of Institutions ⁷²
Universities, Research Institutes, Institutes of National Importance	24 (IIM-Rohtak, NIT Kurukshetra)
Arts and Science Colleges	192
Teacher Training Colleges	472
Other	1

Technical education governed by AICTE is treated as a separate segment at the state level and is monitored by Directorate of Technical Education. Haryana has leading technical education institutions like IIM Rohtak and NIT Kurukshetra. IIT-Delhi recently announced an expansion of its campus in Sonapat district. These eminent institutions provide immense

⁷² Haryana Higher education Commission

opportunities to leverage their research capabilities to mentor other institutions in related domains. Overview of technical education institutions in Haryana is presented in the table⁷³.

Category of Institutions	Number of Institutions	Intake
Engineering Degree	41	54241
Engineering Diploma	43	58915
MBA	32	12875
Degree Pharmacy	16	2040

Haryana currently has about 24 universities, of which 9 are public. Haryana is home to a number of eminent private universities in the country like Amity University, O.P. Jindal Global University, K. Mangalam University and G.D. Goenka University. Haryana has 161 institutions of technical learning and research which educate approximately 132,721 students.

Vocational Education

Vocational Education is another stream of higher education in Haryana catering to the ever increasing manpower needs of burgeoning industrial growth in the state. Public and private polytechnics and vocational training institutions (ITI s/ ITCs / VTPs) exist in the state which are controlled and supervised by National Council for Vocational Training (NCVT) and Haryana Council for Vocational Training (HCVT). There are 147 polytechnics affiliated to the Haryana State Board of Technical Education. Vocational training infrastructure in ITIs is presented in the table⁷⁴.

Category of Institutions	Training Capacity
Government ITIs	39140
Private ITIs	12804

Key Government Initiatives

Haryana Government has embarked various initiatives to augment capacity in higher and technical education along with improving quality of education and focusing on employability of youth. Engaging the private sector more actively in both formal and non formal modes of education is a key initiative considering the financial constraints for Government expenditure on education.

⁷³ http://techeduhry.nic.in/present_status.pdf

⁷⁴ Directorate of Labour & Training Haryana

The key initiatives of the government to improve the quality and further development of higher education in Haryana are as follows:

- Enactment of Law University: The National Law University, Haryana Act has been notified in 2012. The proposed University will be established at Rajiv Gandhi Education City, Sonipat. HUDA has provided 25 acres of land to the higher education department for establishment of this University.
- Enactment of Anti Ragging Act, 2012: Haryana has begun the enforcement of "THE HARYANA PROHIBITION OF RAGGING IN EDUCATIONAL INSTITUTION ACT, 2012. The ordinance was promulgated to root out ragging in all its forms from the Universities, colleges and schools by instituting stringent anti-ragging measures and provisions for strict punishments to defaulters.
- Haryana Institute of Education, Training and Research at Jind: The State Government has also decided to establish Haryana Institute of Education, Training and Research at Jind which will be developed as Centre of Excellence at national level. This institute will affiliate and regulate B.Ed colleges in the State. Further the institute will act as training and research centre for college and University teachers. 23.5 acres of land for the proposed institute has been identified and the process of transfer of land has been completed.
- EDUSAT PROJECT: EDUSAT project aims to provide education through satellite. The project has been implemented in 63 Government Colleges and 3 Pvt. Aided Colleges in the State. 63 government colleges and 3 Private Aided colleges have been provided with Satellite interactive terminals and Receive only terminals as well (Dual mode). Approximately 80000 students of B.A./B.Sc./B.Com 1st year and final year were beneficiaries of this scheme.
- Rajiv Gandhi Education City: The Government of Haryana has decided to set up Rajiv Gandhi Education City at Kundli (Sonipat), which would act as a hub for higher learning and centre for research in cutting edge technologies such as nanotechnology, biotechnology and genetics. RGEC will provide quality education in the state and also attract reputed domestic and international institutions for higher learning and expert academicians in various disciplines.
- Setting up Post Graduate Regional Centre of Maharshi Dayanand University, Rohtak at Mirpur (Rewari): A Post Graduate Regional Centre of Maharshi Dayanand University, Rohtak has been established at Mirpur (Rewari). The PGRC is being upgraded as a State University.
- Setting up Post Graduate Regional Centre, Jind: A Post Graduate Regional Centre of Kurukshetra University, Kurukshetra at Jind has been established.
- Establishment of Central University Haryana: Central University in District Mahendragarh has been setup during the year 2008-09. Its foundation stone was laid by Hon'ble Human Resource Development Minister, Government of India on 25.2.2009 at Village Jant-Pali (Mahendergarh). The academic work in the university has already been commenced in the building of Govt. college of Education, Narnaul.
- Establishment of Private Universities: 14 Private Universities have been set up in the State. O.P. Jindal Global University, ITM University, Apeejay University, AMITY university have been setup in District Sonipat & Gurgaon respectively and MM University, at Sadopur, Ambala, NIILM University, Kaithal, Baba Mast Nath University, Rohtak, Ansal University, Gurgaon and Manav Rachna University, Palwal, Shri Guru Gobind Singh Tricentenary University, Gurgaon, SRM Sonipat, KR Mangalam, Gurgaon, GD Goenka, Gurgaon, Jagganath University, Bahadurgarh under The Haryana Private Universities Act, 2006.

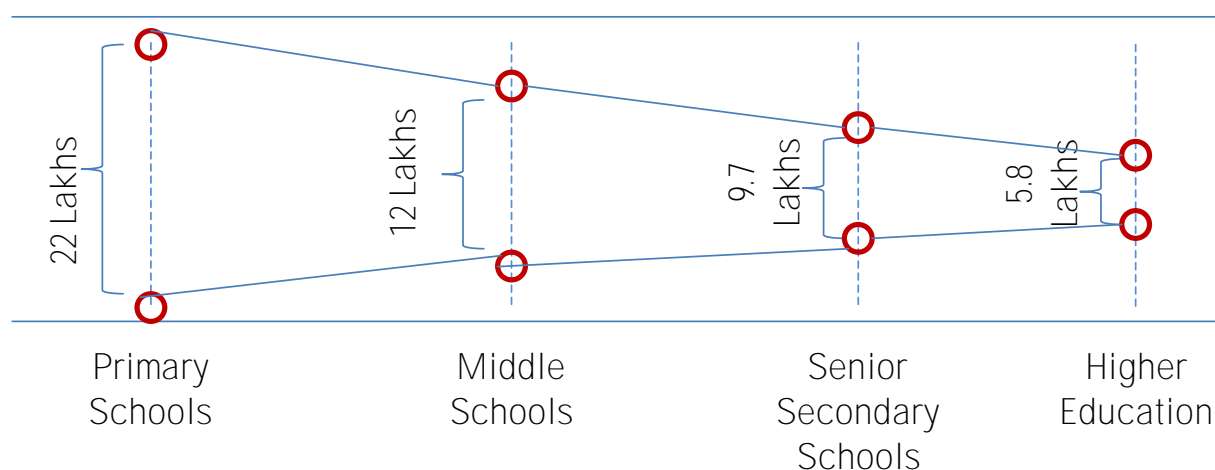
Challenges in the Current Education System

Demand-Supply Gap:

Successful implementation of universal education programs at school level has triggered the need to expand higher education facilities across India, and more specifically in Haryana which has witnessed a steep rise in school enrolments over the last decade. Capacity gaps and affordability are key reasons for drop outs. A measure of the spread of higher education is the Gross Enrolment Rate (GER). GER is an index which measures the enrolment in higher education of the population in the age group of 18-24. GER scenario in Haryana is on par with of the national average as per 2007-08 estimates.

A view of current enrolment status across levels of education would provide a picture of emerging capacity gaps over the next decade or so. Current primary enrolments (5 years) in Haryana standing at 22 lakhs would indicate that in the next decade when this age group moves into higher education category there would be only opportunities for 5.8 lakhs de voicing the other students of higher education accessibility. It would suggest that current capacities can match a GER of 20 percent by the end of the next decade. This is a serious concern faced by majority of the states in India. Considering the need to create trained manpower for growing industries and to develop Haryana into a knowledge economy significant capacity expansion is required in higher education. On conservative estimates if the GER targets for India (30% by the end of 12th plan period 2012-17) have to be matched current education infrastructure in the state has to be nearly doubled by 2017.

Enrolments in Haryana across Education Levels⁷⁵



Low Penetration of Vocational Education:

⁷⁵ KPMG Analysis

Vocational education can play the role of bridging the skill gap. The educational system needs significant growth in order to match the standards of some leading countries that focus on vocational education like Germany, Singapore and China. While the rest of India is primarily driven by service based industries, which have limited scope for vocational education, Haryana is home to a strong manufacturing base.

Regional imbalances in Capacities:

Concerns of inclusion across regions are central to the expansion of education and training in Haryana as is the case with other states in India. Historically, private institutions have focused on urban regions while in rural areas it is predominantly the government that has lead the education system. Low affordability for private education in rural areas is the key reason for limited interest from private players. Government policies on capacity creation have been traditionally based on population prorata basis in a region. This has resulted in limited capacities across rural areas leading to fewer graduating students due to either non-enrolment in higher education or high drop-out rate at the school level. 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 Kaithal, Hisar, Jhajjar and Sonipat. Level of private participation is low in Jhajjar, Palwal, Rewari and Sonipat. Capacity expansion in vocational education and augmentation of private participation has to initiate region specific initiatives considering the current level of variations among the districts. Details of district wise variations in vocational training infrastructure are presented in the table.

Region	Number of ITIs	Seat Capacity	Vocational Training Capacity Density (Seats Per 1000 Population)
Ambala	11	5200	2.51
Bhiwani	18	2876	1.77
Faridabad	8	1864	1.04
Gurgaon	5	1576	1.04
Jhajjar	11	2988	3.12
Jind	10	2572	1.93
Kurukshetra	8	1460	1.51
Panipat	5	1128	0.92
Sirsa	7	2280	1.76
Rohtak	15	3500	2.36
Yamunanagar	7	3184	2.62
Hisar	18	5288	3.03

Mahendranagarh	11	2156	2.31
Fatehabad	5	1576	1.04
Kaithal	11	2988	3.12
Karnal	10	2572	1.93
Mewat	4	892	0.81
Palwal	4	1232	1.18
Rewari	9	1792	2.00
Sonipat	15	3500	2.36
Panchkula	8	1616	2.45
Haryana	225	51944	2.05

11 Skill Training through Government Endowments

Skill development is one of the national priorities for the Government of India. In the Central Government, around 20 Ministries are closely involved with skill development initiatives either through setting up own skill training capacity (done by Ministry of Labour and Employment, Ministry of Higher Education etc) or by providing per-trainee costs of training for specific target populations (done by Ministry of Housing and Urban Poverty Alleviation, Ministry of Rural Development, Ministry of Minority Affairs etc). While some schemes target state level training mandates on a population prorate basis others would be linked to sectoral development of respective ministries. Detailed summary of key Government schemes with training mandate is presented in the table⁷⁶.

Ministry under Central Govt.	Training Scheme Details
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
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
Ministry of Labour	The state is expected to receive funds based on national targets set for Modular Employability Scheme under Skill Development Initiative 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 Centers/RIELIT and up gradation of existing centre, Special Manpower Development Programme in the area of VLSI Design and related software (SMDP-II); Estimations are based on national targets and the state's aspiration to sectoral growth in IT/ITEs
Ministry of MSME	National MSME manpower development targets apportioned to state based on state's employment share in MSME segment
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
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
Ministry of Higher Education	Manpower training targets apportioned based on state's population in higher education age group
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
Ministry of Women and Child Development	Training targets under Women Empowerment Scheme apportioned based on female population in the state
Ministry of Road	Training targets under "Refresher training to drivers" apportioned based on state's share

⁷⁶ National Skill Development Mission

Transport and Highways	in national highway length
Ministry of Social Justice and Empowerment	Training targets apportioned based on state's share of Scheduled Caste population
Ministry of Food Processing	Training targets apportioned based on state's share of contribution to food processing sector
Ministry of Chemicals and Fertilizers	Training targets apportioned based on state's share of employment in manufacturing segment
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
Ministry of Minority Affairs	Training targets under Leadership Development of Minority Women apportioned based on state's share of minority population
Heavy Industries	Training targets apportioned based state's employment share in manufacturing segment

National level scheme funding targets demarcated for Skill Development are apportioned to Haryana considering the following parameters-population, industrial output, land, economic output and social composition of population. Based on indicated cost per trainee for the identified schemes state level scheme wise training potential has been estimated for the period 2012-17. During the five year period 2012-17 major schemes have a potential to train nearly 9 lakh people with Agricultural, Information Technology, Labour & Employment and Rural programs accounting for a major share of this.

Details of scheme/department wise training targets are presented in the table⁷⁷.

Key Schemes with Training Mandate	Estimated Potential Training Capacity in Haryana (2012-17)
Agriculture	230,000
Information Technology	188,000
Labour and Employment	152,000
Rural Development	79,000
HRD	61,000
Urban Development	47,000
Tourism	24,000
MSME	20,000
Road Transport	18,000
Textiles	16,000
Women and Child	15,000
Social Justice	11,000
Chemicals and Fertilizers	10,000
Home Affair	6,000
Construction Industry Development Council	4,000
Food Processing	500

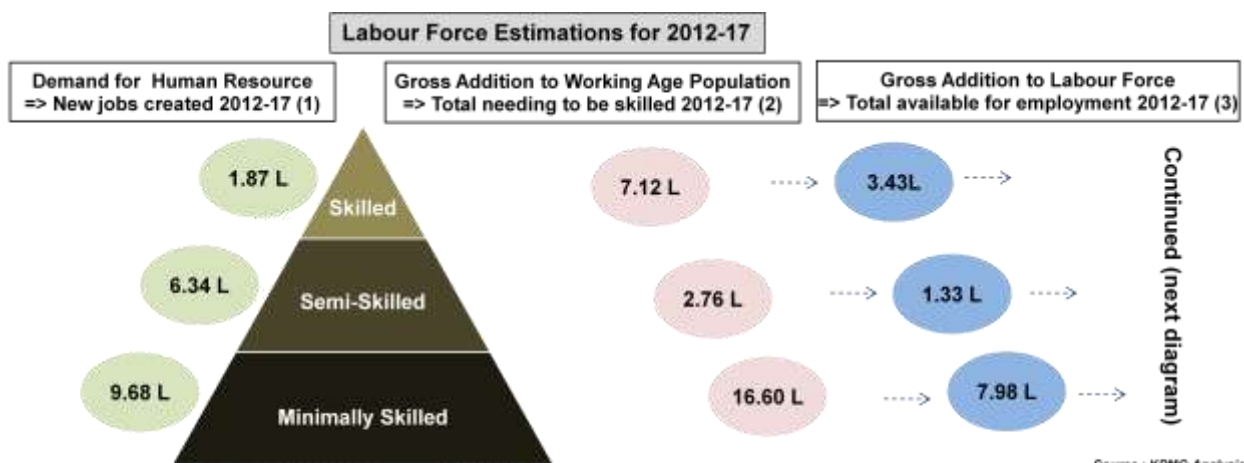
⁷⁷ National Skill Development Mission, KPMG Analysis

12 Estimated Training Capacity Gap in Haryana

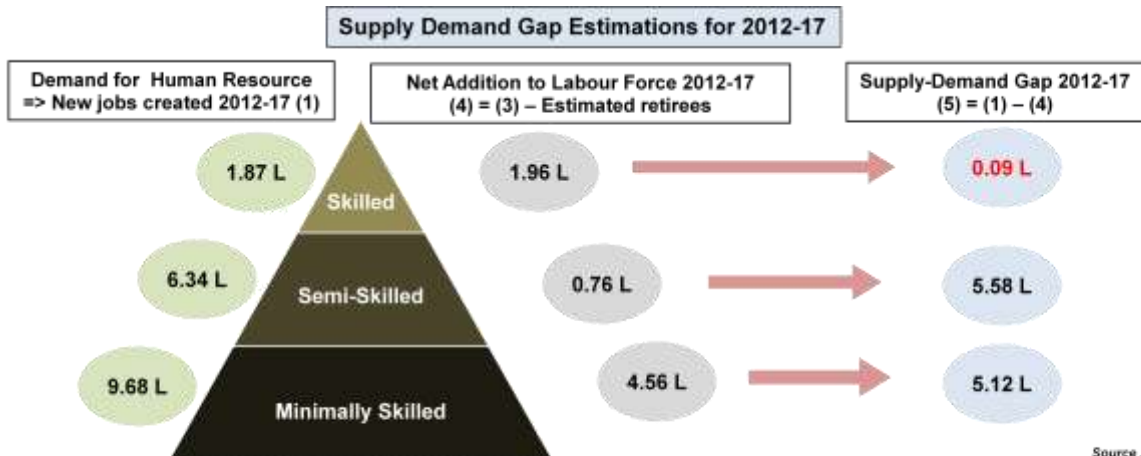
Industry wise manpower skills are classified as skilled, semi skilled and minimally skilled depending on the nature and duration of training and existing training/higher education capacities are categorized to match the three levels. Assessment of existing training infrastructure in comparison to human resource demand over XII Plan period indicates significant capacity expansion requirement for semi-skilled category through vocational education in Haryana with a surplus pool of un-skilled and highly skilled workforce. Vast scope of employment in un-organized sector for un-skilled workers and limitations of the study in terms of sectoral coverage attribute to the surplus manpower in this category.

Excess supply in high skilled category would indicate relatively low employment opportunities in this category within the state. Rapid growth in especially in the services sector is likely to result in huge influx of migrant workers to Haryana. 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 upskilling considering local industrial requirements in order to ensure availability of industry ready manpower.

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

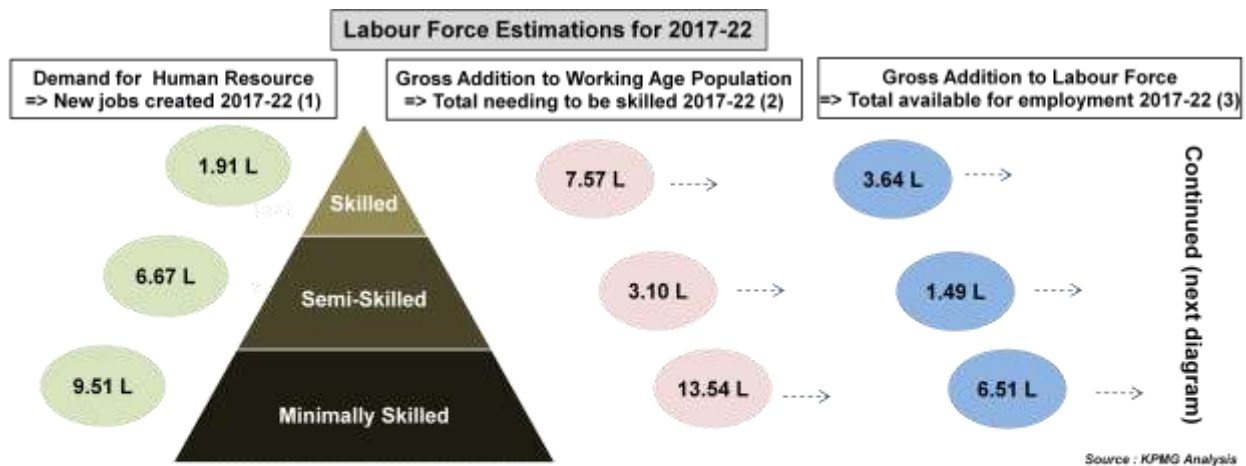


- 1. Demand for Human Resource:** Estimated number of additional employment opportunities created in the state based on sectoral growth
- 2. Gross Addition to Working Age Population:** Estimated new entrants into working age, needing some level of skilling (minimal/semi-skilled/skilled)
- 3. Gross Addition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

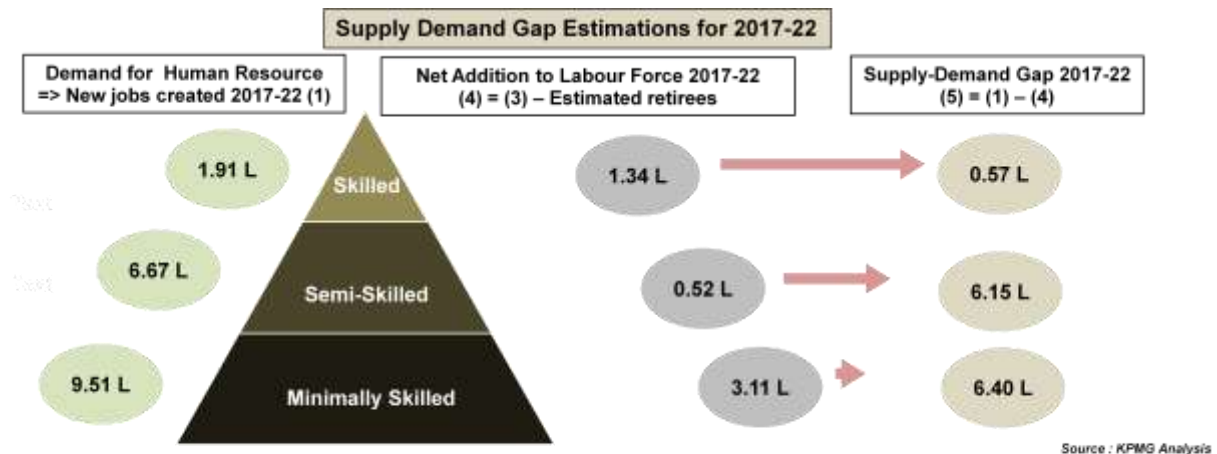


- 4. Net Addition to Labour Force:** Gross Addition to Labour Force minus retirees – i.e. net new labour force available to meet new human resource demand arising from sectoral growth
- 5. Supply of Human Resource:** Difference between Demand for Human Resource (1) and Net Addition to Labour Force (4)

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
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13 Youth Aspirations in Haryana

Having estimated the skill requirements from an industry perspective, it is important to understand the career aspirations of youth, who would be the ultimate beneficiaries of employment generation in the state.

Preference for Employment Vs Entrepreneurship: The youth interviewed exhibited a high preference towards employment over entrepreneurship in almost all districts, except Faridabad. A number of ITI students have set up their own small scale units in Faridabad. Several factors such as poor financial capacity, work environment and socio-cultural factors influenced youth preferences towards employment. Entry level salaries in industries and awareness of career opportunities in the district are other pivotal factors influencing youth preference.

Migration: Migration is linked to socio-economic disparities amongst districts in Haryana. Youth from industrially less advanced areas are open to migrate to Faridabad, Gurgaon and Manesar within Haryana for better employment prospects. However, low level entry salaries remained a key challenge for mobility. The minimum salary expectation for mobility was highlighted as INR 7,000-8,000 per month which is higher than the market level of INR 5000- INR 6000. This in turn limits mobility.

Choice of Education and Training Stream: Economic background of an individual is one of the key factors influencing the program chosen for study. Along with economic background awareness level about the programs typically acquired through family members/seniors is another major influencing parameter. In terms of choice of education, there is a poor perception of vocational training and it remains as one of least preferred option. Students from weaker sections of the society, both economically and socially, are seen to opt for vocational courses over higher education programs primarily due to financial constraints.

Preference for government jobs over private: Generally, the youth expressed a preference for government jobs over private jobs owing to better job security and employment benefits. In terms of private industry, there was a very high preference towards auto and auto components industry in particular. Students also exhibited high preference towards Tier 1 branded companies like Maruti, Honda, Asian Paints, Thumbs up, Osram etc.

Awareness of career opportunities: Awareness of career opportunities was limited or medium across most districts. Low levels of awareness of career opportunities. Higher awareness levels were observed only districts like Faridabad and Gurgaon. While jobs fairs and motivational camps were held at the many institutes to help students understand the various career opportunities available to them, the effectiveness of those were limited.

Higher than market level salary expectations from first job: Youth in the state seem to have marginally higher expectations than market level salaries at a rate of INR 7000-9000 per month for a fresher. This is higher than the average for entry level salaries according to the market.

Sectoral Preference for Employment: Based on interactions with youth on a sample study across the districts of Haryana, sectors taken for manpower estimations were classified as high, medium and low aspiration categories based on their preference to work. Regional considerations along with work place environment and salaries have significant influence on preferences for sectors. Summary of sector-wise preferences from youth across the state are presented in the table⁷⁸.

Sector	Aspiration To work	Sample Characteristics
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⁷⁸ FGDs in Haryana, KPMG Analysis

<i>Primary Sector</i>		
Cultivation	Low	Farming communities/ Minimally Skilled Youth
Allied Activities	Low	Farming communities/ Minimally Skilled Youth
<i>Secondary Sector</i>		
Agro & Food Processing	Low	Vocational Training Students
Textile & Apparel	Medium	Vocational Training Students
Wooden Products & Furniture	Low	Vocational Training Students
Paper & Paper Products	Low	Vocational Training Students
Chemical & Chemical Products	Medium	Vocational Training Students
Rubber & Plastics	Low	Vocational Training Students
Leather Industry	Low	Vocational Training Students
Mineral Processing & Fabrication	Low	Vocational Training Students
Electrical & Electronics	High	Vocational Training Students
Auto and Auto Component	High	Vocational Training Students
Manufacturing of Engineering Goods	High	Vocational Training Students
Manufacturing of Construction Material	Low	Vocational Training Students
Drugs and Pharmaceuticals	Medium	General Youth
Construction	Medium	General Youth
<i>Services Sector</i>	Medium	General Youth
Trade, Retail	Medium	General Youth
Transportation & Logistics	Medium	General Youth
IT-ITES	High	General Youth

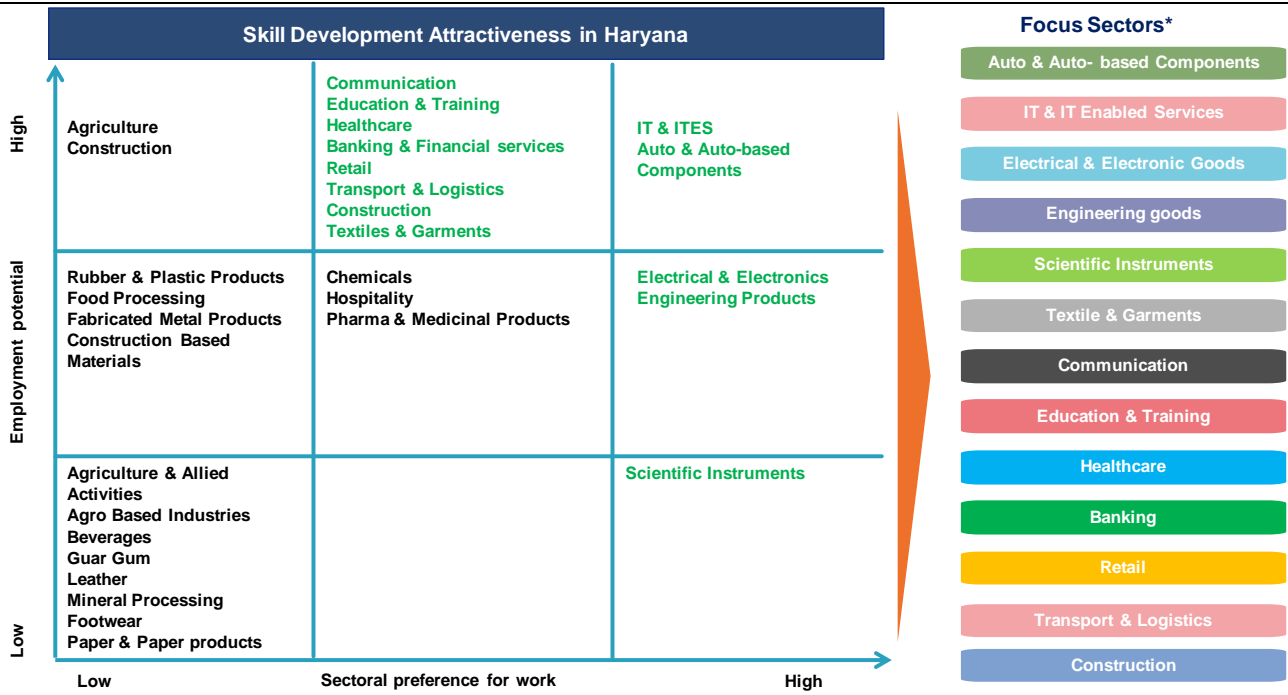
Hospitality & Tourism	Medium	General Youth
Banking & Financial Services	Medium	General Youth
Healthcare	Medium	General Youth
Education & Training	Medium	General Youth

Skill Development Attractiveness Matrix for the State:

Skill Development matrix based on incremental employment potential in a sector mapped against preferences of skilled youth for a career in the respective sectors provides opportunities for implementing sector level skill development initiatives. Skill Development Matrix for Haryana indicates a clear mismatch between student aspiration and job demand available in the state. Sectors such as Textile, Construction and Retail need to work on building a positive image and providing the right working environment/perks to attract talent. Traditional high employment generating organized sectors like Auto & Auto Components, IT/ITES, Healthcare, Banking & Financial Services, Energy and Education etc, have high employee work preference. Stakeholders in skill development & training need to consider the youth aspirations while drafting policies/strategies. Skill Development Matrix for the state is presented below.

Skill Development Matrix for Haryana⁷⁹

⁷⁹ KPMG Analysis



14 Institutional Challenges in Skill Development

Government of Haryana has attempted many measures to promote skill development in the state. While the objectives of skill development initiatives are sound, implementation of the initiatives is fraught with challenges.

The government has been in the forefront of implementing several Central and State funded skill training initiatives like the pilot project launched in 2012 under the National Vocational Education Qualification. However there is a need to create a mechanism to ensure the effectiveness of skill development programs. This would improve the achievement of learning outcomes and employability in the open market of students.

As the curriculum has not been revised since the 1960s, when it was conceived, industries have found it hard to employ candidates from district ITIs as there is a mismatch in expectations. Currently, there is no formal mechanism to periodically review and revise the curriculum based on industry requirements. Traditional engineering trades, though popular amongst students, are decreasing in their relevance to industry, due to increased automation and technology deployment - e.g.: Welding, Turner, Fitting etc.

There is no formal involvement of local industry bodies in the selection of programs in almost all districts. Industry visits are academic in nature without any push towards learning, networking, gathering information about specific employers and career opportunities.

With regard to faculty and management of institutions, there needs to be an upgradation of facilities and infrastructure support. While funding may not be an issue for most government ITIS, maintenance of equipments is viewed as a liability by faculty. This in turn affects training schedule. Contract faculties have a lack of motivation (stemming from low salaries) even though they comprise as high as 80 percent of faculty in districts like Jhajjar. There is also a faculty shortage in districts like Gurgaon, a problem further compounded by very long recruitment cycles, recruitment turnaround time can range anywhere from 6 months to a year. The training offered to teachers is not effective and even the frequency at which it is imparted is very low

In terms of student training, there seems to be a general disillusionment with the objective of the apprenticeship programs. Apprentices are not seen as serious candidates for employment and rarely do these programs lead to placements. Most students receive very low stipends of about INR 2000 per month which is not sufficient to sustain student interest and motivation. Lack of industry support further demotivates students who are a part of these courses.

In terms of placements, ITIs in Haryana must be more proactive in ensuring employment opportunities for students. There is a problem of branding with ITIs, where the perception is very poor. Placements for those students in short term courses are not guaranteed, as these students are not taken seriously by employers. The situation is further worsened by the fact that students are not willing to migrate outside the district at low entry level wages of INR 4,000 to INR 5,000 per month.

There is also a lack of knowledge on career development. Trainees have limited access to career guidance sessions at schools and ITIs to help them with long term career planning. ITIs are also viewed as a path for students who have no other choice. Sometimes this results in the enrolment of students who are not serious about their course.

15 Workforce Related Issues faced by the industry

Based on interactions with industry, it is observed that challenges are often related to quality of the workforce than quantity. Quality issues in the state are two-dimensional - technical knowledge and behavioural aspects - with prospective employees lacking in either or both of them.

Quality of skilled manpower in the district is not up to par with industry expectations. Industry has alleged that in some districts candidates lack even the basic trade related knowledge and machine handling skills. Lack of multi skilling is another complaint; ITIs should offer more options to students. Lack of industry relevant courses further disadvantage candidates. All of this results in significant spending on in house training by the industries themselves to prepare candidates in both technical and non technical areas.

Industries, especially large and medium scale ones, are reluctant to hire fresh candidates to work on advanced machines. Fresh recruits are frequently recruited as assistants. High salary expectations and poor job training also prevent industry from employing new graduates. Local workers also tend to form unions, which industry is not keen on working with. Employment exchanges are seen as ineffective medium due to a lack of updating of the database and few attempts to **keep up with candidates' employment status.**

There is no formal mechanism for industry to provide feedback about the curriculum. The skilling initiatives undertaken by industry are often under the CSR wing and not the business wing. There is also a lack of soft skills amongst local youth and special emphasis needs to be undertaken for training on attitude and professional conduct.

16 Institutional Recommendations for Skill Development in the State

Government

1. Systematic mechanisms to identify and assist potential school dropouts transition into vocational programs

Scheme Objectives:

Currently in Haryana, only one-fourth of students move on to Higher Education. Students likely to opt out of school education, should be proactively identified and brought into the fold of the vocational education system

Integrate vocational courses in school curriculum to equip students with industry relevant skills, as well as skills for starting businesses and self-employment. This will also ensure reduction in dropout rates

Establish Systems for Integrated Learning with Industry through Multi Level (4 Levels) learning structure, where Level 1 and 2 trainings are provided in school, and supplemented by Level 3 and 4 trainings in industry

Implementation:

Class 9th To 12th should be the focus, considering low transition levels from secondary to higher secondary (38%)

Districts with high capacity gaps in secondary and higher secondary systems- Bhiwani, Faridabad, Kaithal, Mewat and Panchkula should be focused upon

Focus on sectors that are high preference as well as high growth sectors of Haryana (Auto-Auto Components, Banking & Financial Services, Hospitality & Tourism, Organized Retail, IT-ITES, Transportation & Logistics)

Upon successful completion of Level 1 and Level 2, candidates can join industry for Level 3 and Level 4 learning within the industry, or opt for self employment opportunities

Scheme Enablers:

Vocational modules for schools need to be standardized to ensure uniform learning outcomes for Level 1 and 2 courses in schools. Local Industry collaborations can be established for Level 3 and Level 4 trainings to students

Considering the shortage of faculty for vocational education, the School Education Department can fund/create systems for Training Trainers for vocational modules in schools.

Support for Entrepreneurship of trained candidates through tie-ups with Financial Institution (Banks, NBFCs)

2. Systematic Setting up of Training Institutes for Faculty on PPP mode

- The poor quality of training imparted is seen to affect training imparted across institutes. This poor delivery has adverse implications on skill acquisition and therefore on employability of students.
- Existing capacity of in the form of Central Training Institutes (CTI) and the National Institute for Technical Teachers' Training and Research (NITTTR) are seen to be inadequate.
- This can be addressed by setting of training institute for faculty on PPP mode.

Objective:

- Quality Technical and non technical training of Vocational Education for potential candidates
- Short term training programs for existing faculty – consisting of both technical and non technical modules
- Development of standardized tests for certification of faculty

Implementation:

- Establish Teachers' Training Institutes in PPP mode in collaboration with SSCs for standardization of training in sectors such as automobile, electronics and engineering, food processing etc
- Partnership with large training providers (private and government) to ensure that the curriculum is suited to their needs, and placements for the trainers on completion of the course
- Development of a standardized testing mechanism for the certification of trainers, akin to those for teachers in the formal education system
- Inclusion of soft skills and the use of technology in the classroom environment to facilitate learning
- Short term refresher courses for those already employed as teachers

3. Encourage branding of Skill Development in the State

- Vocational Education remains a low preference amongst parents and students. The poor perception has resulted in students and parents not expecting any serious outcomes from these courses
- State and local government should promote vocational education as acceptable alternative to formal education

Implementation:

- Campaigns and career counselling to promote dignity of labour and employability through skill training should be held on regular basis

- Career counselling, with information on skill development should be provided at school level itself. There should be high focus on these counselling session in schools observing high drop out rates
- For districts with low enrolments in Vocational Education like Mewat, Palwal and Panipat - There should also be community counselling sessions for focusing on advantages of Skill training

4. Focus On Enhancing Skill Training Capacities In Districts With Low Penetration Of Vocational Education

- Focus on districts with low penetration of vocational education(seat capacity per population) – Mewat, Palwal, Faridabad, and Panipat for capacity expansion through public investments/ special schemes to promote private participation through PPP

Implementation:

- Fast-track the NSDC/SSC affiliated partners to setup training in these districts using subsidized govt. infrastructure (HSIDC etc), by waiving off detailed due-diligence, as NSDC partners are pre-approved through rigorous due diligence on advantages of Skill training

5. Government should encourage companies to direct a part of their mandatory 2% CSR requirement towards support of vocational training in the district

- The companies can participate in Vocational Training activities like - Upgradation of existing infrastructure of the institutes, Support Training of Trainers (TOT) allowing skilled employees to be trainers for fixed no. of hours, for ITI faculty etc

Private Training Providers

1. Participation in Training programs

- Vocational training providers can focus on the following sectors, districts and skills in the state for delivering vocational education in the State:

Sector	Priority	Key Districts	Key Skills Shortage
Construction	High	Sonipat, Gurgaon, Faridabad, Panipat, Palwal, Fatehabad, Hisar, Ambala	Electricians, carpenters, barbenders, welders and masons, Machine Operators
Transportation & Logistics	High	Faridabad, Mewat, Palwal, Rohtak, Sonipat, Panipat, Ambala, Bhiwani, Yamunanagar	Heavy vehicle drivers, logistics management, Scheduling and logistics planning
Retail/Trade, Hotels/ Restaurants	High	Ambala, Faridabad, Gurgaon, Rohtak, Panchkula	Shop floor executives/supervisors, computer operator, Store management, stock planning
BFSI	High	Faridabad, Gurgaon, Palwal, Panchkula, Kaithal, Sonipat	Knowledge on core banking/mobile/internet platforms, Insurance underwriting, claims management, Sales & Mktg
Healthcare	High	Sonipat, Gurgaon, Palwal, Panipat, Bhiwani, Hisar,	MBBS Doctors, MD/MS specialists, Physician Assistants/Compounders, Radiologists, Dialysis technician, Respiratory technician and OT Assistants & Perfusionist Lab technicians, pharmacists, Physiotherapists, Biomedical Instrumentation technicians
IT , ITeS	High	Faridabad, Gurgaon, Panchkula, Sonipat	Testing – Web /UI Testing, Coders/ Programmers, Analytic and Algorithmic Problem Solving, Quality Documentation\
Education & Training	High	Hisar, Gurgaon, Faridabad, Bhiwani, Karnal, Palwal	Technical education trainers, School teachers, higher education faculty, Knowledge on advanced teaching tools

Sector	Priority	Key Districts	Key Skills Shortage
Auto / Auto Comp	Medium	Gurgaon, Faridabad, Rewari, Rohtak, Sonipat	Specialized welders in Arc welding who can work in extreme conditions on advanced fabrication equipments, Motor Mechanic, Diesel Mechanic, Fitter, Welder, Fabricators
Textiles/ Garments	Medium	Gurgaon, Faridabad, Panipat, Bhiwani	Pattern Masters, CAD CAM operators, Merchandizers, Quality and Testing, Braiding Machine Operators, , Finishers - Thread Cutters, Packaging, Ring frame operator, Weaver, Plotters, Processing operator
Construction Based Material	Medium	Yamunanagar, Jind, Jhajjar, Karnal, Rohtak, Sirsa, Sonipat	Specialized welders in Arc welding who can work in extreme conditions on advanced fabrication equipments, Sheet Metal Work, Machining & Casting.
Fabricated Metal	Medium	Faridabad, Gurgaon, Ambala, Yamunanagar, Karnal	Specialized welders in Arc welding who can work in extreme conditions on advanced fabrication equipments, Sheet Metal Work, Machining & Casting, Electrician, Wireman
Food Processing	Medium	Kurukshetra, Karnal, Sonipat, Ambala, Rohtak	Extruder, Boiler Operators, PPO is required in industries having in house packing development, Instrumentation, Packaging (Jar, Pouch) Operator, AACP, Lab Attendant, Boiler Operator, QC Chemists, STP, ETP Operators

2. Focus on Soft Skill and Career Awareness Training

- Introduce mandatory soft skill training focusing on work related ethics professional behaviors
- Conduct regular career counseling sessions for the students to help students make informed career choices and reduce attrition due to clarity of goals and expectations

NSDC

1. Capacity creation in focus sectors and clusters

- Encouraging NSDC Partners to enhance training capacities in the state by focusing on:

- Key sectors based on high employment growth potential and high sectoral preference for working in the sector in Haryana

	Priority	Sectors
Focus Sectors	Very High	Manufacturing: Auto / Auto Components Services: IT & ITeS
	High	Manufacturing: Electrical & Electronics, Engineering, Transportation & Logistics, Textiles & Garments, Scientific Instruments Services: Education & Training, Communication, Healthcare, BFSI, Retail, Construction

- Key districts with low penetration of training infrastructure coupled with high employment growth opportunities

	Priority	Sectors
Focus Districts	Very High	Panipat, Faridabad
	High	Sonapat, Gurgaon, Karnal, Bhiwani, Mewat, Palwal

Industry

1. Capacity creation in focus sectors and clusters

- Large private players in the state should support vocational training institute as part of its CSR activities (especially mandatory 2% CSR requirement) in the district
 - Donate used infrastructure at subsidized costs to academic institutions
 - Upgradation of existing infrastructure of the institutes
 - Excess production capacity/equipments can be shared with institutes during lean production hours/shifts
 - Support Training of Trainers (TOT) allowing skilled employees to be trainers for fixed no. of hours, for ITI faculty
 - Encourage apprenticeships and internships of vocational & ITI students
 - Support in providing level 3 and level 4 training for students with level 1 and level 2 certifications at schools (Refer to recommendations on vocational programs in schools)

2. Support SSC Activities in Haryana

- All key players in the state should actively support SSC's activities in Haryana
 - Share annual plan of recruitment with government and industry nodal agencies for skilling
 - Support training institutes in development/delivery of programs
 - Participation in development of curriculum for specific trades not available in ITIs/VTPs right now
 - 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

17 District Wise Skill Gap Assessment

18.1 Skill Gap Assessment of Ambala District

18.1.1. Administrative Profile

Ambala is surrounded by Panchkula district in the North, Punjab in the west, Yamunanagar in the east and Kurukshetra in the south. The area of district is 1574 sq km, which accounts for 3.6 percent of the total share of state area⁸⁰.

Administratively, the district has been divided into three sub divisions (Ambala, naraingarh and Barara); three tehsils (Ambala, Barara and Naraingarh) and six blocks (Ambala-I, Ambala-II, Barara, Naraingarh, Saha, Shehzadpur).

18.1.2. Social Profile

18.1.2.1. Demographics

Ambala has a total population of 11.28 lakhs as per 2011 Census, of which around 55.6 percent is rural⁸¹. The decadal population growth rate for the district was 11.23 percent. The population density of the district, at 717 persons per sq.km, is higher than state average of 573 persons per sq.km⁸².

While the adult gender ratio has increased from 868 females per 1000 males in 2001 to 885 females per 1000 males in 2011, there has been an increase in the child (0-6 age group) gender ratio from 781 females per 1000 males in 2001, to 810 females per 1000 males in 2011⁸³.

The reserved categories population in the district is significant, occupying a share of 25.09 percent of total population⁸⁴.

18.1.2.2. Literacy

The district has a literacy rate of 81.75 percent in comparison to state average of 75.55 percent⁸⁵. Further, gender disparity in education attainment levels is prominent with a low female literacy rate of 75.5 percent as compared to the male literacy rate of 87.34 percent.

Ambala has around 3655 K12 schools with a 97.24 percent⁸⁶ share of Government schools. Low private participation is attributed to low income levels of district population.

Dropout ratio at both primary and upper primary levels is a key concern for the district. Ambala district has a high proportion of school dropouts - highlighting a need to strengthen efforts towards mass education, especially in reserved communities.

Number of Schools per Thousand School Going Children in Ambala Benchmarked against the State

⁸⁰Haryana State Statistical Abstract 2011-12

⁸¹http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

⁸²http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

⁸³http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

⁸⁴http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

⁸⁵http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

⁸⁶<http://www.dise.in/drc.htm>

Region	Primary Level	Middle Level	Secondary Level
Ambala	8	3	2
Haryana	7	8	3

Number of recognized schools and student enrolments in Ambala

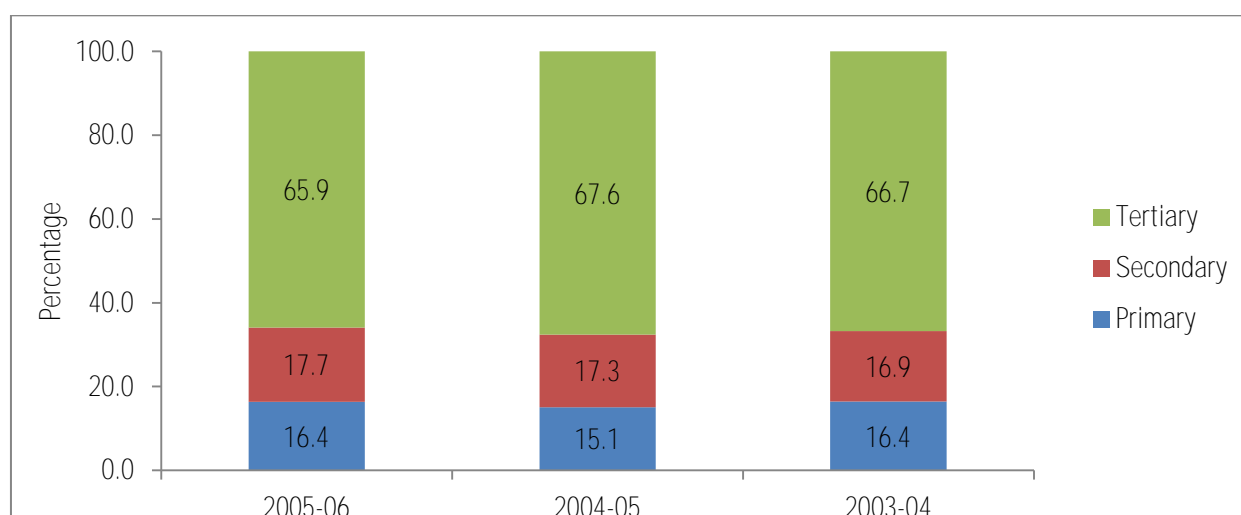
Region	Primary Level	Middle Level	Secondary Level
Number of schools	720	214	280
Number of scholars	115576	36983	55525

Source: Haryana Statistical Abstract 2011-12

18.1.3. District Economy

The contribution of Ambala to overall state economy is higher than the expected share on population pro-rata basis - as evident from per capita income of INR 49,672, in comparison to state average of INR 47,024 in 2005-06 (At current prices). The contribution of services sector is highest among sub-sectors in the district, while dependency on agriculture is low in terms of number of people engaged in these activities.

Sub-Sector wise GDDP break up for Ambala District



Source: Planning Commission, State Wise District Domestic Product (Data)

18.1.3.1. Agriculture and allied sectors

Agriculture and Allied activities is a key source of livelihood for the population of Ambala. Around 84 percent of total geographical area in the district can be cultivated⁸⁷. Situated in the trans Gangetic plain region, Ambala witnesses rain fall of 834.5 mm annually, which supplements irrigation facilities in the district.

Cropping intensity in the district is very high at 184.91 percent⁸⁸, owing to well developed irrigation facilities and the presence of three rivers, Markanda, Ghagghar and the Dangri. Ambala receives 30 percent of its rainfall during monsoon months⁸⁹.

Rice, cotton, sugarcane and maize are key agricultural crops in the district. Rapeseed, mustard, gram and barley are major crops in the region. The north western part is suitable for rice, wheat, vegetable and temperate fruits and the south western part are suitable for high quality agricultural produce, tropical fruits, exotic vegetables and herbal and medicinal plants.

Forest area accounts for 3.3 percent of the total geographic area, making it a limited source of livelihood. Animal husbandry is prominent in the district, with 2, 23,347 buffaloes and 60,835 cows.

18.1.3.2 Industry

Industry is well developed in Ambala district. The main industrial growth centre is in Saha which is 415 acres. There is also a food park in 70 acres land. Metal based industries are a significant source of employment in the district, much more than even agro based and leather goods industries.

As per 2011 data, there are 3536 registered industrial units in the district employing around 26163 persons on a daily basis. Among large scale industries, Naraingarh Sugar Mills, Partap extractions and Swastika Agro Oils are some of the most important industries.

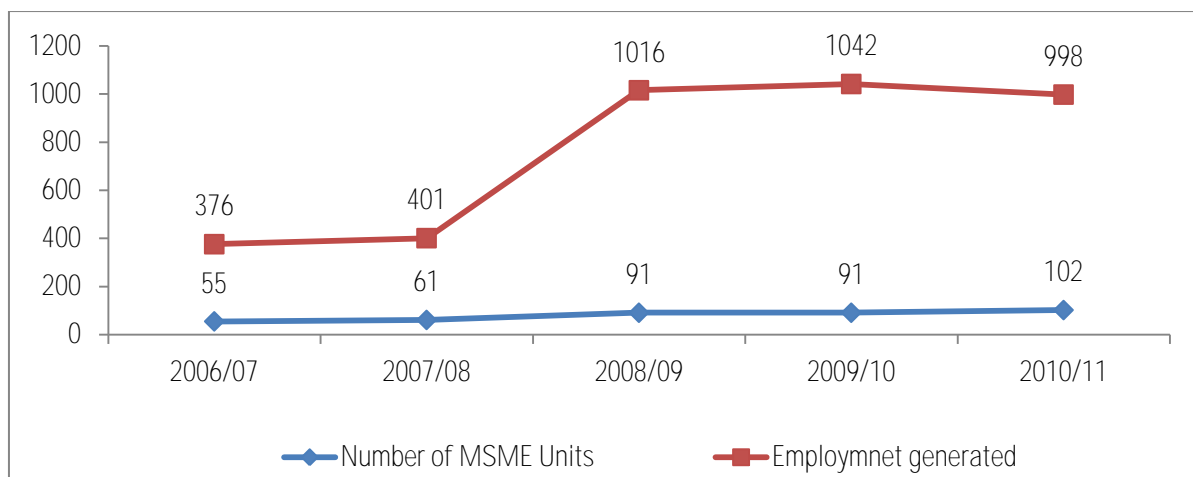
Between 2006-07 and 2011-12, Medium-Small Scale Industries segment has witnessed growth of 41 units generating additional employment of over 3457 during the period.

MSME growth trends in Ambala district

⁸⁷ <http://www.agriharyana.nic.in/>

⁸⁸ Directorate of Agriculture, Govt of Haryana

⁸⁹ KPMG Analysis



Source: Brief Industrial Profile MSME, Ambala District

Ambala is a hub of scientific instruments with more than 800 units engaged in business. This industry employs more than 4000 skilled and semi-skilled people in using more than 50 types of different raw material to manufacture more than 20,000 different types of instruments.

Ambala exports 20 percent of total scientific instruments manufactured in the country which makes it a hub. Annual turnover of the industry is approx 800 crore and 200 crore would be export component. Barometer used for measuring pressure was first manufactured in Ambala which shows the kind of potential this industry has.

Based on discussions with District Industries Center, following potential MSME growth clusters are identified in Ambala district

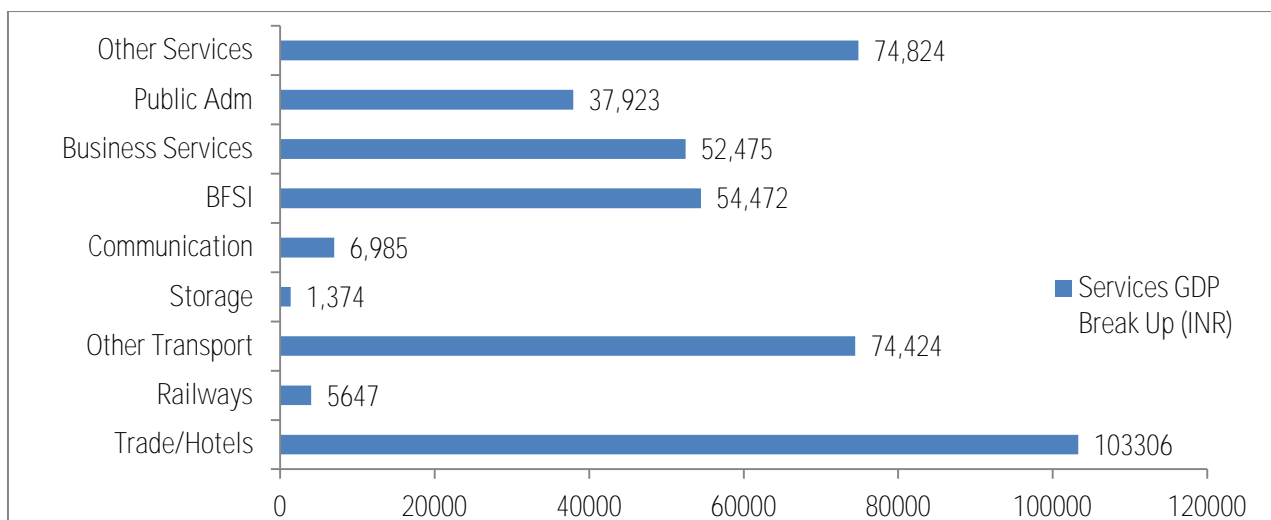
Existing Clusters	Clusters Identified for Promotion
<ul style="list-style-type: none"> Scientific Instrument Cluster, Ambala Mixer Grinders 	-

Source: Primary Discussion with District Industries Officer Ambala, Brief Industrial Profile

18.1.3.3 Services Sector

Service sector contributed to 65.88 percent⁹⁰ of GDDP in the year 2005-06. Sector has grown at a cumulative rate of 9 percent in the period between 2001-02 and 2006-07. Trade and hospitality and banking and insurance are key services activities in Ambala.

⁹⁰Planning Commission, State Wise District Domestic Product (Data)



Source: Planning Commission, State Wise District Domestic Product (Data)

Penetration of healthcare facilities measured in terms of number of beds per lakh population at 44 is higher than state average of 40 beds per lakh population. The district has 17 PHCs and 3 CHCs along with 100 Sub centers with limited private participation⁹¹. Considering limited availability of healthcare facilities and the decadal population growth rate, the district is expected to witness significant Government healthcare expenditure over the next decade.

Details of healthcare infrastructure in the district

Category	Number of Institutions
Allopathic Hospitals	5
Ayurvedic Institutions	15
Unani Institutions	1
Primary Health Centers (PHCs)	17
Community Health Centers (CHCs)	3
Dispensaries	7

Source: Statistical Abstract Haryana 2011-12

⁹¹<http://nrhm-mis.nic.in/UI/RHS/RHS%202011/District-wise%20Health%20Centres.pdf>

Contribution of railways to GDDP has increased at a cumulative rate of 11.12 percent from 2003 to 2006⁹². National Highway 22 runs through the district providing connectivity to Chandigarh and Himachal Pradesh as well. Total length of rail track in the district is 100.75 km⁹³. Connectivity to cities like Delhi by rail and roadways has helped human resource movement from the district for education and employment.

Ambala has high penetration of banking and financial services measured as a percentage of GDDP at 7.7 percent in comparison to the state average of 5.26 percent as per 2006-07 estimates. Number of bank branches of the district has grown by 4.1 percent CAGR between 2006 and 2011⁹⁴ with a predominant share of nationalized banks. Bank Credit has witnessed a growth of 17.75 percent CAGR and bank-deposits a 25.6 percent CAGR, in the past five years - indicating greater participation of financial institutions in overall growth of the district⁹⁵. High penetration of banking and financial services would drive significant NBFC growth over the next decade.

18.1.4. Workforce Distribution in the district

18.1.4.1 Current Employment Scenario in Ambala

Work participation rate in the district (28.75 percent) is below the state average of 38.76 percent. Industry is the major source of employment. Female work participation in the district is low in comparison to male work participation, in line with the state level trend.

Region	Main Worker Participation	Marginal Worker Participation	Overall Non-Workers	Male Non-Workers	Female Non-Workers
Ambala	24.42%	4.33%	67.3%	56.98%	10.33%
Haryana	28.66 %	10.10 %	50.36%	33.83%	16.52%

Only 29.4 percent of the total working population depends on agriculture, with a major share of agricultural Laborers. The service sector is also an important source of employment.

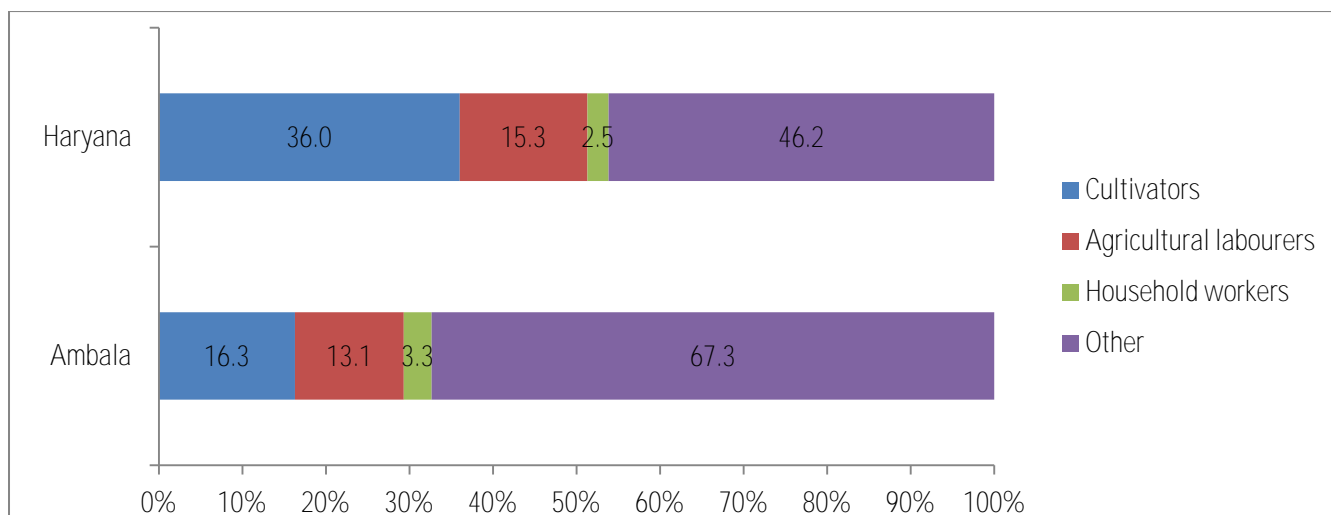
Distribution of Working Population in Ambala

⁹²<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

⁹³<http://Ambala.gov.in/>

⁹⁴<http://www.rbi.org.in/scripts/PublicationsView.aspx?id=14325>

⁹⁵<http://www.rbi.org.in/scripts/PublicationsView.aspx?id=14325>



Source: Statistical Abstract Haryana 2011-12

18.1.4.2. Estimation of Supply of Manpower in the District

District wise incremental supply of manpower estimates were arrived at, based on Planning Commission Population Estimates from 2001 population considering birth rate, death rate and life expectancy normalized against population corrections in 2011.

State/ District	Labour Force Supply (2012-17)			Labour Force Supply (2017-22)		
	Gross Addition to Working Age Population	Gross Addition to Labour Force	Net Addition to Labour Force-Supply	Gross Addition to Working Age Population	Gross Addition to Labour Force	Net Addition to Labour Force-Supply
Haryana	2,648,032	1,273,703	727,206	2,421,060	1,164,530	496,173
Ambala	117,859	57,734	32,962	107,757	52,785	22,490

Source: KPMG Analysis

18.1.4.3. Incremental Supply of Labour force in the District

District wise incremental supply estimates were arrived at based on Planning Commission Population Estimates from 2001 population considering birth rate, death rate and life expectancy normalized against population corrections in 2011.

Region	Net Supply 2012-17			Net Supply 2017-22		
	Skilled	Semi - Skilled	Minimally Skilled	Skilled	Semi-Skilled	Minimally Skilled
Ambala	8,608	4,504	19,851	5,873	3,073	13,544
Haryana	195,716	75,683	455,808	133,537	51,638	310,998

Source: KPMG Analysis

18.1.4.3. Incremental Manpower Requirement in the District

Incremental manpower requirement in the district of Ambala has been estimated based on several parameters such as investments into various sectors in the district for the past 10 years, national level benchmarks on industrial growth across sectors, national inclusion targets for sectors such as banking and healthcare, employment generation potential of various sectors based on labour elasticity and market based insights from discussions with industries in Ambala.

Sector wise skill level requirements during 2012-22 broken down into two periods of 2012-17 and 2017-22 is presented in the table.

Sub Sectors	Ambala					
	2012-17			2017-22		
	Skilled	Semi-skilled	Unskilled	Skilled	Semi-skilled	Unskilled
Agriculture & Allied Activities	-	-	(994)	-	-	(977)
Banking and Financial Services	847	2,542	-	867	2,602	-
Chemical & Chemical Products	33	133	167	38	152	191
Communication	782	2,346	-	795	2,386	-
Construction	1,871	3,743	31,813	1,666	3,332	28,323
Construction Based Material	82	327	408	100	398	498
Education and Training	220	1,482	-	37	249	-

Fabricated metal products	134	536	669	178	712	890
Food Processing	67	259	377	146	568	828
Healthcare	856	3,424	-	823	3,293	-
Hospitality	140	210	1,051	126	189	946
Retail	5,132	5,132	41,055	4,597	4,597	36,776
Scientific Instruments	135	541	677	147	589	737
Transportations and Logistics	542	8,610	10,244	671	10,661	12,684
Total	10,904	29,534	85,779	10,268	30,032	81,272

Skill requirements in key growth sectors have been analyzed based on industry interactions to understand the detailed manpower needs. Sector level skill interventions are indicated in the section below⁹⁶.

- Cultivation

Category of Skills	Skills
Core Skills	Awareness about high yield varieties, micro nutrients and pest Control, Organic farming and Vermi compost methods, Micro irrigation techniques
Allied Skills	Knowledge on food processing techniques and related procedures to extract greater value from farm produce
Skills with acute shortage	Usage and repair of farm equipments, Marketing and management practice

- Scientific Instruments

Category of Skills	Skills
--------------------	--------

⁹⁶ KPMG Analysis

Core Skills	Machine Operators, Turner, Welding
Allied Skills	Electrician and Wireman
Skills with acute shortage	Export, quality and testing lab including CFC

- Banking and Financial

Category of Skills	Skills
Core Skills	Knowledge on core banking/mobile/internet platforms
Allied Skills	Sales and Marketing
Skills with acute shortage	Insurance underwriting, claims management

- Transportation and Logistics

Category of Skills	Skills
Core Skills	Heavy vehicle drivers, logistics management
Allied Skills	Administrative, computer data management
Skills with acute shortage	Scheduling and logistics planning

- Construction

Category of Skills	Skills
Core Skills	Electricians, carpenters, barbenders, welders and masons
Allied Skills	Minimally skilled workers
Skills with acute shortage	Machine Operators

- Organized Retail

Category of Skills	Skills
--------------------	--------

Core Skills	Shop floor executives/supervisors, computer operator
Allied Skills	Transportation and Logistics staff
Skills with acute shortage	Store management and stock planning

18.1.5. Human Resource Development in the District

18.1.5.1. Current State of Workforce Development

Ambala has relatively average penetration of higher education compared to the rest of the state.

Comparison of higher education infrastructure in Ambala with Haryana

Category of College	Haryana	Ambala
Arts	42	13
Bed	456	13
Physical Education	1	1
Law	11	-
Engineering & Technology	147	11
Other	30	-
Total	687	38
Density(Colleges per Thousand Population)	0.02	0.03

Source: Statistical Abstract Haryana 2011-12

The district has 11 ITIs with an overall capacity of 2840. Details of vocational education infrastructure in Ambala is presented in the table.

District Wise ITI Infrastructure (2011)							
Region	Number			Strength			Density(Seats per Thousand Population)
	Govt ITI	Private ITI	Total	Govt ITI	Private ITI	Total	

Haryana	131	94	225	39140	12804	51944	2.05
Ambala	6	5	11	2360	480	2840	2.51

ITI Ambala offers 25 courses including Book binder, carpenter, COPA, draughtsman mechanical, electrician, electronics mechanic, fitter, ITESM, Litho Offset Machine minder, Machinist, Mechanic diesel, Foundryman, painter, pattern maker, retailing, plumber, turner and wireman. It offers a CoE on instrumentation as well. The other ITIs offer a subset of these courses.

18.1.5.2. Youth Interaction outcomes

The youth in the district exhibited a high preference towards employment over entrepreneurship. Several factors such as poor financial capacity, work environment and socio-cultural factors influenced youth preferences towards employment.

There was a strong inclination towards government jobs over private jobs. Within private industry, students exhibited high preference branded manufacturing companies due to perception of better job conditions.

Youth were open to migrating to nearby districts like Gurgaon, Manesar and Faridabad for relevant jobs. However, low level entry salaries remained a key challenge for mobility. The minimum salary expectation for mobility was highlighted as INR 7,000-8,000 per month.

ITI's were seen more as a means for certification rather than real value add in terms of learning job skills. The choice of curriculum and ITI was largely linked to the placement results.

Source: Primary Discussion with local youth, ITI student and village sarpanchs

18.1.5.3. Other Skill Mapping and Developmental Concerns

Ambala is leading producer in India of scientific instrument which include glass apparatus, microscopes, laboratory equipment etc. Ambala is also major producer of electrical instrument and agricultural equipment. Skilled labour is the major issue that most companies raised.

Most manufacturers are not keen to invest in better design since they feel that their workers, who also work part time for other manufacturers, will give away the know-how to others for small inducements. Marketing is the weak link of most manufacturers. The amount of staff employed for marketing was minimal.

Mixer grinders, Carpets and Engineering goods are important items exported and supplied to the other parts of the country from the district. Some known companies in the area are RA instruments, Oxford instruments and equipments, Starlac industries, Acculab industries etc.

The industry also opined that the youth in the district lack basic soft skills and professional conduct amongst local youth remained a major challenge.

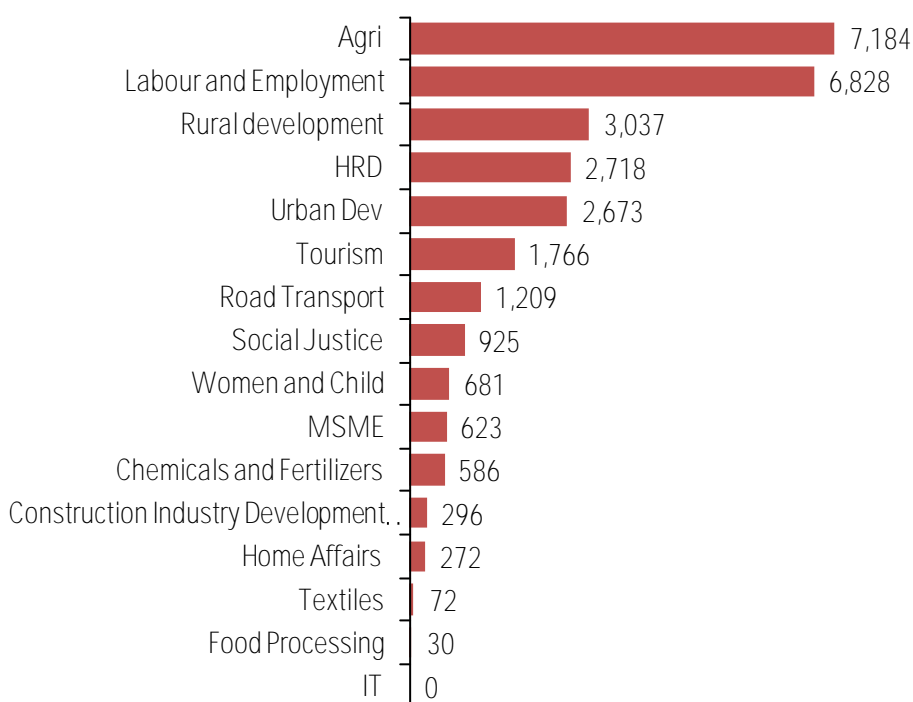
The potential areas for service industry identified within the district were Repair & service of automobile, electronic & electric gadgets / appliances, hotels, banquets, marriages places, information technology & computer service etc.

Source: Primary Discussion with industry representatives, ITI Principal and Teachers

18.1.5.4. Incremental Training Capacity through Government Endowments

According to KPMG estimates, based on the potential district budgetary allocation for various central government schemes, around 29 thousand people in total can be trained incrementally during the five year period of 2012-17. Ministry of Agriculture has significant training mandates in the district.

Potential Training Capacity through in Government Endowments (2012-17)



Source: KPMG Analysis, Training Plans as per various Ministries/ Departments / Organizations

18.1.6. District Specific Recommendations

Stakeholder	Action Points
NSDC	<p>Creating a favorable and positive skill environment in the district</p> <p>A majority of youth in the district continue to perceive 'skill acquisition' poorly and consider enrolling in an ITI/ITC in the region as a last resort.</p> <p>Awareness campaigns about benefit of acquiring vocational education at the village level in collaboration with NGOs and Community based organizations.</p>

Identify high-performing and motivated students and provide scholarships for higher education.

Capacity Creation

Capacity creation may be undertaken in the industrialized pockets of the district for growing affiliated service sector trades such as construction, retail, BFSI, transportation and logistics. Initiatives must be focused on more on semi-skilled levels

Introduction of industry relevant skills

Ambala is a hub of surgical and scientific instruments, however relevant training skills like FCAW (Flux core arc welding), ECM (Electrochemical Machining) required by these units are missing in the district. There is also a lack of electroplating skills required by units manufacturing electroplating equipment.

Skill
Development
Training

Skill training providers in conjunction with the key associations like *The Scientific Instruments & Electrical Appliances Cluster Development Society* should identify key skills required and introduce courses accordingly.

Providers

Focus on soft skill training to students

Attitude and professional conducts remains a major challenge amongst local youth. Targeted training modules for soft skills to be developed and imparted to students Facilitate camps to address behavioural and professional issue amongst students

Information of industry labour needs

Lack of adequate industry skill requirements create issue in imparting relevant training

Industry associations / key players in the district should co-ordinate with employment exchange to publish employment requirements reports indicating clear skill requirements for the various job opportunities

Industry

Periodical interaction with local skill development training providers to communicate any updates in skill requirements.

Support teacher training initiatives

Industry should conduct teacher training programs from faculty from local institutes with an aim to improve quality of training delivery and relevance of pedagogy to industry

District	Facilitate women participation in skill development
Administration	Facilitate formation of SHG's which will involve more women with an aim to empower

18.2 Skill Gap Assessment of Bhiwani District

18.2.1. Administrative Profile

The Bhiwani district was carved out on 22 December 1972. It is surrounded by Hisar District on its North, Rajasthan on its west, Mahendergarh and Jhunjunu district on its south and district Rohtak on east.

Bhiwani is largest district of Haryana in terms of geographical area. The area of district is 4,778 sq km, which accounts for 10.8 percent of the total share of state area⁹⁷.

Administratively, the district has been divided into five sub divisions (Bhiwani, Tosham, Dadri, Loharu and Siwani); seven tehsils (Bhiwani, Bawani Khera, Tosham, Dadri, Loharu, Siwani and Badhra) and ten blocks (Bhadra, Bawani Khera, Bhiwani, Dadri, Bond Kalan, Loharu, Tosham, Kairu, Siwani and Bahal).

18.2.2. Social Profile

18.2.2.1 Demographics

As per Census 2011, Bhiwani has a population of 16.34 lakhs, contributing to 6.4 percent of the total state population. The district population has grown at a decadal growth rate of 14.70 percent in the period of 2001-11

An overwhelming majority of the population in the district is rural in nature, 80.17 percent⁹⁸. The population density of the district standing at 342 persons per sq.km, is much below than the state average of 573 persons per sq.km⁹⁹.

The child gender ratio of Bhiwani is low and has been declining since the last decade. The child gender ratio fell from 841 females per 1000 males in 2001 to 831 females per 1000 males in 2011. However, the adult gender ratio fares better in the district and has improved from 879 females per 1000 males in 2001, to 884 females per 1000 males in 2011¹⁰⁰. The adult gender ratio of the district is better than the state average of 877 females per 1000 males.

The scheduled caste population in the district is 19.66 percent of total population which is marginally than the state average of 19.35 percent¹⁰¹. There are no Scheduled Tribes in Bhiwani district.

18.2.2.2 Literacy

The district literacy rate of 75.21 percent (up from 67.45 percent in 2001) is lower than the state average of 75.55 percent¹⁰². Further, the gender disparity in education attainment levels is also prominent with a low female literacy rate of 63.54 percent when compared to the male literacy rate of 85.65 percent¹⁰³.

The school infrastructure in Bhiwani is better than the state average, specifically at the middle school level.

⁹⁷Haryana State Statistical Abstract 2011-12

⁹⁸http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

⁹⁹http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

¹⁰⁰http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

¹⁰¹http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

¹⁰²http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

¹⁰³[http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

Number of Schools per Thousand School Going Children in Bhiwani benchmarked against that of Haryana

Region	Primary Level	Middle Level	Secondary Level
Bhiwani	6	13	3
Haryana	7	8	3

Source: Haryana Statistical Abstract 2011-12

Number of recognized schools and student enrolments in Bhiwani

Region	Primary Level	Middle Level	Secondary Level
Number of schools	1,080	226	622
Number of scholars	44,742	54,974	2,50,945

Source: Haryana Statistical Abstract 2011-12

18.2.3 District Economy

The contribution of Bhiwani to overall state economy is below average, based on population pro-rata. Bhiwani has a per capita income of INR 25,196 in comparison to state average of INR 32,712 in 2004-05 (At current prices)¹⁰⁴.

The district is primarily an agrarian economy, with presence of few small and medium sized industries. A large number of rural youth are also employed in the armed forces. The contribution of the primary sector towards the district economy is highest, followed by tertiary and finally secondary sector.

Sub-Sector wise GDDP break up for Bhiwani District



¹⁰⁴ <http://planningcommission.nic.in/plans/stateplan/ssphd/ddpdata/Haryana/Haryana%202004-2005.pdf>

18.2.3.1 Source: Planning Commission, State Wise District Domestic Product (Data) Agriculture and Allied sectors

Bhiwani is primarily an agrarian economy. Agriculture employs a majority of the working population. According to the census of 2001, 63.90 percent of the working population is employed in agriculture, up from 58.10 percent in 1991¹⁰⁵. In the year 2004-05, agriculture contributed to 37.32 percent of the district GDP, compared to 24.39 percent share of agriculture at state level.

Bhiwani has a relatively high number of large land holdings. The average size of land holdings in Bhiwani at 3.05 hectares is second only to Hisar in the state¹⁰⁶.

Composition of the land holding in the district benchmarked against the same for the overall state

Region	Below 1 Hectares	1-3 Hectares	3-5 Hectares	5-10 Hectares	Larger than 10 Hectares
Bhiwani	52924	44942	18982	15030	7224
Haryana	7,78,142	4,89,777	1,79,665	1,23,898	45,829

Source: Haryana Statistical Abstract 2011-12.

Agriculture is the backbone of the district, as there are few industries to provide rural as well as urban employment. The major field crops cultivated in Kharif season are pearl millet, cluster bean and cotton. The major crops grown in Rabi season are mustard, wheat, chick pea and barley. The Citrus, Guava, Ber and Aonla are the best suited horticultural crops to the agro-climatic conditions of the district. Some vegetable crops namely tomato, cucurbits, carrot, bhindi, cauliflower, chilly, radish, Brinjal, pea, leafy vegetables, onion & garlic etc are also grown in the district.

The land in the district is sandy and alkaline. After the introduction of sprinkler irrigation system, the irrigation for the uneven fields became simpler and the district made remarkable progress in agriculture production. Yet, the productivity of the crops is below the state average. Therefore, there is scope to improve the agricultural growth of the district with adoption of proper water management and expansion of net sown area under dry land horticultural crops and vegetables along with drip irrigation system.

With increasing cropping intensity, the demand for farm implements mainly for soil tilling, sowing, threshing, zero-tilling, harvesting etc is increasing. However, the manufacturing units of farm machinery and implements present in the district are not adequate.

Fruits are grown in area covering 125 hectares. The major vegetable crops are grown in an area of 5344 hectares with total production of 64767 MT during 2006-07¹⁰⁷.

Irrigation is a major concern for farmers in Bhiwani with only 54.4 percent of the net sown area irrigated, as against the average for Haryana being 82.1 % percent¹⁰⁸.

¹⁰⁵ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

¹⁰⁶ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

¹⁰⁷ http://hau.ernet.in/extension/Bhiwani_cdap.pdf

¹⁰⁸ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

The fish cultivation in Bhiwani district is done mainly in Gram Panchayat Tanks, spread over an area of 719.98 hectares. The total fish production in the district during 2006-07 was 2483 tonnes¹⁰⁹.

Dairying is one of the most important allied activities in Bhiwani. The area of Rohtak/ Sonipat/ Mahendragarh/ Rewari/ Bhiwani/ Jhajjar procures 422.42 lakh litres of milk, which is the highest in the state. The region also has a milk plant with a capacity of 2.5 lakh litres per day and 4 milk chilling centre with a capacity of .7 lakh litres per day¹¹⁰.

Mining is an important activity in the district. Limestone, quartz/silica, copper, tungsten and tin are the key minerals mined in the district.

18.2.3.2 Industry

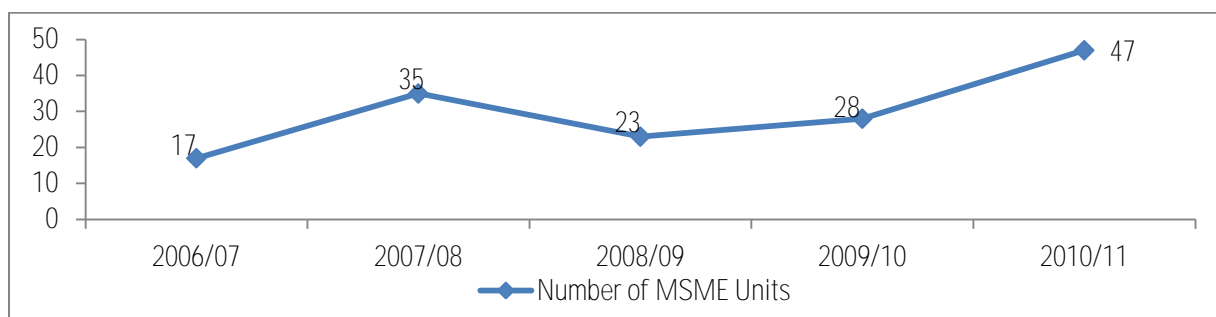
There has been limited development of industries in the Bhiwani district. The district has only a handful of large scale industries; however there are a large number of small scale industries. Among small scale Industries, leather based, wood based, repairing service, rubber based, electrical machinery and mineral based industries have the highest investment and employ the maximum number of people.

As per 2011 provisional data, there are 2250 registered Industrial Units in the district employing 7460 workers, in the small scale industries segment. They key small scale industries from employment perspective are Plastic, Stone Crusher, Wire Drawing and Agro Based and Agro Implements, contributing to 50 per cent of total employees in the sector. Further, Plastics and Stone Crusher alone accounts for 40 percent of the total employees.

There are only 5 medium and large scale units present in Bhiwani. They industrial segment constitutes of Guar Gum, PV Blended Fabric and Yarn. Together, these units constitute of less 1,500 of employment in the district.

Between 2006-07 and 2011-12, Medium-Small Scale Industries segment has witnessed relatively better growth generating additional employment during the period.

MSME growth trends in Bhiwani district



Source: Development Commissioner Ministry of Micro, Small and Medium Enterprises, Bhiwani Profile

While, there are multiple industries in areas on non woven fabrics, monofilament yarn, niwar cloth, Tape, PP Filament Yarn etc, there has been limited interest from local industries to be part of industrial clusters. It was also observed that

¹⁰⁹ http://hau.ernet.in/extension/Bhiwani_cdap.pdf

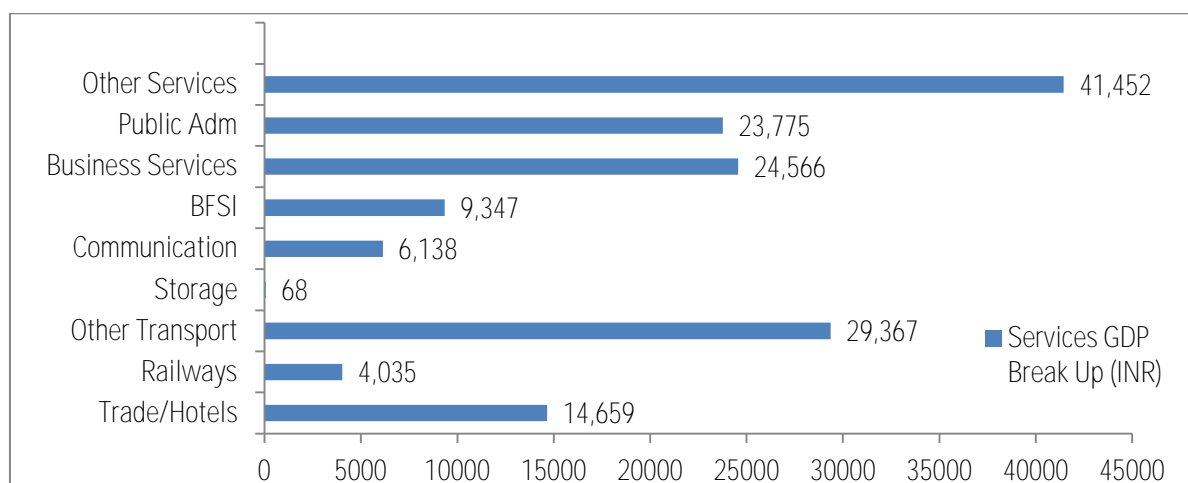
¹¹⁰ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

there was limited push from the industries department to identify and promote clusters. The district has the potential to set up clusters for Guar Gum, Non- Woven Fabric, Plastic Tape and Hospital Equipments¹¹¹.

18.2.3.3 Services Sector

The contribution of service sector to the state GDP was 35.13 percent¹¹² in the year 2005-06. The sector has grown at a cumulative rate of 11.12 percent in the period between 2001-02 and 2005-06. Trade/Hotels, public administration, transport and business services are key services activities in Bhiwani.

Sub-sector wise contribution of services income (2005-06)



Source: Planning Commission, State wise District Domestic Product Reports

The penetration of healthcare facilities measured in terms of patients treated per bed, at 1,027 per bed is much better higher than the state average of 1522 per bed¹¹³. The district has 42 PHCs and 9 CHCs along with 214 Sub centers with limited private participation¹¹⁴. With an ever increasing population and fast paced industrial growth the district is expected to witness significant healthcare expenditure over the next decade.

Details of healthcare infrastructure in the district

Category	Number of Institutions
Allopathic Hospitals	8
Ayurvedic Institutions	46
Unani/Homeopathic Institutions	-
Primary Health Centers (PHCs)	42

¹¹¹Primary Discussion with District Industries Officer

¹¹²<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

¹¹³ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

¹¹⁴<http://nrhm-mis.nic.in/UI/RHS/RHS%202011/District-wise%20Health%20Centres.pdf>

Community Health Centers (CHCs)	9
Dispensaries	16
Total	121

Source: Haryana Statistical Abstract 2011-12

The district has a poor penetration of banking and financial services measured as a percentage of GDDP at 2.42 percent in comparison to state average of 4.16 percent as per 2004-05 estimates. The Credit Deposit ratio for Bhiwani is 70.15 percent as against 102.10 percent for the state of Haryana¹¹⁵. There are 46 commercial banks, 22 co operative and 44¹¹⁶ rural banks in Bhiwani.

18.2.4. Workforce Distribution in the district

18.2.4.1. Current Employment Scenario in Bhiwani

The main worker participation rate of 29.84 percent in the district is higher than the state average of 28.66 percent¹¹⁷. The low participation rate is a concern for the industry. Agriculture is the major source of livelihood with about 65 percent of the total work force employed in agriculture, compared to 51.29 percent average for the state of Haryana. Female work participation in the district is low in comparison to male work participation; only 38.59 percent of the total working population is female.

Region	Main Worker Participation	Marginal Worker Participation	Overall Non-Workers	Rural Non-Workers	Urban Non-Workers
Bhiwani	29.84 %	12.92 %	50.07 %	38.52 %	11.55 %
Haryana	28.66 %	10.10 %	50.36 %	33.83 %	16.52 %

Source: Haryana Statistical Abstract 2011-12

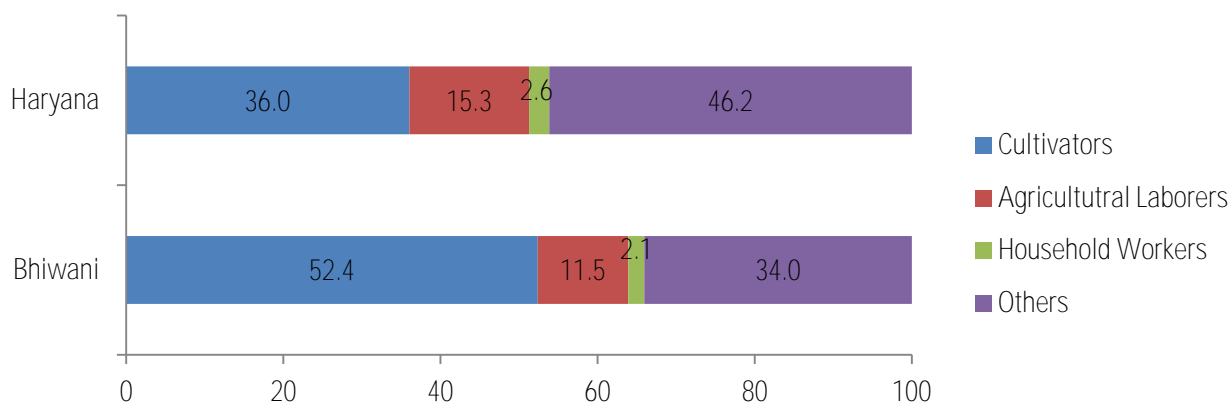
The high rate of marginal worker participation compared to other parts of Haryana, indicates high share of seasonal and the disguised unemployment in the district.

Distribution of Working Population in Bhiwani

¹¹⁵ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

¹¹⁶ http://dcmsme.gov.in/dips/har_bhiwani.pdf

¹¹⁷ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)



Source: Haryana Statistical Abstract 2011-12

18.2.4.2. Estimation of supply of manpower in the District

District wise skill incremental supply estimates were arrived considering the district level participation rates based on census 2001 data along with LFPR, WPR from NSSO 66th Round Employment Survey, by apportioning participation rates on a pro rata basis.

State/ District	Labour Force Supply (2012-17)			Labour Force Supply (2017-22)		
	Gross Addition to Working Age Population	Gross Addition to Labour Force	Net Addition to Labour Force-Supply	Gross Addition to Working Age Population	Gross Addition to Labour Force	Net Addition to Labour Force-Supply
Haryana	2,648,032	1,273,703	727,206	2,421,060	1,164,530	496,173
Bhiwani	170,722	76,476	43,663	156,089	69,921	29,791

Source: KPMG Analysis

18.1.4.4. Incremental Supply of Labour force in the District

District wise incremental supply estimates were arrived at based on Planning Commission Population Estimates from 2001 population considering birth rate, death rate and life expectancy normalized against population corrections in 2011.

Region	Supply 2012-17	Supply 2017-22
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	Skilled	Semi - Skilled	Minimally Skilled	Skilled	Semi-Skilled	Minimally Skilled
Bhiwani	11,100	4,114	28,450	7,573	2,807	19,411
Haryana	195,716	75,683	455,808	133,537	51,638	310,998

Source: KPMG Analysis

18.2.4.3 Incremental Manpower Requirement in the District

Incremental manpower requirement in the district of district has been estimated based on several parameters such as investments into various sectors in the district for the past 10 years, national level benchmarks on industrial growth across sectors, national inclusion targets for sectors such as banking and healthcare, employment generation potential of various sectors based on labour elasticity and market based insights from discussions with industries in district.

Sector wise skill level requirements during 2012-22

Sub Sectors	Bhiwani					
	2012-17			2017-22		
	Skilled	Semi-skilled	Unskilled	Skilled	Semi-skilled	Unskilled
Agriculture & Allied Activities	-	-	(5,084)	-	-	(4,997)
Banking and Financial Services	454	1,361	-	465	1,394	-
Communication	1,279	3,836	-	1,301	3,902	-
Construction	1,157	2,313	19,662	1,030	2,059	17,505
Construction Based Material	63	253	316	74	297	371
Education and Training	60	402	-	83	560	-
Guar Gum	14	57	71	21	86	107
Healthcare	1,034	4,135	-	982	3,928	-
Hospitality	36	54	272	33	49	245
Retail	1,470	1,470	11,763	1,317	1,317	10,537
Textiles	104	414	518	131	525	656
Transportations and Logistics	446	7,087	8,431	553	8,775	10,440

Total	6,167	21,583	36,209	6,046	23,118	35,158
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Please note that only the industries with significant manpower demand have been individually highlighted in the table.
Source: KPMG Analysis

Skill requirements in key growth sectors have been analyzed based on industry interactions to understand the detailed manpower needs. Sector level skill interventions are indicated in the section below¹¹⁸.

- Transportation and Logistics

Category of Skills	Skills
Core Skills	Heavy vehicle drivers, logistics management
Allied Skills	Administrative, computer data management
Skills with acute shortage	Scheduling and logistics planning

- Healthcare

Category of Skills	Skills
Core Skills	MBBS Doctors, MD/MS specialists, Physician Assistants/Compounders, Radiologists, Dialysis technician, Respiratory technician and OT Assistants & Perfusionist
Allied Skills	Lab Technician and Pharmacist
Skills with acute shortage	Physiotherapists, Biomedical Instrumentation technicians

- Construction

Category of Skills	Skills
Core Skills	Electricians, carpenters, barbers, welders and masons
Allied Skills	Minimally skilled workers
Skills with acute shortage	Machine Operators

¹¹⁸ KPMG Analysis

- Organized Retail

Category of Skills	Skills
Core Skills	Shop floor executives/supervisors, computer operator
Allied Skills	Transportation and Logistics staff
Skills with acute shortage	Store management and stock planning

- Textiles

Category of Skills	Skills
Core Skills	Braiding Machine Operators, CAD Cam Operators, Ring frame operator, Weaver, Plotters, Processing operator (CDR,BDR,Stuntor), Bar-coding machine operator,
Allied Skills	Electrician, Wireman, Fitter, Transportation and Logistics
Skills with acute shortage	Braiding Machine Operators, CAD CAM Operators, Due to high attrition in operator roles (semi skilled) owing to extreme working conditions industry has high attrition in these roles.

- Guar Gum

Category of Skills	Skills
Core Skills	Machine Operator, Bar Code Operators, Processing Operator , Fork Lift Operators , Plant Supervisor, Packaging Supervisor
Allied Skills	Electrician, Wireman, Fitter, Transportation and Logistics
Skills with acute shortage	Machine Operators

18.2.5 Human Resource Development in the District

18.2.5.1 Current State of Workforce Development

Bhiwani is home to one of the best textile institutes in the country, Technological Institute of Textile and Sciences is located here it ranks among the best textile institutes in India.

Overall, the penetration of higher education in Bhiwani is considerably lower than the state average.

Comparison of higher education infrastructure in Bhiwani with Haryana

Category of College	Haryana	Bhiwani
Arts, Science and Commerce	192	13
Engineering/Technology/Architecture	168	4
Medical (Allopathy/Dentistry/Homeopathy)	27	-
Education/Teacher training	472	32
Law	11	-
Others	17	-
Total	887	49
Density(Colleges per Thousand Population)	0.04	0.03

Source: Haryana Statistical Abstract 2011-12

The contribution of the district is low when compared to the state average in the vocational training infrastructure. Bhiwani has a total of 18 Industrial Training Institutes.

Details of vocational education infrastructure in Bhiwani

District Wise ITI/ITC Infrastructure (2011)							
Region	Number			Sanctioned Intake			Density(Seats per Thousand Population)
	Govt ITI	Private ITI	Total	Govt ITI	Private ITI	Total	
Haryana	131	94	225	39140	12804	51944	2.05
Bhiwani	12	6	18	2148	728	2876	1.77

Source: Department of Industrial training and Vocational Education, Haryana

ITI Bhiwani offers wide spectrum of 22 courses including Carpentry, COPA, Draughtsmen Civil, Dress Making, Electricians, Electronics, Fitter, Electronics Mechanic, Mechanic Motor Vehicle, Foundryman, Painter, Plumber,

Stenography Hindi, Stenography English, Welder, Turner, Mechanic Tractor, Mechanic Radio and TV, MCOECS, Litho Offset Machine Minder, Mechanic Refrigeration & Air conditioning and Sheet Metal Worker. The other ITIs offer a subset of these courses.

18.2.5.2 Youth Interaction outcomes

There was moderate awareness about career opportunities available to the students in the district of Bhiwani. The youth in the district exhibited a high preference towards employment over entrepreneurship. Several factors such as poor financial capacity, work environment and socio-cultural factors influenced youth preferences towards employment.

There was a strong inclination towards government jobs over private jobs. Within private industry, students exhibited high preference towards Tier 1 branded companies like Maruti, Honda, Asian Paints, Thumbs up, Osram etc. Since, most of these companies were located outside of Bhiwani, students were open to migrating to nearby districts like Gurgaon, Manesar and Faridabad for relevant jobs. However, low level entry salaries remained a key challenge for mobility. The minimum salary expectation for mobility was highlighted as INR 7,000-8,000 per month.

There are local job fairs held in the district, however only local companies are seen to participate in the same. Therefore, these remain of limited interest to the majority of the students.

Source: Primary Discussion with local youth, ITI student and village sarpanchs

18.2.5.3 Other Skill Mapping and Developmental Concerns

There is limited presence of large and medium scale industries in Bhiwani. Together, these units provide employment to less than 3000 people as 2012-13. Of the five large and medium scale units present in Bhiwani, four are in textile contributing to 90 per cent of the employment. However, there are no special textile focused courses being offered in the district. The core skills in textile industry like ring frame operator, weaver, processing operator and bar coding machine operator are missing in the district. There is limited interaction between ITI and these units.

Meanwhile the youth in the district have exhibited limited preference to join the local textile industry, which could be attributed to extreme work conditions.

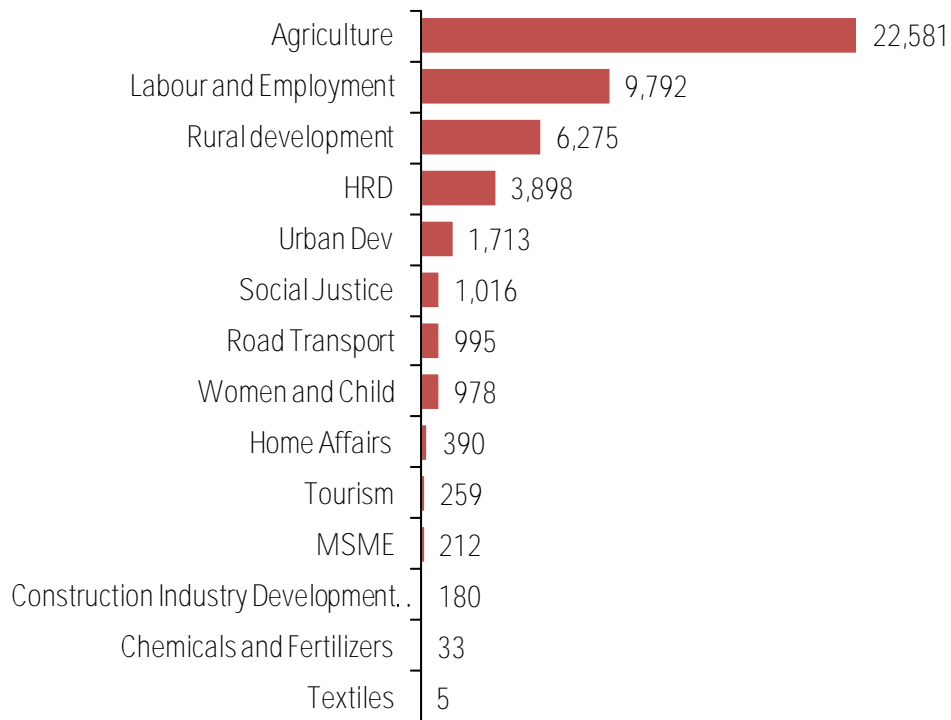
On the other hand, the small scale industries have a small employee base and lower attrition rates. Thereby, they don't experience high yearly manpower requirements and the same is met through internal employee referrals in each unit. Further, the industry opined that the ITIs are not industry ready and require a structured training for both technical and non technical skills. The students from ITI were seen to lack even basic trade related knowledge and machine handling skills. There were issues around attitude, flexibility and high salary expectations amongst local youth. However, since these **units don't have the system to support** training to address such issues and the mode of training for them largely remains as on-job training.

Source: Primary Discussion with industry representatives, ITI Principal and Teachers

18.2.5.4 Incremental Training Capacity in the District through Government Endowments

According to KPMG estimates, based on the potential district budgetary allocation for various central government schemes around 80 thousand people in total can be trained incrementally during the five year period of 2012-17. Ministry of IT and Communication has significant training mandates in the district.

Potential Training Capacity in Bhiwani during 2012-17



Source: KPMG Analysis, Training Plans as per various Ministries/ Departments / Organizations

18.2.6 District Specific Recommendations

Stakeholder	Action Points
NSDC	Creating a favorable and positive skill environment in the district
	A majority of youth in the district continue to perceive 'skill acquisition' poorly and consider enrolling in an ITI/ITC in the region as a last resort. Awareness campaigns about benefit of acquiring vocational education at the village level in collaboration with NGOs and Community based organizations. Identify high-performing and motivated students and provide scholarships for higher education.
	Align youth aspiration to local industry demand
	They key large and medium scale in the district is Textiles and Guar Gum. However, in terms of youth aspirations are Tier 1 branded corporate in Automobiles, Mechanical and FMCG industries. This mismatch remains a critical factor contributing to large skill gap in the district.
	Undertake campaigns with an aim promote local industries .Set up counselling and career guidance

	<p>camps to inform about the employment opportunities</p>
<p>Skill Development Training Providers</p>	<p>Women focused schemes and programs</p> <p>The female literacy rate in the district is 64 percent compared to 86 percent for males, necessitating the need for gender specific policies. Focus on rural and backward blocks of the district where the female education is even lower. Provide training for small scale industries such as textile, food processing etc through this mode</p> <p>Focus on soft skill training to students</p> <p>Attitude and professional conducts remains a major challenge amongst local youth. Targeted training modules for soft skills to be developed and imparted to students. Facilitate camps to address behavioural and professional issue amongst students</p> <p>Introduction of industry relevant skills with focus on placements</p> <p>Bhiwani has present of 4 large and medium scale Textile units, however core industry skills are not available locally. Relevant courses/modules aimed at textile industry like ring frame operator, weaver, processing operator and bar coding machine operator should be developed</p>
<p>Industry</p>	<p>Increase desirability of jobs in key manufacturing sector in the district</p> <p>Textile sector constitutes of the significant majority of large and scale industry in the district. However, perceptions of extreme work conditions have resulted in low preference for the industry amongst youth. Build awareness about industry, career prospects , benefits etc amongst local youth through motivational camps and job fairs. Industry heads should work on improving work conditions and ensure compliance to safety, health and welfare norms. Local industry should encourage relevant trainings to apprenticeship program with an aim to promote industry attractiveness amongst youth</p>
<p>District Administration</p>	<p>Facilitate women participation in skill development</p> <p>Facilitate formation of SHG's which will involve more women with an aim to empower</p> <p>Focus on training in agricultural products and processing</p> <p>There is a high dependence on primary sector in the district. However, most of the farmers are engaged in traditional crops and have low awareness about new crops (Fruits and vegetables) or opportunities farm mechanization. Facilitate trainings to apprise farmers about new agro and food processing opportunities, benefits of farm mechanization etc</p>

18.3 Skill Gap Assessment of Fatehabad District

18.3.1. Administrative Profile

Fatehabad was founded on 15th July, 1007. The district is located in the South Western part of Haryana. It surrounded by Hisar District in the south, Punjab in the north, Jind in the east and Rajasthan and Sirsa to the west. The area of district is 2,538 sq km, which accounts for 5.7 percent of the total share of state area¹¹⁹. It lies on an alluvial plain as part of the Indo-Gangetic basin.

Administratively, the district has been divided into three sub divisions (Fatehabad, Tohana and Ratia); three tehsils (Fatehabad, Tohana and Ratia) and six blocks (Fatehabad, Tohana, ratia, Bhattu, Bhuna and Jakhal).

18.3.2. Social Profile

18.3.2.1. Demographics

Fatehabad has a population of 9.42 lakhs as per the 2011 Census contributing to 3.72% of the total state population. The district population has grown at a decadal growth rate of 16.85 percent in the period of 2001-11.

An overwhelming majority of the population in the district is rural in nature, 80.94 percent¹²⁰. The population density of the district standing at 371 persons per sq.km, is much below than the state average of 573 persons per sq.km¹²¹.

The child gender ratio of Fatehabad is better than most other districts of Haryana and has improved a lot over the past ten years (increased from 828 females per 1000 males in 2001 to 845 females per 1000 males in 2011), the adult gender ratio also fares much better than the state average from 884 females per 1000 males in 2001, to 903 females per 1000 males in 2011¹²² this is above the state average of 877 females per 1000 males.

Scheduled caste population in the district is higher than other districts of the state, occupying a share of 27.43¹²³ percent of total population which higher compared to the state average of 19.35 %. There are no Scheduled Tribes in Fatehabad.

18.3.2.2. Literacy

The district literacy rate of 67.92 percent is one of the lowest in the state (up from 57.98 percent in 2001). It is much lower than the state average of 75.55 percent¹²⁴, gender disparity in education attainment levels is also prominent with a low female literacy rate of 58.87 percent when compared to the male literacy rate of 76.14 percent.

The school infrastructure in Fatehabad is at par with the state average, shown by the below benchmarking of Fatehabad's School infrastructure with that of the state, in terms of schools per thousand school going children.

¹¹⁹Haryana State Statistical Abstract 2011-12

¹²⁰http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

¹²¹http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

¹²²http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

¹²³http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

¹²⁴http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

In fact the district performs better than average at the middle school level.

Number of Schools per Thousand School Going Children in Fatehabad against that of Haryana

Region	Primary Level	Middle Level	Secondary Level
Fatehabad	6	10	3
Haryana	7	8	3

Number of recognized schools and student enrolments in Fatehabad

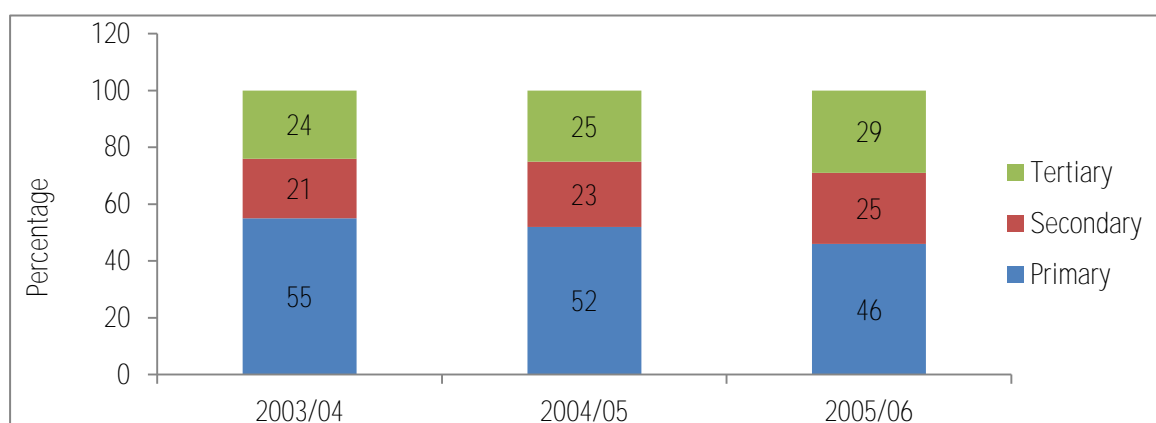
Region	Primary Level	Middle Level	Secondary Level
Number of schools	480	110	217
Number of scholars	73068	20,961	99414

Source: Haryana Statistical Abstract 2011-12

18.3.3. District Economy

The contribution of Fatehabad to overall state economy is a little greater than the average share on population pro-rata basis - as evident from higher Per Capita Income of INR 32,771¹²⁵ in comparison to state average of INR 32,712 in 2004-05 (At current prices). Fatehabad's economy is not very well developed due to its dependence on the primary sector. The contribution of the primary sector towards the district economy is high.

Sub-Sector wise GDDP break up for Fatehabad District



¹²⁵ <http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

Source: Planning Commission, State Wise District Domestic Product (Data)

18.3.3.1. Agriculture and Allied sectors

Fatehabad like many other districts in the country as well as the state is primarily an agrarian economy. Agriculture employs a majority of the working population. According to the census of 2001, a majority 67.31 percent of the working population is employed in agriculture this is down from 69.33 percent in 1991. In the year 2004-05, Agriculture contributed a major portion (50.73 percent) of the district GDP compared to 24.39 percent for the state¹²⁶.

The composition of the land holding in the district is shown below benchmarked against the same for the overall state. The average land holding size of 2.44 hectares for Fatehabad is larger than the state average of 2.25 hectares.

Composition of the land holding in the district benchmarked against the same for the overall state

Region	Below 1 Hectares	1-3 Hectares	3-5 Hectares	5-10 Hectares	Larger than 10 Hectares
Fatehabad	34,087	32,197	12,220	9,212	2,697
Haryana	7,78,142	4,89,777	1,79,665	1,23,898	45,829

Source: Haryana Statistical Abstract 2011-12

Agriculture is the backbone of the district. Fatehabad as there are no industries to provide employment to rural as well as urban people. The majority of the population is engaged in agriculture. Agro-climatically a number of crops can be grown in Fatehabad district but major portion of cultivable land is occupied by wheat, Cotton, paddy, guar, sugarcane, bajra and gram. Some other crops which can be equally profitable and easily adjusted in existing cropping pattern are being ignored by farmers on account of lack of proper knowledge, risk, uncertainty and poor yields. Irrigation in Fatehabad is above the state average with 99.6 % of the net sown area irrigated against the average for Haryana being 82.1 percent.

Dairy is an essential component of rural areas of the district. There is a long tradition of rearing dairy animals by the farmers in the district. Large percentage of landless families is also engaged in dairy rearing. There were 63,385 cows and 1,12,169 of buffaloes in the district as per latest cattle census (2007)¹²⁷

18.3.3.2. Industry

Fatehabad is not very well developed in terms of industry as a result of which most of the rural and urban population is employed in agriculture.

Among Small Scale Industries agro based, readymade garments, leather based, wood based, repairing service, rubber based and mineral based industries enjoy the highest investment and employ the maximum number of people.

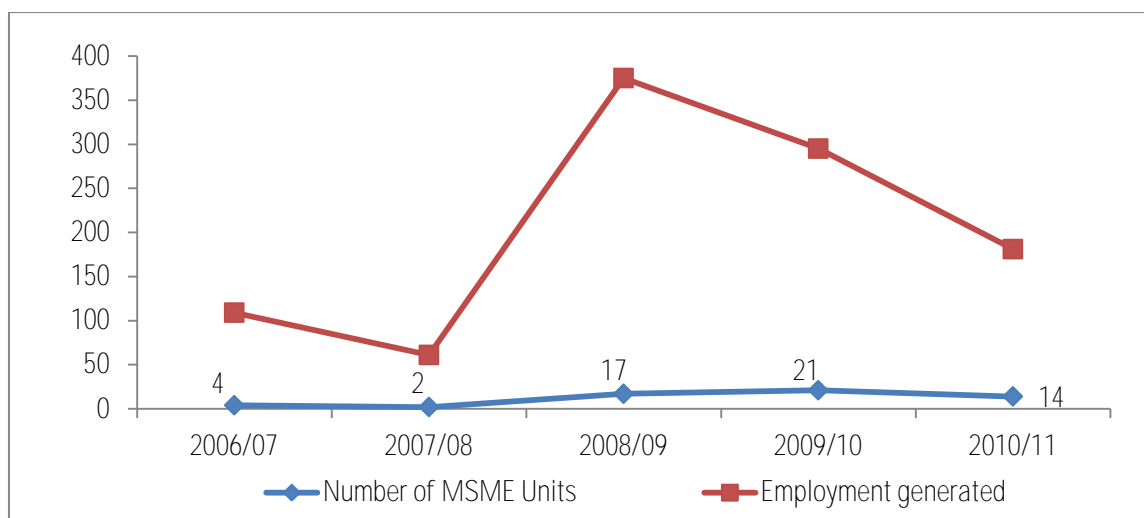
As per 2011 provisional data, there are 1125 registered Industrial Units in the district, employing 3,500 workers in the small scale industries segment and 389 workers in large and medium industries¹²⁸.

¹²⁶ <http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphbody.htm>

¹²⁷ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

Between 2006-07 and 2011-12, Medium-Small Scale Industries segment has witnessed some growth generating additional employment during the period.

Growth trends in MSME segment in the district



Source: Brief MSME Industrial Profile, Fatehabad District

Based on discussions with District Industries Center, following potential MSME growth clusters are identified in Fatehabad district.

Existing Clusters	Clusters Identified for Promotion
<ul style="list-style-type: none"> Cluster of Handloom weaver Auto Workshop , UPS Assembly 	<ul style="list-style-type: none"> Food Processing Leather Wooden

Source: Primary Discussion with DIC, Brief MSME Industrial Profile, Kaithal District

18.3.3.3. Services Sector

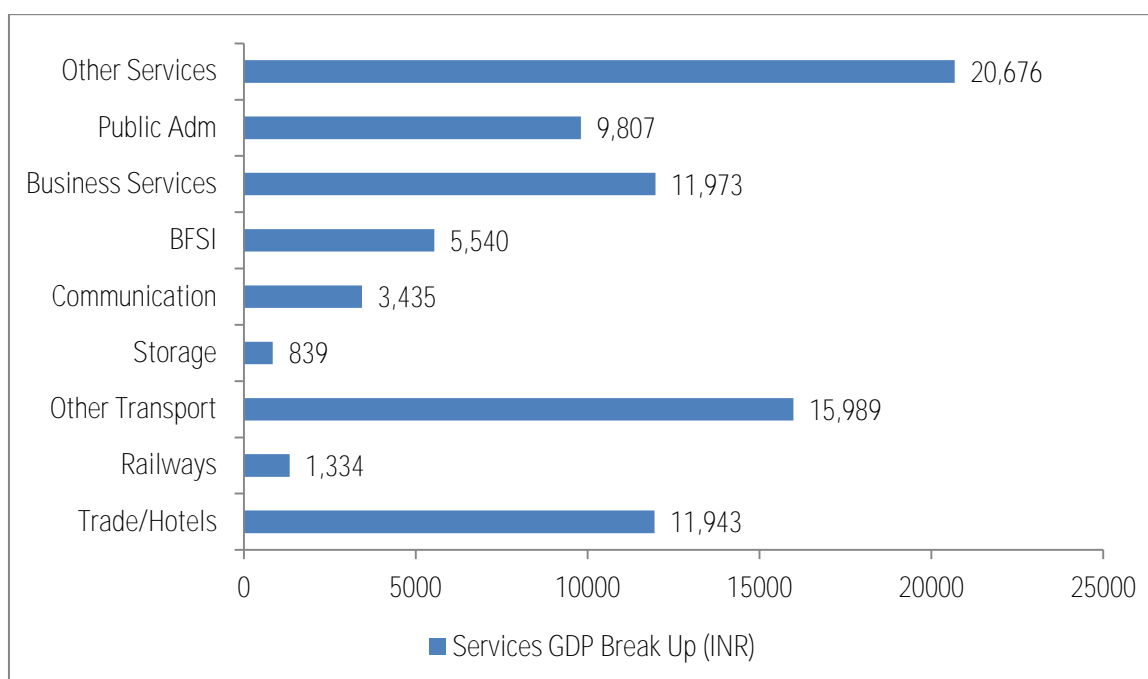
Service sector contributed 28.49 % percent¹²⁹ of GDDP in the year 2005-06. Sector has grown at a cumulative rate of 11.69 percent in the period between 2001-02 and 2005-06.

Trade/Hotels, other services, Public administration, transport and business services are key services activities in Fatehabad they enjoy a large share in the GDDP. Sub-sector wise contribution of services income is presented in the chart.

¹²⁸ <http://dcmsme.gov.in/>

¹²⁹ <http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

Sub-sector wise contribution of services income (2005-06)



Source: Planning Commission, State Wise District Domestic Product (Data)

Penetration of healthcare facilities measured in terms of patients treated per bed, at 1816 per bed is much higher than the state average of 1522 per bed. District has 16 PHCs and 4 CHCs along with 103 Sub centers with limited private participation¹³⁰. With an ever increasing population and fast paced industrial growth the district is expected to witness significant healthcare expenditure over the next decade.

Details of healthcare infrastructure in the district

Category	Number of Institutions
Allopathic Hospitals	2
Ayurvedic Institutions	20
Unani/Homeopathic Institutions	-
Primary Health Centers (PHCs)	16
Community Health Centers (CHCs)	4
Dispensaries	5

¹³⁰<http://nrhm-mis.nic.in/UI/RHS/RHS%202011/District-wise%20Health%20Centres.pdf>

Total	47
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Source: Haryana Statistical Abstract 2011-12

Fatehabad has a poor penetration of banking and financial services measured as a percentage of GDP at 1.60s percent in comparison to state average of 4.16 percent as per 2004-05 estimates. There are 75 commercial banks, 29 co operative and 21 rural banks in Fatehabad.

18.3.4. Workforce Distribution in the district

18.3.4.1. Current Employment Scenario in Fatehabad

Main Worker participation rate of 32.45 percent in the district is higher than the state average number of 28.66 percent. Agriculture is the major source of livelihood with about 67 percent of the total work force employed in agriculture compared to 51.29 percent average for the state of Haryana¹³¹. Female work participation in the district is low in comparison to male work participation, in line with the state level trend.

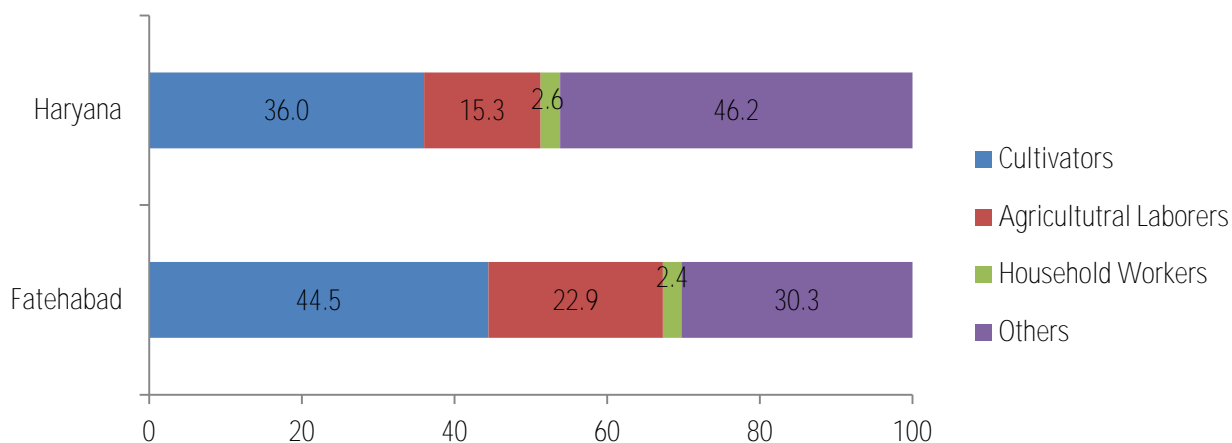
Region	Main Worker Participation	Marginal Worker Participation	Overall Non-Workers	Rural Non-Workers	Urban Non-Workers
Fatehabad	32.45 %	12.57 %	46.94%	36.64%	10.30%
Haryana	28.66 %	10.10 %	50.36%	33.83%	16.52%

Source: Haryana Statistical Abstract 2011-12

High rate of marginal worker participation shows that the nature of occupation is seasonal and the disguised unemployment is high in the district.

Distribution of Working Population in Fatehabad

¹³¹ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)



Source: Haryana Statistical Abstract 2011-12

18.1.4.5. Estimation of Supply of Manpower in the District

District wise incremental supply estimates were arrived at, based on Planning Commission Population Estimates from 2001 population considering birth rate, death rate and life expectancy normalized against population corrections in 2011.

State/ District	Labour Force Supply (2012-17)			Labour Force Supply (2017-22)		
	Gross Addition to Working Age Population	Gross Addition to Labour Force	Net Addition to Labour Force-Supply	Gross Addition to Working Age Population	Gross Addition to Labour Force	Net Addition to Labour Force-Supply
Haryana	2,648,032	1,273,703	727,206	2,421,060	1,164,530	496,173
Fatehabad	98,396	74,335	42,441	89,962	67,963	28,957

Source: KPMG Analysis

18.1.4.6. Incremental Supply of Labour force in the District

District wise incremental supply estimates were arrived at based on Planning Commission Population Estimates from 2001 population considering birth rate, death rate and life expectancy normalized against population corrections in 2011.

Region	Supply 2012-17	Supply 2017-22
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	Skilled	Semi - Skilled	Minimally Skilled	Skilled	Semi-Skilled	Minimally skilled
Fatehabad	4,530	3,076	34,834	3,091	2,099	23,768
Haryana	195,716	75,683	455,808	133,537	51,638	310,998

Source: KPMG Analysis

18.3.4.2. Incremental Manpower Requirement in the District

Incremental manpower requirement in the district of district has been estimated based on several parameters such as investments into various sectors in the district for the past 10 years, national level benchmarks on industrial growth across sectors, national inclusion targets for sectors such as banking and healthcare, employment generation potential of various sectors based on labour elasticity and market based insights from discussions with industries in district.

Sector wise skill level requirements during 2012-22

Sub Sectors	Fatehabad					
	2012-17			2017-22		
	Skilled	Semi-skilled	Unskilled	Skilled	Semi-skilled	Unskilled
Agriculture & Allied Activities	-	-	(3,116)	-	-	(3,063)
Banking and Financial Services	443	1,330	-	454	1,362	-
Communication	211	632	-	214	643	-
Construction	1,621	3,241	27,552	1,443	2,886	24,529
Construction Based Material	54	218	272	66	266	332
Education and Training	345	2,326	-	59	395	-
Food Processing	20	78	113	25	95	139
Healthcare	768	3,072	-	759	3,037	-
Hospitality	23	35	174	21	31	157
Retail	141	141	1,125	126	126	1,008
Transportations and Logistics	217	3,439	4,091	268	4,258	5,066

Total	3,865	14,599	30,329	3,454	13,175	28,269
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Please note that only the industries with significant manpower demand have been individually highlighted in the table.
Source: KPMG Analysis

Skill requirements in key growth sectors have been analyzed based on industry interactions to understand the detailed manpower needs. Sector level skill interventions are indicated in the section below¹³².

- Construction

Category of Skills	Skills
Core Skills	Electricians, carpenters, barbers, welders and masons
Allied Skills	Minimally skilled workers
Skills with acute shortage	Machine Operators

- Transportation and Logistics

Category of Skills	Skills
Core Skills	Heavy vehicle drivers, logistics management
Allied Skills	Administrative, computer data management
Skills with acute shortage	Scheduling and logistics planning

- Banking and Financial

Category of Skills	Skills
Core Skills	Knowledge on core banking/mobile/internet platforms
Allied Skills	Sales and Marketing
Skills with acute shortage	Insurance underwriting, claims management

¹³² KPMG Analysis

- Organized Retail

Category of Skills	Skills
Core Skills	Shop floor executives/supervisors, computer operator
Allied Skills	Transportation & logistics staff
Skills with acute shortage	Store management, stock planning

- Food Processing

Category of Skills	Skills
Core Skills	Fitter, Electrician, Wireman, Instrumentation, Lab Technician
Allied Skills	Instrumentation, Packaging (Jar, Pouch) Operator, AOCB, Lab Attendant, Boiler Operator, QC Chemists, STP, ETP Operators
Skills with acute shortage	Extruder, Boiler Operators, PPO is required in industries having in house packing development

- Handlooms

Category of Skills	Skills
Core Skills	Weavers, Knitters, Knotters, Embroiders
Allied Skills	Electrician
Skills with acute shortage	Lack of Sales and Marketing Professionals

- Organized Retail

Category of Skills	Skills
Core Skills	Shop floor executives/supervisors, computer operator
Allied Skills	Transportation and Logistics staff

Skills with acute shortage	Store management and stock planning
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18.3.5. Human Resource Development in the District

18.3.5.1. Current State of Workforce Development

Fatehabad is home to 1125 registered industrial units of which a majority are agro based industries¹³³. Textiles are another major industry in the district.

Overall, the penetration of higher education in Fatehabad is considerably lower than the state average.

Comparison of higher education infrastructure in Fatehabad with Haryana

Category of College	Haryana	Fatehabad
Arts, Science and Commerce	192	6
Engineering/Technology/Architecture	168	1
Medical (Allopathy/Dentistry/Homeopathy)	27	-
Education/Teacher training	472	13
Law	11	-
Others	17	-
Total	887	20
Density(Colleges per Thousand Population)	0.04	0.02

Source: Haryana Statistical Abstract 2011-12

The contribution of the district is average when compared to the state average in the vocational training infrastructure. Fatehabad has a total of 13 Industrial Training Institutes.

Details of vocational education infrastructure in Fatehabad

¹³³ Brief industrial profile of Fatehabad district, MSME. 2012

District Wise ITI/ITC Infrastructure (2011)							
Region	Number			Sanctioned Intake			Density(Seats per Thousand Population)
	Govt ITI	Private ITI	Total	Govt ITI	Private ITI	Total	
Haryana	131	94	225	39140	12804	51944	2.05
Fatehabad	3	6	9	1112	1128	2240	2.37

Source: Department of Industrial training and Vocational Education, Haryana

ITI Fatehabad offers 18 courses including carpentry, COPA, cutting and sewing, draughtsman civil, dress making, electrician, embroidery and needle work, fitter, machinist, mechanic agriculture machinery, mechanic consumer electronics, mechanic diesel, mechanic ref. & air conditioning, MCOECS, painter general, stenography Hindi, welder and wiremen. The other ITIs offer a subset of these courses.

18.3.5.2. Youth Interaction outcomes

The youth in the district exhibited a high preference towards employment over entrepreneurship. Several factors such as poor financial capacity, work environment and socio-cultural factors influenced youth preferences towards employment.

However, there are low employment opportunities within the district and the youth were open to migration, with preference towards NCR region or other districts of Haryana. However, the entry level salary expectations for mobility were on higher end of spectrum with INR 15,000 per annum.

There awareness about career opportunities amongst youth was low and the youth indicated lack of career counselling options.

Unlike most other districts, the vocational education in the district was perceived positively and more preferred option as compared to Polytechnics.

Source: Primary Discussion with local youth, ITI student and village sarpanchs

18.3.5.3. Other Skill Mapping and Developmental Concerns

The overall industrialization in Fatehabad is lower than most other districts in Haryana. There are only two large scale industries in the district Nuchem (manufacturing plywood) and HAFED (a food processing unit). Most of the industries are on small scale and are agro-based. While there is potential for food processing industry in the district, the units need to focus on markets outside of the district or even India as there limited scope for local consumption.

The district has a proposed cluster on handlooms - Durries, Khes, Chadder & Bed Sheets planned. The cluster is expected to house around 25 functional units with employment of over 300 people.

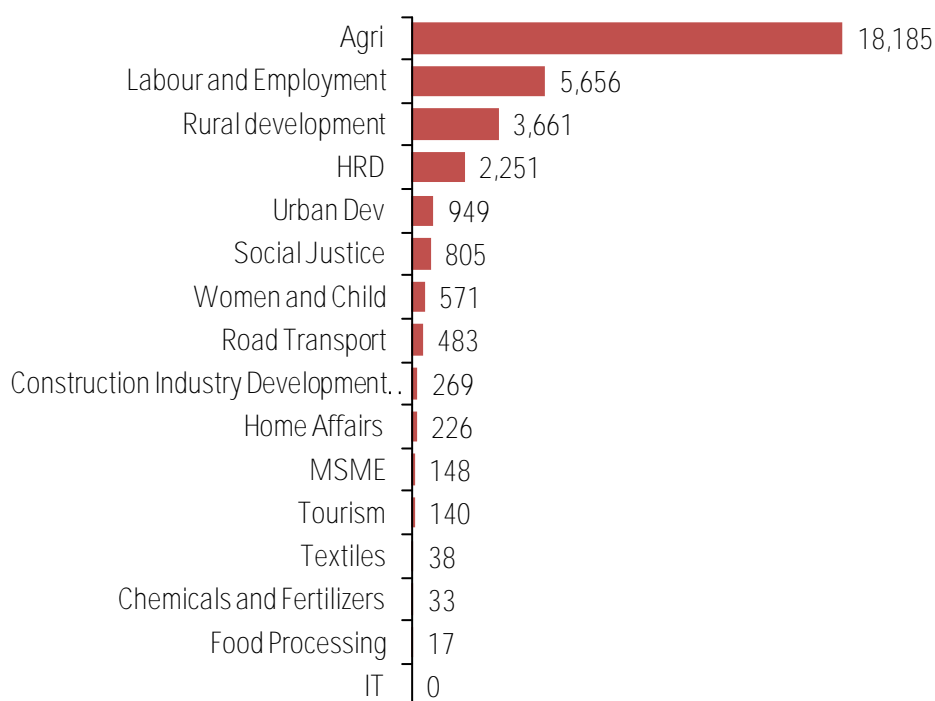
Overall, the district is not very conducive to industrialization due to lack of raw material and land shortage. However, the district has the potential to supply skilled manpower to nearby areas.

Source: Primary Discussion with industry representatives, ITI Principal and Teachers

18.3.5.4. Incremental Training Capacity in the District through Government Endowments

According to KPMG estimates, based on the potential district budgetary allocation for various central government schemes around 33 thousand people in total can be trained incrementally during the five year period of 2012-17. Ministry of Agriculture has significant training mandates in the district.

Potential Training Capacity in Fatehabad during 2012-17



Source: KPMG Analysis, Training Plans as per various Ministries/ Departments / Organizations

18.3.6. District Specific Recommendations

Stakeholder	Action Points
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NSDC	<p>Formal certifications for informally acquired skills</p> <p>A large number of people in the district are seen to be engaged in informal / micro /small scale sectors who have acquired their skills informally.</p> <p>The key areas of informal sector where workforce is engaged are Handlooms, Agro Based units. Targeted training interventions to be developed to upskill and certify those engaged in these areas</p>
Skill Development Training Providers	<p>Introduction of self employment focused courses in low industrialized areas</p> <p>The level industrialization is low in the district with only two large units in the district. Further, there limited interest in migration by local youth due to low entry level salaries. Therefore, the skill training institutes should be on self employment focused courses like repair, mechanic, painter etc.</p> <p>Introduction of industry relevant skills with focus on placements</p> <p>A significant share of industries located in Fatehabad is Agro based. However, the local skill training institutes do not cater to relevant courses for these units.</p> <p>Relevant courses/modules aimed at textile industry like rice mill operator, Lab Attendant, Packaging should be developed</p>
Industry	<p>Support teacher training initiatives</p> <p>Industry should conduct teacher training programs from faculty from local institutes with an aim to improve quality of training delivery and relevance of pedagogy to industry</p> <p>Short-term courses</p> <p>For less skill intensive jobs in sectors such as food processing and construction, which have shown steady growth in the district, industry may up-skill existing workers and skill potential candidates through partnerships with local NGOs or training providers.</p> <p>The industry can partner with local NGOs and training providers to engage in community outreach to raise awareness about skill development and Offer short-term training courses to equip students with the basic skills required for the industry.</p>
District Administration	<p>Facilitate women participation in skill development</p> <p>Facilitate formation of SHG's which will involve more women with an aim to empower</p> <p>Focus on training in agricultural products and processing</p> <p>There is a high dependence on primary sector in the district. However, most of the farmers are still engaged in traditional crops and have low awareness about new crops (Fruits and vegetables) or</p>

opportunities farm mechanization

Facilitate trainings to apprise farmers about new agro and food processing opportunities, benefits of farm mechanization etc

18.4 Skill Gap Assessment of Faridabad District

18.4.1 Administrative Profile

The District Faridabad came on the map of Haryana on 15th August, 1979 as the 12th District of the state. The new District was carved out from erstwhile Gurgaon District. It is bounded by Union Territory of Delhi (National Capital) on its north, Palwal District in the south, Gurgaon District on the west and State of Uttar Pradesh on its east. It is situated 25 kms from Delhi and is part of Delhi NCR region.

It is one of the smaller districts of the state. The area of district is 783 sq km, which accounts for 1.8 percent of the total share of state area¹³⁴. Administratively, the district has been divided into two sub divisions (Faridabad and Ballabgarh); two tehsils (Faridabad and Ballabgarh) and two blocks (Faridabad and Ballabgarh).

18.4.2 Social Profile

18.4.2.1. Demographics

As per Census 2011, Faridabad has a population of 18.09 lakhs¹³⁵, which is the largest for the state of Haryana, contributing to 7.14 percent of total state's share of population. The district has grown at a decadal growth rate of 32.54 percent during the period 2001-11. The district is largely urban, with 79.43 percent of population residing in urban areas.

The population density of the district standing at 2442 persons per sq.km., is the highest in the state. The state average of population density is 573 persons per sq.km¹³⁶. The child gender ratio of Faridabad has gone down over the past ten years (decreased from 847 females per 1000 males in 2001 to 842 females per 1000 males in 2011). However, the adult gender ratio has improved from 826 females per 1000 males in 2001 to 871 females per 1000 males in 2011¹³⁷, though it is still slightly lower than the state average of 877 females per 1000 males.

The scheduled caste population in the district is significantly smaller than other districts of the state, occupying a share of 14.64 percent¹³⁸ of total population, which is lower than the state average of 19.35 percent¹³⁹. There are no Scheduled Tribes in the district of Faridabad.

18.4.2.2. Literacy

The district has a literacy rate of 81.07 percent, which is higher than the state average of 75.55 percent¹⁴⁰. However, the gender disparity in education attainment levels is prominent with a low female literacy rate of 73.84 percent when compared to the male literacy rate of 88.61 percent¹⁴¹.

¹³⁴Haryana State Statistical Abstract 2011-12

¹³⁵http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

¹³⁶http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

¹³⁷http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

¹³⁸http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

¹³⁹[http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

¹⁴⁰http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

¹⁴¹[http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

The school infrastructure is at par with the state average, as indicated by the below benchmarking of school infrastructure. The number of schools at the primary level is much lower than the state average however at the middle level it is much better than the average of the state; at the secondary level too, the school infrastructure in the district is better than the school infrastructure in the state.

Number of Schools per Thousand School Going Children benchmarked against that of Haryana

Region	Primary Level	Middle Level	Secondary Level
Faridabad	5	13	4
Haryana	7	8	3

Source: Haryana Statistical Abstract 2011-12

Number of recognized schools and student enrolments

Region	Primary Level	Middle Level	Secondary Level
Number of schools	835	287	602
Number of scholars	2,20,894	92,650	1,60,386

Source: Haryana Statistical Abstract 2011-12

18.4.3 District Economy

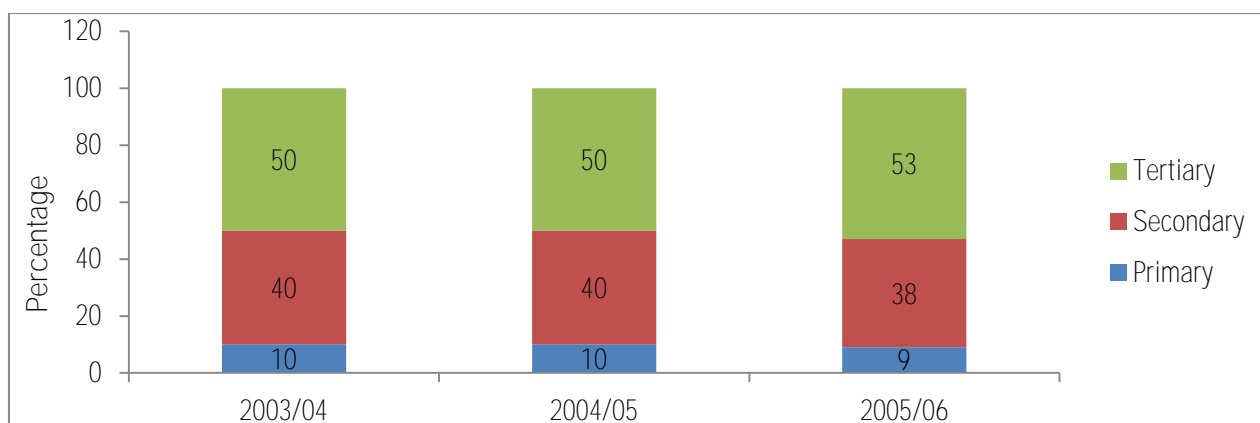
The contribution of Faridabad to the overall state economy is higher than average, on a pro-rata basis. The district has a per capita income of INR 48,019 which is highest in the state¹⁴². The average state per capita income is INR 32,712 as on 2004-05 (At current prices).

Faridabad is one of the major drivers of the state economy. Large industries have grown at tremendous pace in Faridabad. The Faridabad and Ballabgarh Complex is situated at Sher Shah Suri Marg is the prime location for large scale industries in the district. There are now about 15,000 small, medium and large industries in this complex, providing direct and indirect employment to nearly half a million people and ranks 9th largest industrial estate in Asia. The combined turnover is estimated to be about INR 1,500 billion. Many international/ multinational companies like Whirlpool, Goodyear, Larsen & Toubro, Asia Brown Boveri, GKN Invel, Castrol, Escorts, Eicher, Hyderabad Asbestos are functioning in this belt.

The contribution of the tertiary sector towards the district economy is higher than most districts in the state. Due to the urban nature of the district, the contribution of agriculture is limited.

Sub-Sector wise GDDP break up for Faridabad District

¹⁴² <http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphbody.htm>



Source: Planning Commission, State Wise District Domestic Product (Data)

18.4.3.1. Agriculture and Allied sectors

Faridabad is one of the select few districts in Haryana as well as the country where agriculture does not employ a majority of the working population. According to the census of 2001, only 34.18 percent of the working population is employed in agriculture. In the year 2004-05, Agriculture contributed to a mere 8.65 percent of the district GDP, as compared to 24.39 percent for the state.

Composition of the land holding in the district compared to state

Region	Below 1 Hectares	1-3 Hectares	3-5 Hectares	5-10 Hectares	Larger than 10 Hectares
Faridabad	15923	9136	2469	1102	393
Haryana	7,78,142	4,89,777	1,79,665	1,23,898	45,829

Source: Haryana Statistical Abstract 2011-12

Much of the agricultural land in Faridabad has been absorbed by the booming large scale industry in the district. Rice, Wheat, Mustard, Millets and Fruits are the major crops grown in Faridabad. The net irrigated area as a ratio of net sown area in Faridabad at 96.2 percent which is higher than the state average of 82.1 percent¹⁴³. The major source of irrigation is tube well.

Among agriculture and allied activities, mining has a relatively better position in Faridabad than many other districts of Haryana. However, the Supreme Court order barring all mining activities in area upto 5 km of Delhi has adversely affected the mining industry in the district.

18.4.3.2. Industry

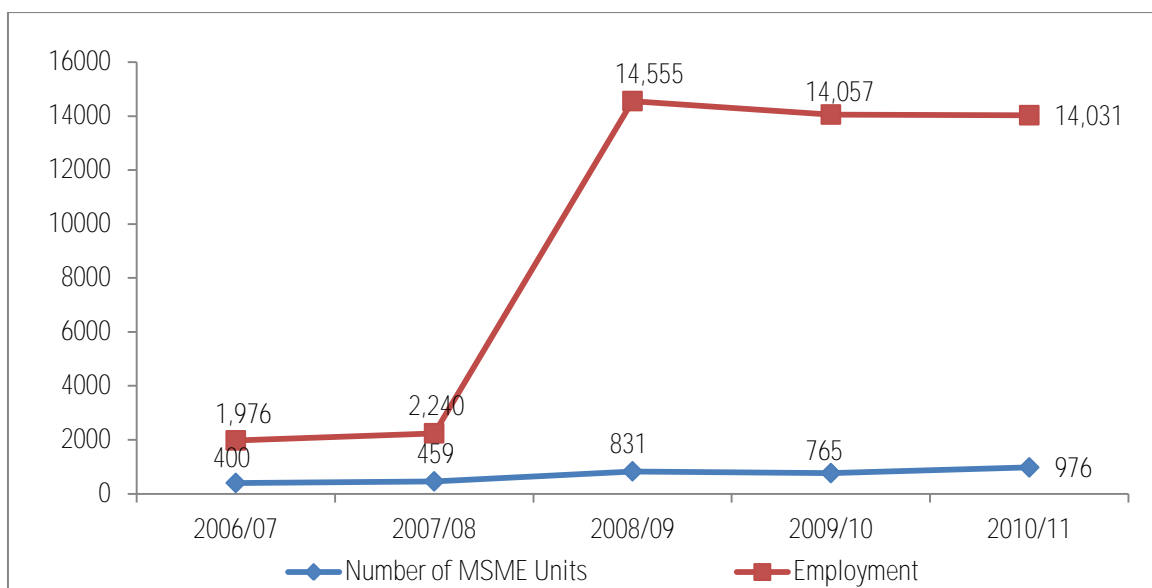
¹⁴³ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

Industry is the largest employer in Faridabad and the district one of the most advanced areas in terms of industry in the state. Among small scale industries agro based, leather based, wood based, textile, repairing service, engineering units, plastic based, metal based, electric machinery and chemical based industries have the highest investment and employ the maximum number of people.

As per 2011 provisional data, there are 17186 registered industrial units in the district. The average daily workers employed in small scale industries is around 4,500 workers and employment in large scale is 1600. .

Between 2006-07 and 2011-12, Micro, Medium-Small Scale Industries segment has witnessed good growth generating additional employment during the period.

MSME growth trends in Faridabad district



Source: Development Commissioner Ministry of Micro, Small and Medium Enterprises, Faridabad Profile

Based on discussions with District Industries Center, following potential MSME growth clusters are identified in Faridabad district.

Existing Clusters	Clusters Identified for Promotion
<ul style="list-style-type: none"> • Light Engineering Industries Clusters • Die casting auto component clusters • Printing Machinery 	<ul style="list-style-type: none"> • Textile industry • Packaging industry • Rubber Industry • IT/ ITeS

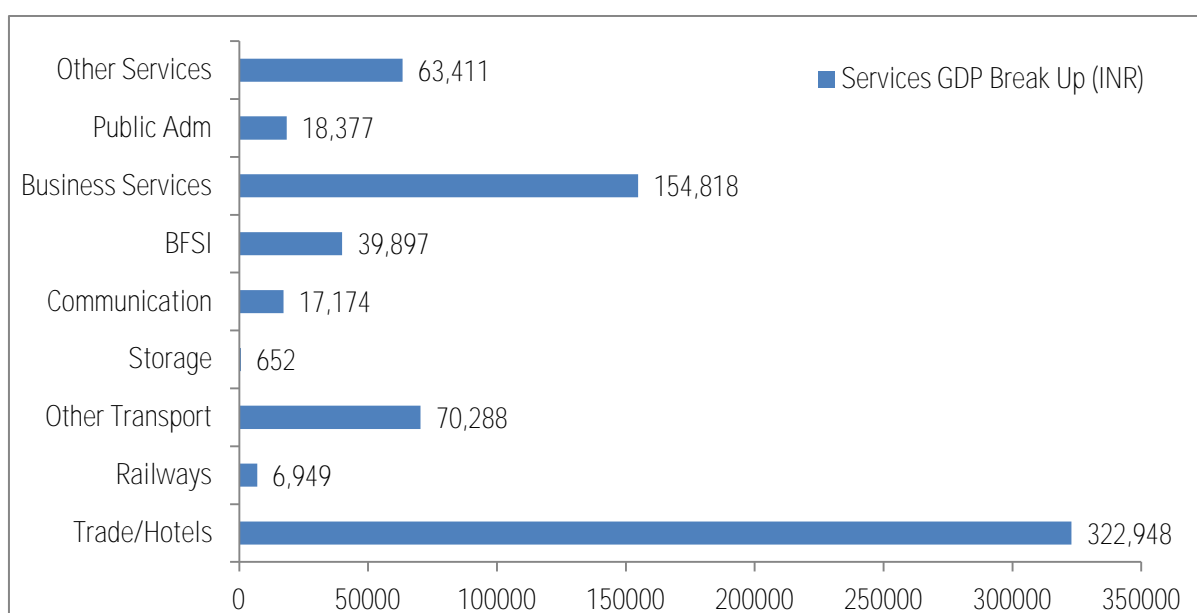
	<ul style="list-style-type: none"> • Chemical
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Source: Primary discussion District Industries Officer, Brief Industrial profile of Faridabad District, MSME

18.4.3.3. Services Sector

The service sector contributed to 52.90 percent¹⁴⁴ of GDDP in the year 2005-06. The sector has grown at a cumulative rate of 15.24 percent in the period between 2001-02 and 2005-06. Trade/Hotels, other services, Public administration, transport and business services are key services activities in Faridabad they have a large share in the GDDP.

Sub-sector wise contribution of services income (2005-06)



Source: Planning Commission, Statewise District Domestic Product Report

The penetration of healthcare facilities measured in terms of patients served per bed, at 1387 per bed is much better than the state average of 1522 per bed. The district has 14 PHCs and 2 CHCs along with 59 Sub centers, however the private participation is limited¹⁴⁵.

With an ever increasing population and fast paced industrial growth the district is expected to witness significant healthcare expenditure over the next decade.

Details of healthcare infrastructure in the district

Category	Number of Institutions
Allopathic Hospitals	4

¹⁴⁴<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

¹⁴⁵<http://nrhm-mis.nic.in/UI/RHS/RHS%202011/District-wise%20Health%20Centres.pdf>

Ayurvedic Institutions	7
Unani Institutions	-
Primary Health Centers (PHCs)	14
Community Health Centers (CHCs)	2
Dispensaries	29
Total	56

Source: Haryana Statistical Abstract 2011-12

Faridabad district has low penetration of banking and financial services measured as a percentage of GDDP at 3.59 percent in comparison to state average of 4.16 percent as per 2004-05 estimates. There are 178 commercial banks, 12 co operative and 22 rural banks in Faridabad¹⁴⁶. The Credit Deposit Ratio for Faridabad is 59.09 percent as against 102.10 percent for the state of Haryana¹⁴⁷.

18.4.4 Workforce Distribution in the district

18.4.4.1 Current Employment Scenario in Faridabad

The main worker participation rate of 28.03 percent¹⁴⁸ in the district is just below the state average of 28.66 percent. The low participation rate remains a concern for the district. Agriculture is not the major source of livelihood only about 36 percent of the total work force is employed in agriculture, compared to 51.29 percent of state average. The female work participation in the district is low in comparison to male work participation, in line with the state level trend, only 24.36 percent of the working population being female.¹⁴⁹

Break Up for the Working Population of Faridabad District

Region	Main Worker Participation	Marginal Worker Participation	Overall Non-Workers	Rural Non-Workers	Urban Non-Workers
Faridabad	28.03 %	6.90 %	72 %	25.57 %	46.43 %
Haryana	28.66 %	10.10 %	50.36 %	33.83 %	16.52 %

Source: Haryana Statistical Abstract 2011-12

¹⁴⁶ <http://dcmsme.gov.in/>

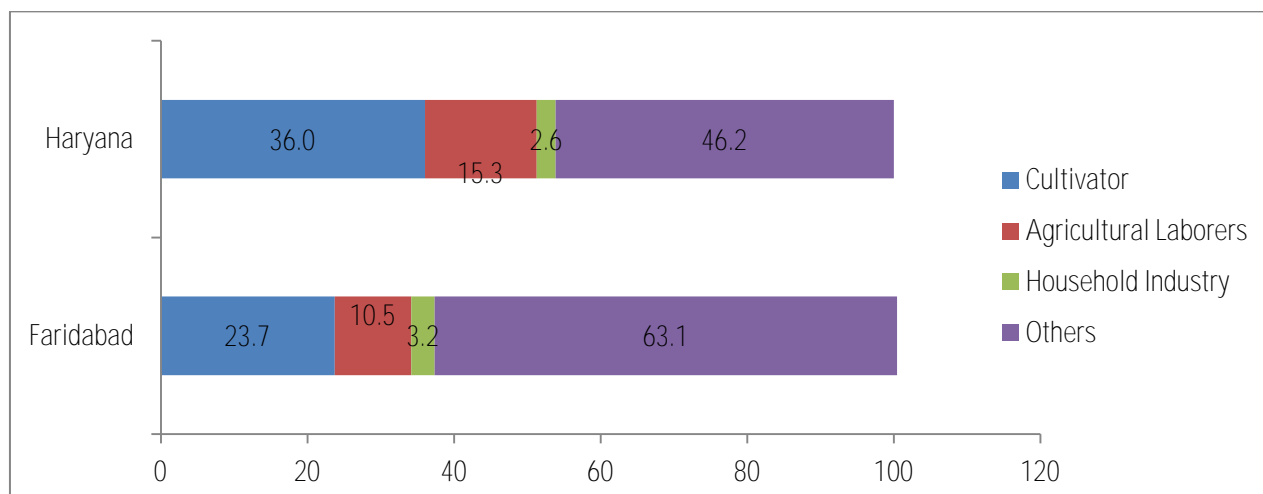
¹⁴⁷ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

¹⁴⁸ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

¹⁴⁹ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

Agriculture and allied sources not being the major occupation Low rate of marginal worker participation indicates that the nature of occupation is not seasonal. Faridabad attracts huge migrant population from various parts of the country in search for employment.

Distribution of Working Population in Faridabad



Source: Haryana Statistical Abstract 2011-12

18.1.4.7. Estimation of Supply of Manpower in the District

District wise incremental supply estimates were arrived at, based on Planning Commission Population Estimates from 2001 population considering birth rate, death rate and life expectancy normalized against population corrections in 2011.

State/ District	Labour Force Supply (2012-17)			Labour Force Supply (2017-22)		
	Gross Addition to Working Age Population	Gross Addition to Labour Force	Net Addition to Labour Force-Supply	Gross Addition to Working Age Population	Gross Addition to Labour Force	Net Addition to Labour Force-Supply
Haryana	2,648,032	1,273,703	727,206	2,421,060	1,164,530	496,173
Faridabad	189,032	73,280	41,838	172,829	66,999	28,546

Source: KPMG Analysis

18.1.4.8. Incremental Supply of Labour force in the District

District wise incremental supply estimates were arrived at based on Planning Commission Population Estimates from 2001 population considering birth rate, death rate and life expectancy normalized against population corrections in 2011.

Region	Supply 2012-17			Supply 2017-22		
	Skilled	Semi - Skilled	Minimally Skilled	Skilled	Semi-Skilled	Minimally Skilled
Faridabad	10,647	2,577	28,615	7,264	1,759	19,524
Haryana	195,716	75,683	455,808	133,537	51,638	310,998

Source: KPMG Analysis

18.4.4.2. Incremental Manpower Requirement in the District

Incremental manpower requirement in the district of district has been estimated based on several parameters such as investments into various sectors in the district for the past 10 years, national level benchmarks on industrial growth across sectors, national inclusion targets for sectors such as banking and healthcare, employment generation potential of various sectors based on labour elasticity and market based insights from discussions with industries in district.

Sector wise skill level requirements during 2012-22

Sub Sectors	Faridabad					
	2012-17			2017-22		
	Skilled	Semi-skilled	Unskilled	Skilled	Semi-skilled	Unskilled
Agriculture & Allied Activities	-	-	(3,407)	-	-	(3,349)
Auto and Auto Components	283	1,133	1,416	357	1,429	1,786
Banking and Financial Services	2,689	8,067	-	2,753	8,260	-
Chemical & Chemical Products	57	230	287	66	262	328
Communication	831	2,493	-	845	2,536	-
Construction	2,476	4,953	42,101	2,205	4,410	37,482
Construction Based Material	26	103	129	32	126	158
Education and Training	1,203	8,097	-	269	1,809	-

Fabricated metal products	293	1,172	1,465	284	1,138	1,422
Food Processing	57	222	324	74	288	420
Healthcare	583	2,334	-	2,121	8,484	-
Hospitality	63	95	476	57	86	429
IT&ITES	9,137	21,320	-	14,236	33,218	-
Manufacturing of Electrical Products	68	274	342	80	321	402
Manufacturing of Engineering Products	447	1,788	2,236	545	2,181	2,726
Paper & Paper Products	20	82	102	23	94	117
Pharma & Medicinal Products	22	87	108	28	113	141
Retail	2,633	2,633	21,064	2,359	2,359	18,868
Rubber and plastics products	41	165	207	48	190	238
Textiles	111	443	554	161	645	806
Transportations and Logistics	1,211	19,226	22,874	1,499	23,806	28,323
Total	22,254	74,917	90,277	28,043	91,754	90,297

Please note that only the industries with significant manpower demand have been individually highlighted in the table.
Source: KPMG Analysis

Skill requirements in key growth sectors have been analyzed based on industry interactions to understand the detailed manpower needs. Sector level skill interventions are indicated in the section below¹⁵⁰.

- Engineering Products/ Fabricated Metal

Category of Skills	Skills
Core Skills	Motor Mechanic, Diesel Mechanic, Fitter, Welder, Fabricators
Allied Skills	Electrician, Wireman
Skills with acute shortage	Specialized welders in Arc welding who can work in extreme conditions on advanced fabrication equipments, Sheet Metal Work, Machining & Casting.

¹⁵⁰ KPMG Analysis

- Construction

Category of Skills	Skills
Core Skills	Electricians, carpenters, barbenders, welders and masons
Allied Skills	Minimally skilled workers
Skills with acute shortage	Machine Operators

- Transportation and Logistics

Category of Skills	Skills
Core Skills	Heavy vehicle drivers, logistics management
Allied Skills	Administrative, computer data management
Skills with acute shortage	Scheduling and logistics planning

- Banking and Financial

Category of Skills	Skills
Core Skills	Knowledge on core banking/mobile/internet platforms
Allied Skills	Sales and Marketing
Skills with acute shortage	Insurance underwriting, claims management

- Organized Retail

Category of Skills	Skills
Core Skills	Shop floor executives/supervisors, computer operator
Allied Skills	Transportation & logistics staff
Skills with acute shortage	Store management, stock planning

18.4.5 Human Resource Development in the District

18.4.5.1. Current State of Workforce Development

Faridabad is an educational hub for the state of Haryana. A host of technical/professional educational institutions are present in the district. However, at an overall level the penetration of higher education in Faridabad is lower than the state average.

Comparison of higher education infrastructure in Faridabad with Haryana

Category of College	Haryana	Faridabad
Arts, Science and Commerce	192	9
Engineering	168	13
Medicine	27	-
Education/Teacher training	472	26
Law	11	2
Others	17	8
Total	887	58
Density(Colleges per Thousand Population)	0.04	0.03

Source: Haryana Statistical Abstract 2011-12

The contribution of the district is low when compared to the state average in the vocational training infrastructure. Faridabad district has four 4 government and 4 private Industrial Training Institutes.

Details of vocational education infrastructure in Faridabad

District Wise ITI/ITC Infrastructure (2011)								
Region	Number				Sanctioned Intake			Density(Seats per Thousand Population)
	Govt ITI	Private ITI	Total		Govt ITI	Private ITI	Total	

Haryana	131	94	225		39140	12804	51944		2.05
Faridabad	4	4	8		1384	480	1864		1.04

Source: Department of Industrial training and Vocational Education, Haryana

The ITI Faridabad offers a wide spectrum of 23 courses including Carpentry, COPA, Cutting and Sewing, Draughtsmen Civil, Draughtsmen Mechanical, Dressmaking, Electrician, Electronics Mechanical (for Girls only), Electronics Mechanic (for SC only), Fitter, Machinist, Machinist Grinder, Mechanic Diesel, Mechanic Machine Tools Maintenance, Mechanic Motor Vehicle, Mechanic Refrigeration & AC, Painter General, Stenography English, Stenography Hindi, Tool and Die Maker, Turner, Turner (For SC only) and Welder. Other government ITIs in the district offers a subset of these courses.

18.4.5.2. Youth Interaction Outcomes

Unlike, most other districts of Haryana, the youth in Faridabad exhibited a high preference towards entrepreneurship over employment. A good share of ITI students have set up their own small scale units in Faridabad.

The awareness level about career opportunities and career aspirations amongst youth in the district is high. High confidence and high awareness amongst youth could be attributed to the region's proximity to Delhi.

The group indicated openness to migrated both inter and intra state. The openness to migration was also due to the fact that the industries located in Faridabad showed little preference for local youth, fearing union issues. Entry level salary was not indicated seen as a mobility barrier.

The perception of ITIs in Faridabad was far better than what was observed in most other districts of Haryana. A section of the group indicated higher preference of ITIs over Diploma courses, primarily due to industry readiness of the course.

Source: Primary Discussion with local youth, ITI student and village sarpanchs

18.4.5.3. Other Skill Mapping and Developmental Concerns

Faridabad is the most densely populated districts in the state. Further, almost 80 percent of the district is urbanized and there is significantly low dependence on agriculture for employment. Thereby, making secondary and tertiary sectors a key employer in the district.

The services sector in the district has also largely affiliated opportunities arising from secondary sector. Therefore, secondary sector remains the lifeline for the district. There is significant number of large and medium scale units present in the district. However, there is low preference towards local youths amongst these industries as they fear union issues. There is also a lack of professionalism and soft skills amongst local youth. As a result, industries typically hire 70 -80 percent of entry level workforce from outside the district and other states like UP and Bihar. Off late, there has been a decrease in such migratory workforce which is creating an issue for existing labour intensive industries.

Industries also face high attrition rate due to presence of significant opportunities in the NCR region. However, this varies across industries.

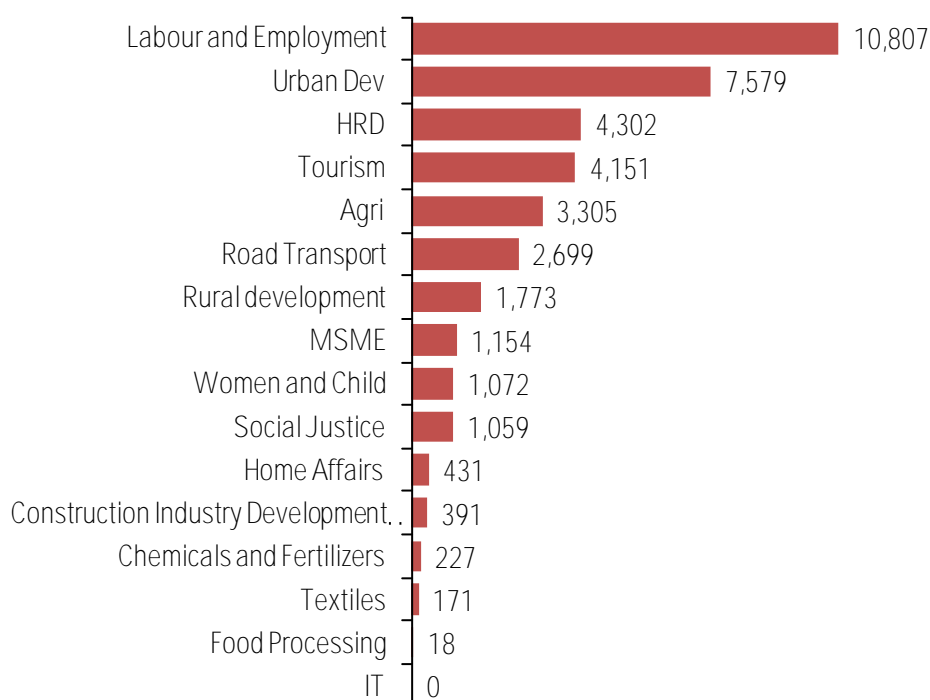
Industries also highlighted the shortage of skill level trades like Maintenance, Electricians, Fitters and Tool Makers in the district. Certain industries have forayed into skill training in order meet the quantity and quality gap of skilled manpower.

Source: Primary Discussion with industry representative, local youth, ITI students, village sarpanches and government officials

18.4.5.4. Incremental Training Capacity in the District through Government Endowments

According to KPMG estimates, based on the potential district budgetary allocation for various central government schemes, around 39 thousand people in total can be trained incrementally during the five year period of 2012-17. Ministry of Agriculture has significant training mandates in the district.

Potential Training Capacity in the district through Government Endowments (2012-17)



Source: KPMG Analysis, Training Plans as per various Ministries/ Departments / Organizations

18.4.6 District Specific Recommendations

Stakeholder	Action Points
NSDC	Capacity Creation

	<p>Capacity creation may be undertaken in the district for growing affiliated service sector trades such as construction, retail, BFSI, transportation and logistics. Initiatives must be focused on more on semi-skilled levels</p>
	<p>Introduction of self employment focused courses</p> <p>The youth in the district exhibited high preference towards self employment and therefore skill training providers should focus on similar courses like repair, mechanic, painter etc.</p> <p>Introduction of short term courses for entrepreneurs</p>
Skill Development Training Providers	<p>There are over 1,000 micro and small units in Faridabad. These entrepreneurs require training on basic business courses like Marketing, Finance, HR etc. Skill training providers should introduce short term courses on business basics for these entrepreneurs</p> <p>Focus on soft skill training to students</p> <p>Attitude and professional conducts remains a major challenge amongst local youth.</p> <p>Targeted training modules for soft skills to be developed and imparted to students</p> <p>Facilitate camps to address behavioural and professional issue amongst students</p>
Industry	<p>Support teacher training initiatives</p> <p>Industry should conduct teacher training programs from faculty from local institutes with an aim to improve quality of training delivery and relevance of pedagogy to industry</p> <p>Short-term courses</p> <p>For less skill intensive jobs in sectors such as food processing and construction, which have shown steady growth in the district, industry may up-skill existing workers and skill potential candidates through partnerships with local NGOs or training providers.</p> <p>The industry can partner with local NGOs and training providers to engage in community outreach to raise awareness about skill development and Offer short-term training courses to equip students with the basic skills required for the industry.</p>
District Administration	<p>Encourage industries to recruit locally</p> <p>The local industries in the district are seen to recruit only a small of share of entry level workforce</p>

locally, fearing union issues. The district administration should take more pro-active role in negotiating with the unions and in turn provide confidence to local industries to recruit locally. The district administration should also closely monitor union activities with an aim to provide fairer role for both industries and workers.

18.5 Skill Gap Assessment of Gurgaon District

18.5.1 Administrative Profile

The Gurgaon district is situated in NCR of Delhi and is located 30 kms from Delhi. The district is surrounded by Delhi and Rajasthan. The area of district is 1,220 sq km, which accounts for 2.8 percent of the total share of state area¹⁵¹.

Administratively, the district has been divided into three sub divisions (North Gurgaon, South Gurgaon and Pataudi) ; five tehsils (Gurgaon, Pataudi, Sohna, Farukh Nagar and Manesar) and four blocks (Farukh Nagar, Gurgaon, Pataudi and Sohna).

18.5.2 Social Profile

18.5.2.1 Demographics

Gurgaon has a population of 15.14 lakhs as per the 2011 Census, which the second largest for the state of Haryana. The district accounts for 6.0 percent of the total state's population. Further, the district population has grown at a decadal growth rate of 73.96 during the period 2001-11. The majority of population (68.82 percent) of the district is urban.

The population density of the state at 1204 persons per sq.km, is the second largest in the state, with the state average being 573¹⁵² persons per sq.km. The child gender ratio of Gurgaon though low earlier, has improved in ten years (increased from 807 females per 1000 males in 2001 to 826 females per 1000 males in 2011). The adult gender ratio fares only marginally better from 850 females per 1000 males in 2001, to 853 females per 1000 males in 2011¹⁵³, compared to state average of 877 females per 1000 males.

The scheduled caste population in the district is significantly smaller than other districts of the state, occupying a share of 14.75 percent¹⁵⁴ of total population, which is lower than the state average of 19.35 percent. There are no scheduled tribes in Gurgaon.

18.5.2.2 Literacy

The district literacy rate of 84.70 percent (up from 78.51 percent in 2001), is much better than the state average of 75.55 percent¹⁵⁵. However, the gender disparity in education attainment levels is prominent with a low female literacy rate of 77.98 percent¹⁵⁶, when compared to the male literacy rate of 90.46 percent¹⁵⁷ for school going children.

¹⁵¹ Haryana State Statistical Abstract 2011-12

¹⁵² http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

¹⁵³ http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

¹⁵⁴ http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

¹⁵⁵ http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

¹⁵⁶ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

¹⁵⁷ <http://www.censusindia.gov.in/>

The number of schools at the primary level and secondary is almost at par with the general school infrastructure in the state. However at the middle level it is worryingly lower than the average of the state.

The school infrastructure is at par with the state average shown by the below benchmarking of Gurgaon's School infrastructure¹⁵⁸

Number of Schools per Thousand School Going Children benchmarked against that of Haryana

Region	Primary Level	Middle Level	Secondary Level
Gurgaon	6	3	5
Haryana	7	8	3

Source: Haryana Statistical Abstract 2011-12

Number of recognized schools and student enrolments

Region	Primary Level	Middle Level	Secondary Level
Number of schools	835	287	602
Number of scholars	2,20,894	92,650	1,60,386

Source: Haryana Statistical Abstract 2011-12

18.5.3 District Economy

The contribution of Gurgaon to overall state economy is much higher on population pro-rata basis. Gurgaon has a per capita income of INR 97,476¹⁵⁹ which is highest in the state, in comparison to state average of INR 32,712 as on 2004-05 (at current prices).

Gurgaon district is one of the major drivers of the state economy, as it is the largest contributor to the GSDP of Haryana. Large industries have grown at tremendous pace in Gurgaon. Gurgaon along with Faridabad generates almost half of the Haryana Government's Income Tax revenue.

Gurgaon has of late emerged as one of the world's foremost hub for outsourcing and off shoring. Some prominent telecom companies along with many major MNCs are headquartered at Gurgaon.

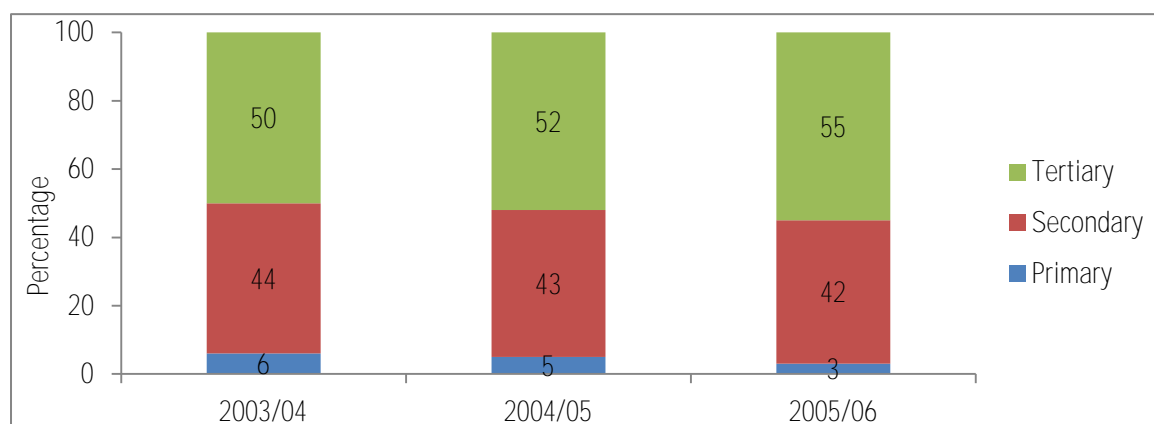
¹⁵⁸ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

¹⁵⁹ <http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphbody.htm>

The proximity to the Indira Gandhi International Airport has played a key role in development of Gurgaon as an industrial hub. The district is also home to some of the largest real estate projects in the country.

The contribution of the tertiary sector towards the district economy is higher than most districts in the state. Due to the urban nature of the district, agriculture does not contribute a major portion to the GDDP.

Sub-Sector wise GDDP trends



Source: Planning Commission, State Wise District Domestic Product (Data)

18.5.3.1 Agriculture and Allied sectors

Gurgaon is one of the select few districts in Haryana, as well as the country where agriculture does not employ a majority of the working population.

According to the census of 2001, only 40.29 percent¹⁶⁰ of the working population was employed in agriculture. In the year 2004-05, agriculture contributed to a mere 5.14 % of the district GDP compared to 24.39% for the state.

Composition of the land holding in the district against the same for the overall state

Region	Below 1 Hectares	1-3 Hectares	3-5 Hectares	5-10 Hectares	Larger than 10 Hectares
Gurgaon	28804	15828	3848	2132	633
Haryana	7,78,142	4,89,777	1,79,665	1,23,898	45,829

Source: Haryana Statistical Abstract 2011-12

Much of the Agricultural land in Gurgaon has been absorbed by the booming large scale industry in the district. Rice, Wheat, Mustard, Bajra and Fruits are the major crops grown in Gurgaon.

¹⁶⁰ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

The net irrigated area as a ratio of net sown area in Gurgaon at 71.1 percent, which is lower than the average for the state which is 82.1 percent. The major sources of irrigation are tube wells¹⁶¹. Forestry and Fishing also has some presence in Gurgaon. The total stocked area for fishing is 564 hectares.

18.5.3.2 Industry

Industry is the largest employer in Gurgaon the district is a country wide leader in terms of Industry.

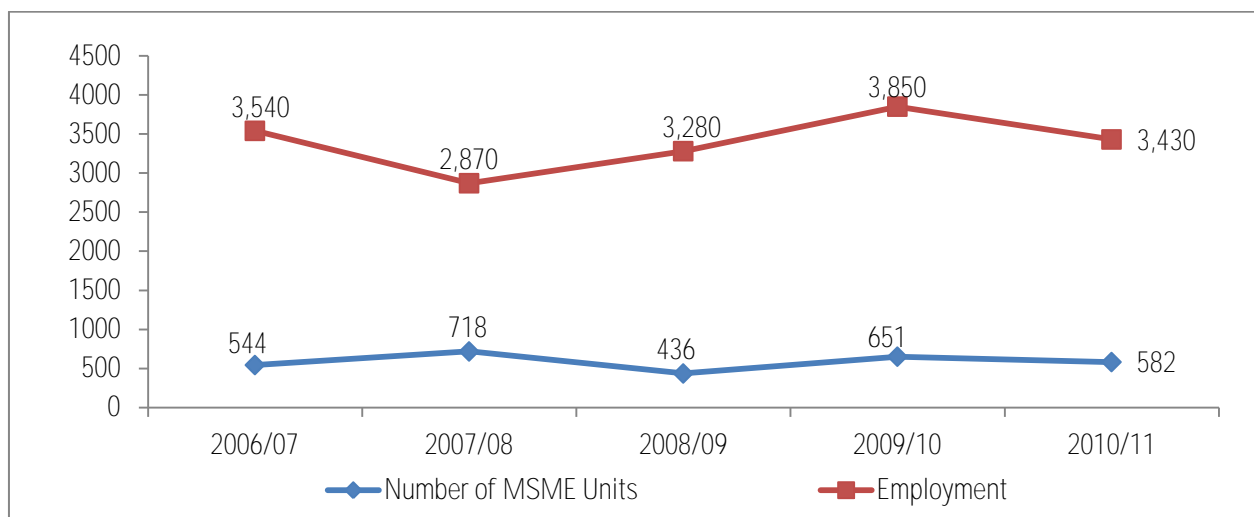
Recently, Reliance Ventures and Haryana State Industrial and Infrastructure Development Corporation Ltd (HSIIDC), signed a joint venture to set up a multi-product special economic zone in Gurgaon.

Among Small Scale Industries Agro based, leather based, wood based, textile, repairing service, engineering units, plastic based, metal based, electric machinery and chemical based industries have the highest investment and employ the maximum number of people.

As per 2011 provisional data, there are 22,491 registered Industrial Units in the district employing 1,43,300 workers only in the medium and large industries segment and 1,86,040 workers in the small scale industries segment¹⁶².

Between 2006-07 and 2011-12, Medium-Small Scale Industries segment has witnessed good growth generating additional employment during the period.

MSME growth trends in Gurgaon



Source: Development Commissioner Ministry of Micro, Small and Medium Enterprises, Gurgaon Profile

¹⁶¹ <http://www.crida.in/>

¹⁶² <http://dcmsme.gov.in/>

Based on discussions with District Industries Center, following potential MSME growth clusters are identified in Gurgaon district.

Existing Clusters	Clusters Identified for Promotion
<ul style="list-style-type: none"> • Auto Workshop/Service Station, Mobile Repair , Computer Hardware, refrigeration & Air conditioning etc. • Auto Rubber Parts • Garment Industry • Auto Parts • Leather Goods and Garments 	<ul style="list-style-type: none"> • Garment Industry • Auto Parts

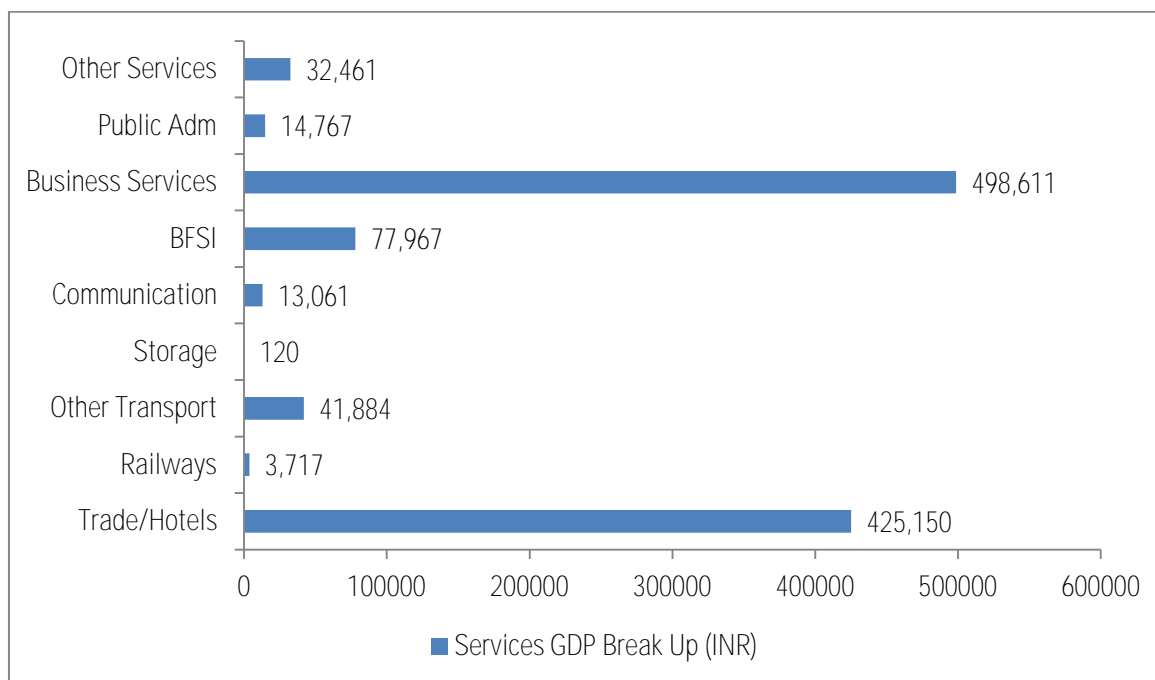
Source: Primary discussion District Industries Officer, Brief Industrial profile of Gurgaon District, MSME

18.5.3.3 Services Sector

The service sector contributed to 55.30 percent¹⁶³ of GDP in the year 2005-06. The sector has grown at a cumulative rate of 20.91 percent in the period between 2001-02 and 2005-06.

Trade/Hotels, other services, Public administration, transport and business services are key services activities in Gurgaon having a large share in the GDP. The pre eminence of the Real Estate/business Service is evident from the chart.

Sub-sector wise contribution of services income (2005-06)



¹⁶³<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

Source: Planning Commission, State Wise District Domestic Product Report

The penetration of healthcare facilities measured in terms of patients served per bed, at 1826 per bed is poorer than state average of 1522 per bed. The district has 15 PHCs and 3 CHCs along with 75 Sub centers with limited private participation¹⁶⁴.

With an ever increasing population and fast paced industrial growth, the district is expected to witness significant healthcare expenditure over the next decade.

Details of healthcare infrastructure in the district

Category	Number of Institutions
Allopathic Hospitals	6
Ayurvedic Institutions	12
Unani/Homeopathic Institutions	8
Primary Health Centers (PHCs)	15
Community Health Centers (CHCs)	3
Dispensaries	8
Total	52

Source: Haryana Statistical Abstract 2011-12

Gurgaon has low penetration of banking and financial services measured as a percentage of GDDP at 3.86 percent, in comparison to state average of 4.16 percent as per 2004-05 estimates. There are 254 commercial banks, 15 co operative and 46 rural banks in the district. The Credit Deposit Ratio for Gurgaon is 46.09 percent as against 102.10 percent for the state of Haryana¹⁶⁵.

18.5.4 Workforce Distribution in the district

18.5.4.1 Current Employment Scenario in Gurgaon

The main worker participation rate of 30.97 percent in the district is just above the state average number of 28.66 percent. The low participation rate is a concern for the industry. Agriculture is not the major source of livelihood, only about 40 percent¹⁶⁶ of the total work force is employed in agriculture, compared to state average of 51.29 percent. The female work

¹⁶⁴<http://nrhm-mis.nic.in/UI/RHS/RHS%202011/District-wise%20Health%20Centres.pdf>

¹⁶⁵ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

¹⁶⁶ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

participation in the district is low, in comparison to male work participation. Female contributes to 27.4 percent¹⁶⁷ of the total working population.

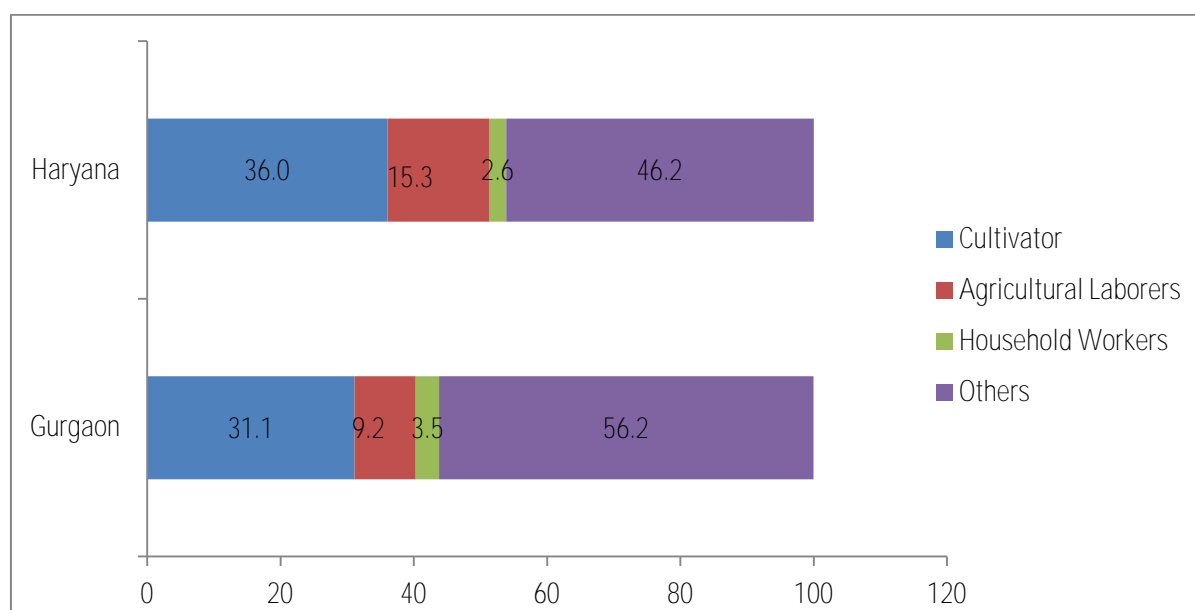
Break Up for the Working Population of the District

Region	Main Worker Participation	Marginal Worker Participation	Overall Non-Workers	Rural Non-Workers	Urban Non-Workers
Gurgaon	30.97 %	6.19 %	36.13 %	22.29 %	13.83 %
Haryana	28.66 %	10.10 %	50.36 %	33.83 %	16.52 %

Source: Haryana Statistical Abstract 2011-12

Gurgaon has a lower rate of marginal worker population as compared to other parts of Haryana. It is primarily on account of relatively low share of employment in agriculture and allied, which contributes largely to the seasonal and the disguised unemployment. Gurgaon attracts huge migrant population from various parts of the country in search for jobs.

Distribution of Working Population in Gurgaon



Source: Haryana Statistical Abstract 2011-12

18.1.4.9. Estimation of Supply of Manpower in the District

District wise incremental supply estimates were arrived at, based on Planning Commission Population Estimates from 2001 population considering birth rate, death rate and life expectancy normalized against population corrections in 2011.

¹⁶⁷ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

State/ District	Labour Force Supply (2012-17)			Labour Force Supply (2017-22)		
	Gross Addition to Working Age Population	Gross Addition to Labour Force	Net Addition to Labour Force-Supply	Gross Addition to Working Age Population	Gross Addition to Labour Force	Net Addition to Labour Force-Supply
Haryana	2,648,032	1,273,703	727,206	2,421,060	1,164,530	496,173
Gurgaon	158,187	49,545	28,287	144,628	45,299	19,300

Source: KPMG Analysis

18.1.4.10. Incremental Supply of Labour force in the District

District wise incremental supply estimates were arrived at based on Planning Commission Population Estimates from 2001 population considering birth rate, death rate and life expectancy normalized against population corrections in 2011.

Region	Supply 2012-17			Supply 2017-22		
	Skilled	Semi - Skilled	Minimally Skilled	Skilled	Semi- Skilled	Minimally skilled
Gurgaon	12,459	5,221	10,608	8,501	3,562	7,238
Haryana	195,716	75,683	455,808	133,537	51,638	310,998

Source: KPMG Analysis

18.5.4.2 Incremental Manpower Requirement in the District

Incremental manpower requirement in the district of district has been estimated based on several parameters such as investments into various sectors in the district for the past 10 years, national level benchmarks on industrial growth across sectors, national inclusion targets for sectors such as banking and healthcare, employment generation potential of various sectors based on labour elasticity and market based insights from discussions with industries in district.

According to the estimates, in the next 5 years, Gurgaon is expected to witness an incremental manpower requirement of over 279 thousand ¹⁶⁸ which is expected to normalize to 289 thousand ¹⁶⁹ during 2017-22.

¹⁶⁸ KPMG Estimates on Incremental Manpower Requirement

¹⁶⁹ KPMG Estimates on Incremental Manpower Requirement

Sector wise skill level requirements during 2012-22

Sub Sectors	Gurgaon					
	2012-17			2017-22		
	Skilled	Semi-skilled	Unskilled	Skilled	Semi-skilled	Unskilled
Agriculture & Allied Activities	-	-	(1,326)	-	-	(1,304)
Auto and Auto Components	2,426	9,701	12,126	2,543	10,173	12,716
Banking and Financial Services	14,429	43,287	-	14,773	44,318	-
Chemical & Chemical Products	235	942	1,177	269	1,077	1,347
Communication	1,036	3,109	-	1,054	3,163	-
Construction	2,676	5,351	45,487	2,382	4,764	40,496
Construction Based Material	25	101	126	31	123	154
Education and Training	1,075	7,239	-	605	4,071	-
Fabricated metal products	675	2,699	3,374	655	2,620	3,275
Food Processing	35	136	198	43	166	241
Hospitality	196	293	1,467	176	264	1,321
IT&ITES	8,927	20,830	-	9,680	22,588	-
Leather	86	345	431	95	381	477
Manufacturing of Electrical Products						

	272	1,089	1,362	313	1,253	1,566
Manufacturing of Engineering Products	261	1,045	1,306	300	1,202	1,502
Mineral Processing	139	556	695	147	589	736
Paper & Paper Products	113	452	565	130	520	650
Pharma & Medicinal Products	1,177	4,706	5,883	1,536	6,145	7,681
Retail	2,043	2,043	16,341	1,830	1,830	14,638
Rubber and plastics products	333	1,331	1,664	383	1,531	1,914
Textiles	1,458	5,830	7,288	1,710	6,838	8,548
Transportations and Logistics	293	4,655	5,538	363	5,764	6,858
Total	39,225	121,002	103,771	40,775	126,399	102,902

Please note that only the industries with significant manpower demand have been individually highlighted in the table.
Source: KPMG Analysis

Skill requirements in key growth sectors have been analyzed based on industry interactions to understand the detailed manpower needs. Sector level skill interventions are indicated in the section below¹⁷⁰.

- Auto Assembly

Category of Skills	Skills
Core Skills	Motor Mechanic, Diesel Mechanic, Fitter, Welder, Fabricators
Allied Skills	Electrician, Wireman

¹⁷⁰ KPMG Analysis

Skills with acute shortage	Specialized welders in Arc welding who can work in extreme conditions on advanced fabrication equipments
----------------------------	--

- Leather Manufacturing

Category of Skills	Skills
Core Skills	Pattern Masters, Tailors - 5 stitch/2 stitch/ criss coss, skiving , edgeinking, color makers , dip dyers, buffing , finishing, packaging
Allied Skills	Merchandizing
Skills with acute shortage	Shoe last manufacturing , Quality and Testing

- Garments

Category of Skills	Skills
Core Skills	Tailor , Pattern Master, CAD CAM, Embroidery, Production Manager, Garment Pressing, Finishers - Thread Cutters, Packaging
Allied Skills	Merchandizing , Store Managers
Skills with acute shortage	Pattern Masters, CAD CAM operators, Merchandizers, Quality and Testing

- Auto Manufacturing

Category of Skills	Skills
Core Skills	Shop floor technical workers
Allied Skills	Maintenance(Mechanical, Electrical, mechatronics, automobile electronics)
Skills with acute shortage	Painting, Body Building (spot welding), Sheet Metal Work, Machining & Casting.

18.5.5 Human Resource Development in the District

18.5.5.1 Current State of Workforce Development

The penetration of higher education in the district has not kept pace with economic development.

Comparison of higher education infrastructure in Gurgaon with Haryana

Category of College	Haryana	Gurgaon
Arts, Science and Commerce	192	9
Engineering	168	-
Medicine	27	1
Education/Teacher training	472	41
Law	11	-
Others	17	4
Total	887	55
Density(Colleges per Thousand Population)	0.04	0.04

Source: Haryana Statistical Abstract 2011-12

The contribution of the district is low when compared to the state average in the vocational training infrastructure. Gurgaon has just 5 Industrial Training Institutes with limited seats.

Details of vocational education infrastructure in Gurgaon

District Wise ITI/ITC Infrastructure (2011) ¹⁷¹								
Region	Number				Sanctioned Intake			Density(Seats per Thousand Population)
	Govt ITI	Private ITI	Total		Govt ITI	Private ITI	Total	
Haryana	131	94	225		39140	12804	51944	2.05
Gurgaon	4	1	5		1400	192	1576	1.04

Source: Department of Industrial training and Vocational Education, Haryana

¹⁷¹ <http://itiharyana.gov.in/>

The ITI Gurgaon offers a wide spectrum of 23 courses including COPA, Carpentry, Cutting and Sewing, Draughtsmen Civil, Draughtsmen Mechanical, Dress Making, Electrician, Electronics Mechanic, Fitter, Machinist, Machinist Grinder, Mechanic Motor Vehicle, Mechanic Machine Tool Maintenance, Mechanic Motor Vehicle, Mechanic Radio and TV, Mechanic Refrigeration & Ac, Mechanic Tractor, Foundryman, Painter General, Plumber, Stenography English, Stenography Hindi, Tool and Die Maker, Tuner, Turner (For SC only), Welder and Wireman. The ITI is also offers CoE on Automobiles in line with local demand. Other government ITIs in the district offers a subset of these courses.

18.5.5.2 Youth Interaction Outcomes

The youth in Gurgaon exhibited higher preference towards employment over entrepreneurship. Unlike other districts in Haryana, the youth were more inclined towards private sector over government jobs. Several factors such as poor financial capacity, work environment and socio-cultural factors seemed to influence youth preferences towards employment. There

In terms of private industry, there was a high preference towards branded auto and auto components companies. There was medium awareness about the career opportunities available to them. While jobs fairs and motivational camps were held at the institutes helped them understand about the various career opportunities across sectors, the effectiveness of those were limited.

Students are not very open to migration as they feel that there is 90 percent probability for them to get employment within 25 kms radius. The entry level salary expected was marginally higher than the market level salaries.

Source: Primary Discussion with local youth, ITI student and village sarpanchs

18.5.5.3 Other Skill Mapping and Developmental Concerns

Gurgaon, as comparative to other districts is the most industrialized area in Haryana. With all the service/business groups offices present, IT's and ITS & Garments (in Udyog Vihar)/auto are the major industries at Gurgaon.

The market is now becoming saturated as industries can't plan for future growth due to absence of land. There is also a shortage of water in the district which further acts as a dampener for industry proliferation. Currently, the land is present only at Manesar area where they are targeting auto & garment industries. The thrust for industrial growth is small scale Auto and Garment industries. However, non availability of skilled manpower is becoming an issue in the region.

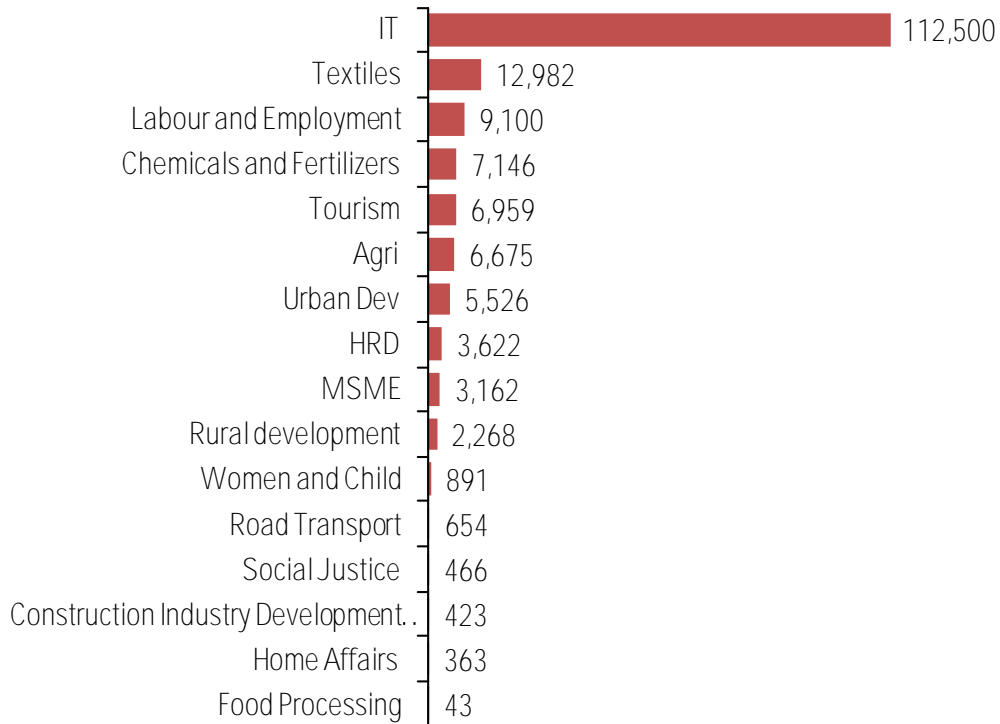
There is however, potential to further develop the district as a services hub due to its proximity to Delhi, capital of India.

Source: Primary Discussion with industry players HSIDC and district administration

18.5.5.4 Incremental Training Capacity in the District through Government Endowments

According to KPMG estimates, based on the potential district budgetary allocation for various central government schemes, around 172 thousand people in total can be trained incrementally during the five year period of 2012-17. Ministry of Agriculture has significant training mandates in the district.

Potential Training Capacity in the district through Government Endowments (2012-17)



Source: KPMG Analysis, Training Plans as per various Ministries/ Departments / Organizations

18.5.6 District Specific Recommendations

Stakeholder	Action Points
NSDC	<p>Align youth aspiration to local industry demand</p> <p>Garments industry is picking up pace in Gurgaon district and is expected to create high demand for skilled manpower going forward. However, it is not a preferred industry option for local youth. There is a need to align the local youth aspiration to industry demand.</p> <p>Undertake campaigns with an aim promote local industries</p> <p>Set up counselling and career guidance camps to inform about the employment opportunities</p>
Skill Development Training Providers	<p>Encourage multi skilling</p> <p>Gurgaon has a mix of industries across segments. Going forward, these industries are expected to have large requirement for semi-skilled workers. Therefore, it is advisable to train workers in basic skills that could be applied to a multitude of industries, providing greater flexibility in employment.</p> <p>The training providers should introduce short term trades which are in high demand in local and</p>

regional and will offer students the flexibility to work across industry segments.

Support teacher training initiatives

Industry should conduct teacher training programs from faculty from local institutes with an aim to improve quality of training delivery and relevance of pedagogy to industry

Industry

Support quality improvement

There were clear qualitative gaps observed in the skilled workforce in the district. The industry should take more pro-active approach to partner with skill training providers in order to improve the quality.

The industry can facilitate alumni interactions, on campus seminars and workshops for the student group.

Generate awareness about Skill Training at school level

District
Administration

Vocational education within the district was unable to attract substantial number of students due to poor perception of quality and relevance. It was indicated that polytechnic diplomas are often seen as a means to gain entry into engineering colleges, and not used for their intended purpose.

The district administration could begin by generating awareness about the skill development at school level itself. The students should be exposed to vocational education through presentations, vocational education since grade 8 onwards. Certain basic subjects covered in vocational training could be offered to the interested students.

18.6 Skill Gap Assessment of Hisar District

18.6.1 Administrative Profile

Hisar district is one of the seven original districts of the state of Haryana. It is surrounded by Fatehabad in the North, Rajasthan in the west, Bhiwani in the south and Jind and Rohtak to the east.

Hisar is one of the largest districts in Haryana in terms of geographical area. The area of district is 3,983 sq km, which accounts for 9.0 percent of the total share of state area¹⁷².

Administratively, the district has been divided into three sub divisions (Hisar, Hansi and Barwala); five tehsils (Hisar, Hansi, Narnaund, Barwala and Adampur) and nine blocks (Adampur, Barwala, Hansi-I, Hansi-II, Hisar-I, Hisar-II, Narnaund, Agoraha, Uklana).

18.6.2 Social Profile

18.6.2.1 Demographics

Hisar has a population of 17.43 lakhs as per the 2011 Census, contributing to 6.88 percent of the total state population. The district population has grown at a decadal growth rate of 13.45 percent in the period of 2001-11

A majority of the population¹⁷³ is rural in nature (68.25%). The population density of the district, at 438 persons per sq.km is considerably lower than the state average 573174 persons per sq.km.

The child gender ratio of Hisar is better than most other districts of Haryana and has improved a lot over the past ten years (increased from 832 females per 1000 males in 2001 to 849 females per 1000 males in 2011), the adult gender ratio also fares much better than the state average from 851 females per 1000 males in 2001, to 871 females per 1000 males in 2011¹⁷⁵ this is at par the state average of 877 females per 1000 males.

Scheduled caste population in the district is higher than the state average in the state, occupying a share of 21.99 percent¹⁷⁶ of total population compared to the state average of 19.35 percent. There are no Scheduled Tribes in Hisar.

18.6.2.2 Literacy

The district literacy rate of 72.89 percent (up from 64.83 % in 2001) is much lower than the state average of 75.55 percent¹⁷⁷. The gender disparity in education attainment levels is also prominent with a low female literacy rate of 62.25 percent when compared to the male literacy rate of 82.22 percent.

¹⁷²Haryana State Statistical Abstract 2011-12

¹⁷³http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

¹⁷⁴http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

¹⁷⁵http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

¹⁷⁶http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

¹⁷⁷http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

The school infrastructure in Hisar is at par with the state average, shown by the below benchmarking of Hisar's School infrastructure with that of the state, in terms of schools per thousand school going children. In fact the district performs better than average at the middle school level but at the primary level its performance is a little below par.

Number of Schools per Thousand School Going Children in Hisar benchmarked against that of Haryana

Region	Primary Level	Middle Level	Secondary Level
Hisar	5	10	3
Haryana	7	8	3

Number of recognized schools and student enrollments in Hisar

Region	Primary Level	Middle Level	Secondary Level
Number of schools	788	137	520
Number of scholars	164599	94935	137928

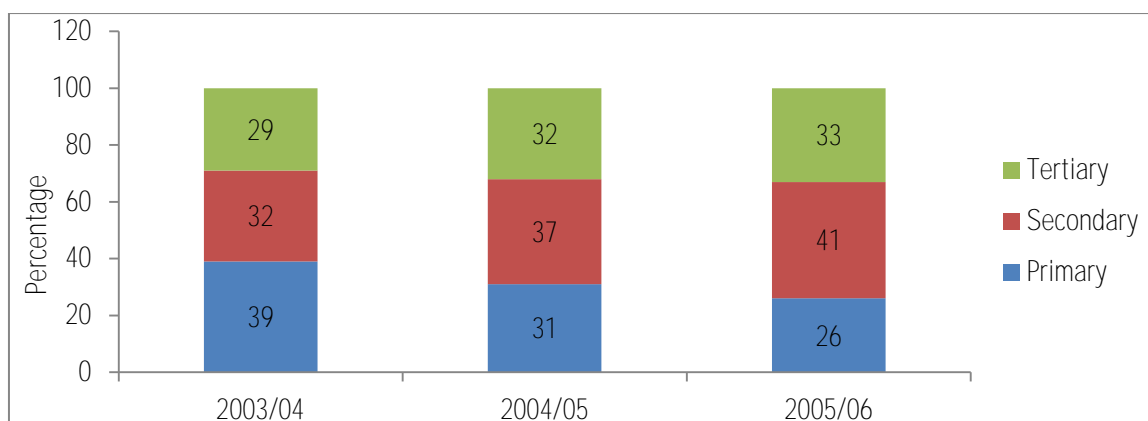
Source: Haryana Statistical Abstract 2011-12

18.6.3 District Economy

Contribution of Hisar to overall state economy is a little greater than the average share on population pro-rata basis - as evident from higher Per Capita Income of INR 35,619 in comparison to state average of INR 32,712 in 2004-05 (At current prices) 178. Hisar is home to one of the largest steel industries in the state, it is also the largest manufacturer of galvanized Iron in India. The city also boasts of a fledgling textile business.

Hisar is also witness to rapid growth in the infrastructure sector. The contribution of all the three sectors to the economy is even with the primary sector going down with the emergence of the large scale development in the manufacturing sector.

Sub-Sector wise GDDP break up for Hisar District



Source: Planning Commission, State Wise District Domestic Product (Data)

18.6.3.1. Agriculture and Allied sectors

Hisar like many other districts in the country as well as the state is primarily an agrarian economy. Agriculture employs a majority of the working population. According to the census of 2001, a majority 58.67 percent of the working population is employed in agriculture, this is down from 62.62 percent in 1991. In the year 2004-05, Agriculture contributed a major portion (30.57 percent) of the district GDP compared to 24.39 percent for the state¹⁷⁹.

The composition of the land holding in the district is shown below benchmarked against the same for the overall state. The average land holding size of 3.25 hectares for Hisar is much larger than the state average of 2.25 hectares. This indicates the presence of intensive and mechanized farming practices.

Composition of the land holding in the district benchmarked against the same for the overall state

Region	Below 1 Hectares	1-3 Hectares	3-5 Hectares	5-10 Hectares	Larger than 10 Hectares
Hisar	36,456	36,631	15,416	11,408	4,617
Haryana	7,78,142	4,89,777	1,79,665	1,23,898	45,829

Source: Haryana Statistical Abstract 2011-12

Agriculture is one of the major employers and contributors to the Hisar economy. The majority of the population is engaged in agriculture. Hisar is also Home to CCS Haryana Agricultural University which helps train manpower and provide scientific knowhow to farmers in the district. Agro-climatically a number of crops can be grown in Hisar district but major portion of cultivable land is occupied by wheat, Cotton, bajra, rapeseed and mustard.

Irrigation in Hisar is below the state average with 81.7 percent of the net sown area irrigated, against the average for Haryana being 82.1 percent. Infrastructure development has adversely affected the agricultural land in some areas of Hisar¹⁸⁰.

¹⁷⁹ <http://www.crida.in/>

¹⁸⁰ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

Dairy is an essential component of rural areas of the district. The region of Jind/Hisar/Fatehabad procures 385.53 lakhs litres of milk, has one milk plant with a capacity of 2.10 lakhs litres per day and 2 milk chilling centres with an average capacity of .5 lakhs litres of milk per day¹⁸¹.

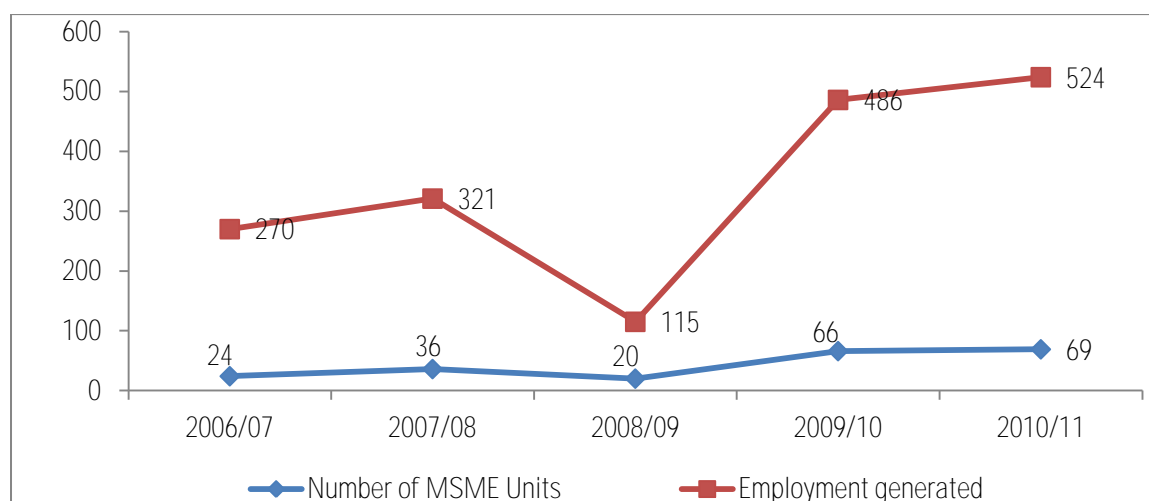
Hisar has the largest area for fishing in the state (1697 hectares). Fishing is one of the most important allied activities in the district¹⁸².

18.6.3.2. Industry

Hisar is very well developed in terms of industry. Among Small Scale Industries agro based, readymade garments, leather based, wood based, repairing service, rubber based and mineral based industries enjoy the highest investment and employ the maximum number of people.

As per 2011 provisional data, there are 10,489 registered Industrial Units in the district. Of these, the large and medium scale industries employ 7,907 workers. Between 2006-07 and 2011-12, Medium-Small Scale Industries segment has witnessed good growth generating additional employment during the period.

Growth trends in MSME segment in the district



Source: Brief MSME Industrial Profile, Hisar District

Based on discussions with District Industries Center, following potential MSME growth clusters are identified in Hisar district.

Existing Clusters	Clusters Identified for Promotion
-	<ul style="list-style-type: none"> Rice

Source: Primary Discussion DIC, Brief MSME Industrial Profile, Hisar District

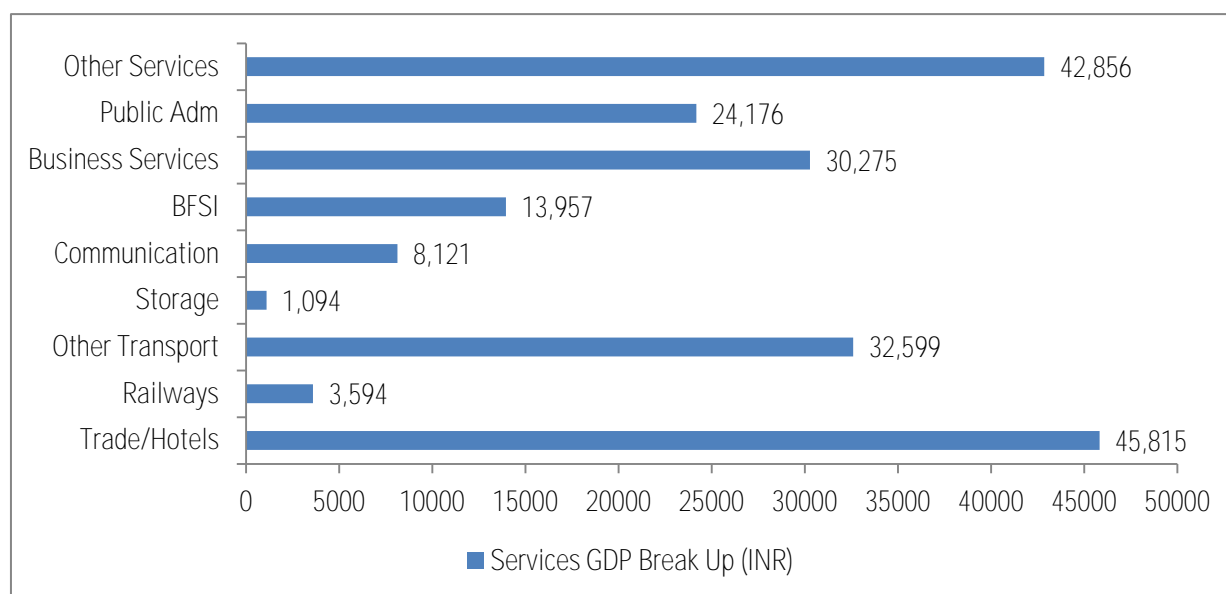
¹⁸¹ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

¹⁸² [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

18.6.3.3. Services Sector

Service sector contributed 32.55 percent¹⁸³ of GDP in the year 2005-06¹⁸⁴. Sector has grown at a cumulative rate of 10.71 percent in the period between 2001-02 and 2005-06. Trade/Hotels, other services, Public administration, transport and business services are key services activities in Hisar they enjoy a large share in the GDP.

Sub-sector wise contribution of services income (2005-06)



Source: Planning Commission, State Wise District Domestic Product (Data)

Penetration of healthcare facilities measured in terms of patients treated per bed, at 1397 per bed is lower than the state average of 1522 per bed. District has 35 PHCs and 8 CHCs along with 198 Sub centers with limited private participation¹⁸⁵.

With an ever increasing population and fast paced industrial growth the district is expected to witness significant healthcare expenditure over the next decade.

Details of healthcare infrastructure in the district

Category	Number of Institutions
Allopathic Hospitals	7
Ayurvedic Institutions	45
Unani/Homeopathic Institutions	-
Primary Health Centers (PHCs)	35

¹⁸³<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

¹⁸⁴<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

¹⁸⁵<http://nrhm-mis.nic.in/UI/RHS/RHS%202011/District-wise%20Health%20Centres.pdf>

Community Health Centers (CHCs)	8
Dispensaries	15
Total	110

Source: Haryana Statistical Abstract 2011-12

Hisar has a poor penetration of banking and financial services measured as a percentage of GDDP at 2.40 percent in comparison to state average of 4.16 percent as per 2004-05 estimates. There are 84 commercial banks, 25 co operative and 18 rural banks in Hisar¹⁸⁶.

18.6.4 Workforce Distribution in the district

18.6.4.1. Current Employment Scenario in Hisar

The main worker participation rate of 33.62 percent in the district is higher than the state average number of 28.66 percent. Agriculture is the major source of livelihood with about 59 % of the total work force employed in agriculture compared to 51.29 % average for the state of Haryana¹⁸⁷. Female work participation in the district is low in comparison to male work participation, in line with the state level trend.

Region	Main Worker Participation	Marginal Worker Participation	Overall Non-Workers	Rural Non-Workers	Urban Non-Workers
Hisar	33.62 %	9.68 %	49.98%	50.69%	48.43%
Haryana	28.66 %	10.10 %	50.36 %	33.83 %	16.52 %

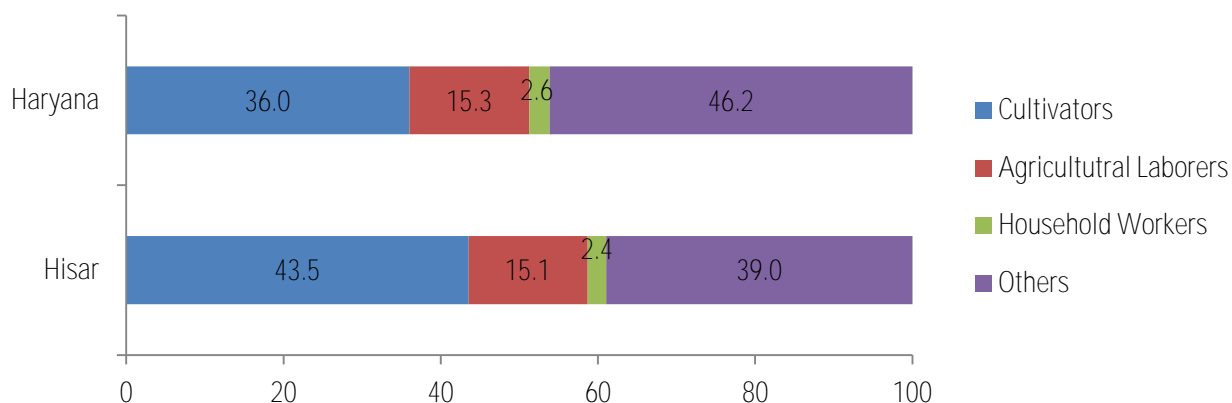
Source: Haryana Statistical Abstract 2011-12

High rate of marginal worker participation shows that the nature of occupation is seasonal and the disguised unemployment is high in the district.

Distribution of Working Population in Hisar

¹⁸⁶ <http://dcmsme.gov.in/>

¹⁸⁷ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)



Source: Haryana Statistical Abstract 2011-12

18.1.4.11. Estimation of Supply of Manpower in the District

District wise incremental supply estimates were arrived at based on Planning Commission Population Estimates from 2001 population considering birth rate, death rate and life expectancy normalized against population corrections in 2011.

State/ District	Labour Force Supply (2012-17)			Labour Force Supply (2017-22)		
	Gross Addition to Working Age Population	Gross Addition to Labour Force	Net Addition to Labour Force-Supply	Gross Addition to Working Age Population	Gross Addition to Labour Force	Net Addition to Labour Force-Supply
Haryana	2,648,032	1,273,703	727,206	2,421,060	1,164,530	496,173
Hisar	182,159	113,677	64,903	166,545	103,933	44,283

Source: KPMG Analysis

18.1.4.12. Incremental Supply of Labour force in the District

District wise incremental supply estimates were arrived at based on Planning Commission Population Estimates from 2001 population considering birth rate, death rate and life expectancy normalized against population corrections in 2011.

Region	Supply 2012-17			Supply 2017-22		
	Skilled	Semi - Skilled	Minimally Skilled	Skilled	Semi-Skilled	Minimally skilled

Hisar	10,194	7,261	47,448	6,955	4,954	32,374
Haryana	195,716	75,683	455,808	133,537	51,638	310,998

Source: KPMG Analysis

18.6.4.2. Incremental Manpower Requirement in the District

Incremental manpower requirement in the district of district has been estimated based on several parameters such as investments into various sectors in the district for the past 10 years, national level benchmarks on industrial growth across sectors, national inclusion targets for sectors such as banking and healthcare, employment generation potential of various sectors based on labour elasticity and market based insights from discussions with industries in district.

Sector wise skill level requirements during 2012-22

Sub Sectors	Hisar					
	2012-17			2017-22		
	Skilled	Semi-skilled	Unskilled	Skilled	Semi-skilled	Unskilled
Agriculture & Allied Activities	-	-	(5,050)	-	-	(4,964)
Banking and Financial Services	785	2,354	-	803	2,410	-
Communication	498	1,493	-	506	1,518	-
Construction	2,429	4,859	41,297	2,163	4,326	36,767
Construction Based Material	75	302	377	88	354	442
Education and Training	232	1,563	-	77	520	-
Fabricated metal products	57	230	287	70	280	350
Healthcare	1,008	4,033	-	1,165	4,659	-
Hospitality						

	78	116	581	70	105	524
Retail	2,670	2,670	21,361	2,392	2,392	19,134
Rubber and plastics products	18	73	91	21	84	105
Transportations and Logistics	487	7,738	9,207	603	9,582	11,400
Total	8,401	25,679	68,487	8,031	26,514	64,142

Please note that only the industries with significant manpower demand have been individually highlighted in the table.
Source: KPMG Analysis

Skill requirements in key growth sectors have been analyzed based on industry interactions to understand the detailed manpower needs. Sector level skill interventions are indicated in the section below¹⁸⁸.

- Transportation and Logistics

Category of Skills	Skills
Core Skills	Heavy vehicle drivers, logistics management
Allied Skills	Administrative, computer data management
Skills with acute shortage	Scheduling and logistics planning

- Banking and Financial

Category of Skills	Skills
Core Skills	Knowledge on core banking/mobile/internet platforms
Allied Skills	Sales and Marketing
Skills with acute shortage	Insurance underwriting, claims management

¹⁸⁸ KPMG Analysis

- Organized Retail

Category of Skills	Skills
Core Skills	Shop floor executives/supervisors, computer operator
Allied Skills	Transportation & logistics staff
Skills with acute shortage	Store management, stock planning

- Healthcare

Category of Skills	Skills
Core Skills	MBBS Doctors, MD/MS specialists, Physician Assistants/Compounders, Radiologists, Dialysis technician, Respiratory technician and OT Assistants & Perfusionist.
Allied Skills	Lab technicians, pharmacists
Skills with acute shortage	Physiotherapists, Biomedical Instrumentation technicians

- Food Processing

Category of Skills	Skills
Core Skills	Fitter, Electrician, Wireman, Instrumentation, Lab Technician
Allied Skills	Instrumentation, Packaging (Jar, Pouch) Operator, AOCP, Lab Attendant, Boiler Operator, QC Chemists, STP, ETP Operators
Skills with acute shortage	Extruder, Boiler Operators, PPO is required in industries having in house packing development

18.6.5 Human Resource Development in the District

18.6.5.1 Current State of Workforce Development

Hisar is home over 10,000 registered industrial units, of which agro based and wood making industries are the most prominent. Vocational training and skilled laborers are a required to maintain the level of industrial production. Overall, the penetration of higher education in Hisar is considerably at par with the state average. Hisar is also home to agricultural universities like Haryana Agricultural University and Guru Jambheshwar University.

Comparison of higher education infrastructure in Hisar with Haryana

Category of College	Haryana	Hisar
Arts, Science and Commerce	192	12
Engineering/Technology/Architecture	168	4
Medical (Allopathy/Dentistry/Homeopathy)	27	-
Education/Teacher training	472	27
Law	11	1
Others	17	1
Total	887	45
Density(Colleges per Thousand Population)	0.04	0.03

Source: Haryana Statistical Abstract 2011-12

The contribution of the district is high when compared to the state average in the vocational training infrastructure. Hisar has a total of 18 Industrial Training Institutes.

Details of vocational education infrastructure in Hisar

District Wise ITI/ITC Infrastructure (2011)							
Region	Number			Sanctioned Intake			Density(Seats per Thousand Population)
	Govt ITI	Private ITI	Total	Govt ITI	Private ITI	Total	
Haryana	131	94	225	39140	12804	51944	2.05
Hisar	11	7	18	4088	1200	5088	2.34

Source: Department of Industrial training and Vocational Education, Haryana

ITI Hisar offers 26 courses including carpentry, COPA, draughtsman civil, draughtsman mechanical, electrician, electronics mechanic, fitter, machinist, mechanic diesel, MCOECS, mechanic motor vehicle, mechanical red. & air conditioning, mechanic tractor, painter general, plastic processing operator, plumber and sheet metal worker. It also offers a CoE on fabrication. The other ITIs offer a subset of these courses.

18.6.5.2. Youth Interaction outcomes

The youth in the district exhibited a high preference towards employment over entrepreneurship. Several factors such as poor financial capacity, work environment and socio-cultural factors influenced youth preferences towards employment.

There was a strong inclination towards government jobs over private jobs. However, low level entry salaries remained a key challenge for mobility. The minimum salary expectation for mobility was highlighted as INR 7,000-8,000 per month.

There are local job fairs held in the district, however only local companies are seen to participate in the same. Therefore, these remain of limited interest to the majority of the students.

There was poor perception about skill training within district. ITI and Polytechnics were considered to be less preferred options owing to relevance and quality.

Source: Primary Discussion with local youth, ITI student and village sarpanchs

18.6.5.3. Other Skill Mapping and Developmental Concerns

Hisar has a high share of agro based industries located within the district. Further, there is no large scale industry in Hisar.

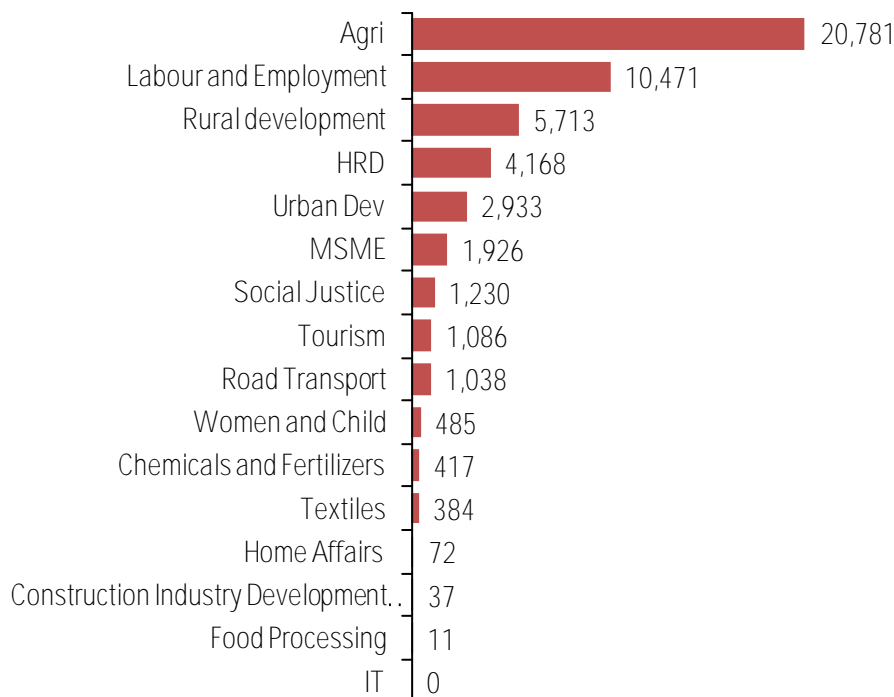
However, the key medium scale industries within district are that of stainless steel, cotton yarn, sewing thread, medicines, guar gum, M. S Pipes and alloy steel ingots. These industries raised an issue of supply of skilled manpower in the district. There was a low preference towards local youths, as it was felt that locals lack professionalism and soft skills. As a result, industries typically hire 70 -80 high share of entry level workforce from outside the district / state including south India.

Source: Primary Discussion with industry representatives, ITI Principal and Teachers

18.6.5.4. Incremental Training Capacity in the District through Government Endowments

According to KPMG estimates, based on the potential district budgetary allocation for various central government schemes around 51 thousand people in total can be trained incrementally during the five year period of 2012-17. Ministry of Agriculture has significant training mandates in the district.

Potential Training Capacity in Hisar during 2012-17



Source: KPMG Analysis, Training Plans as per various Ministries/ Departments / Organizations

18.6.6 District Specific Recommendations

Stakeholder	Action Points
NSDC	<p>Creating a favorable and positive skill environment in the district A majority of youth in the district continue to perceive 'skill acquisition' poorly and consider enrolling in an ITI/ITC in the region as a last resort. Awareness campaigns about benefit of acquiring vocational education at the village level in collaboration with NGOs and Community based organizations. Identify high-performing and motivated students and provide scholarships for higher education.</p> <p>Capacity Creation Capacity creation may be undertaken in the industrialized pockets of the district i.e. Hansi Tehsil for growing affiliated service sector trades such as construction, retail, BFSI, transportation and logistics. Initiatives must be focused on more on semi-skilled levels Further, the district also lacks basic skills like Instrumentation etc within the district.</p>
Skill Development Training Providers	<p>Focus on soft skill training to students Attitude and professional conducts remains a major challenge amongst local youth. Targeted training modules for soft skills to be developed and imparted to students Facilitate camps to address behavioral and professional issue amongst students</p> <p>Encourage multi skilling Hisar has a mix of industries across segments. Going forward, these industries are expected to have large requirement for semi-skilled workers. Therefore, it is advisable to train workers in basic skills that could be applied to a multitude of industries, providing greater flexibility in employment. The training providers should introduce short term trades which are in high demand in local and regional and will offer students the flexibility to work across industry segments.</p>

Industry	<p>Support quality improvement</p> <p>There were clear qualitative gaps observed in the skilled workforce in the district. The industry should take more pro-active approach to partner with skill training providers in order to improve the quality. The industry can facilitate alumina interactions, on campus seminars and workshops for the student group.</p>
District Administration	<p>Generate awareness about Skill Training at school level</p> <p>Vocational education within the district was unable to attract substantial number of students due to poor perception of quality and relevance. It was indicated that polytechnic diplomas are often seen as a means to gain entry into engineering colleges, and not used for their intended purpose. The district administration could begin by generating awareness about the skill development at school level itself. The students should be exposed to vocational education through presentations, vocational education since grade 8 onwards. Certain basic subjects covered in vocational training could be offered to the interested students.</p>

18.7 Skill Gap Assessment of Jhajjar District

18.7.1 Administrative Profile

The Jhajjar district was carved out of Rohtak district on 15 July 1997. The district lies in south east of Haryana state. On its north lies the Rohtak district and in the south lies the Rewari district. In the East lies Tikri border of National Capital of India and in the west lies Bhiwani district

The area of district is 1,834 sq km, which accounts for 4.1 percent of the total share of state area¹⁸⁹. Administratively, the district has been divided into three sub divisions (Jhajjar, Bhadurgarh and Beri); four tehsils (Jhajjar, Bhadurgarh, Beri and Matanhail) and five blocks (Jhajjar, Bhadurgarh, Beri, Matanhail and Salhawas).

18.7.2 Social Profile

18.7.2.1 Demographics

As per Census 2011, Jhajjar district has a population of 9.58 lakhs, contributing to 3.78 percent of the total state's share. The district population has grown at a decadal growth rate of 8.9 percent during the period 2001-11. A high share of district's population i.e. 74.61 percent¹⁹⁰ is rural.

The population density of the district standing at 523 persons per sq.km is roughly at par with the state average of 573 persons per sq.km¹⁹¹. The child gender ratio of Jhajjar is dismal and is one of the worst in the country. It has further decreased from 801 females per 1000 males in 2001 to 774 females per 1000 males in 2011. However, the adult gender ratio has improved from 847 females per 1000 males in 2001 to 861 females per 1000 males in 2011¹⁹². The adult gender ratio is however still slightly lower than the state average of 877 females per 1000 males.

The population of scheduled caste in the district is significant, occupying a share of 17.79 percent of total population which is lower than the state average of 19.35 percent¹⁹³. There are however, no Scheduled Tribes in Jhajjar.

18.7.2.2 Literacy

The district literacy rate of 80.65 percent is better than the state average of 75.55 percent¹⁹⁴. However, the gender disparity in education attainment levels is prominent with a low female literacy rate of 70.96 percent¹⁹⁵.

The school infrastructure is at par with the state average shown by the below benchmarking of school infrastructure. The number of schools at the primary level is much lower than the state average. However at the middle level it is much better than average and at the secondary level, the school infrastructure in the district largely reflects the state average.

Number of Schools per Thousand School Going Children benchmarked against that of Haryana

¹⁸⁹Haryana State Statistical Abstract 2011-12

¹⁹⁰http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

¹⁹¹http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

¹⁹²http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

¹⁹³http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

¹⁹⁴http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

¹⁹⁵[http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

Region	Primary Level	Middle Level	Secondary Level
Jhajjar	5	12	3
Haryana	7	8	3

Source: Haryana Statistical Abstract 2011-12

Number of recognized schools and student enrolments

Region	Primary Level	Middle Level	Secondary Level
Number of schools	454	287	602
Number of scholars	21,217	23,741	1,18,507

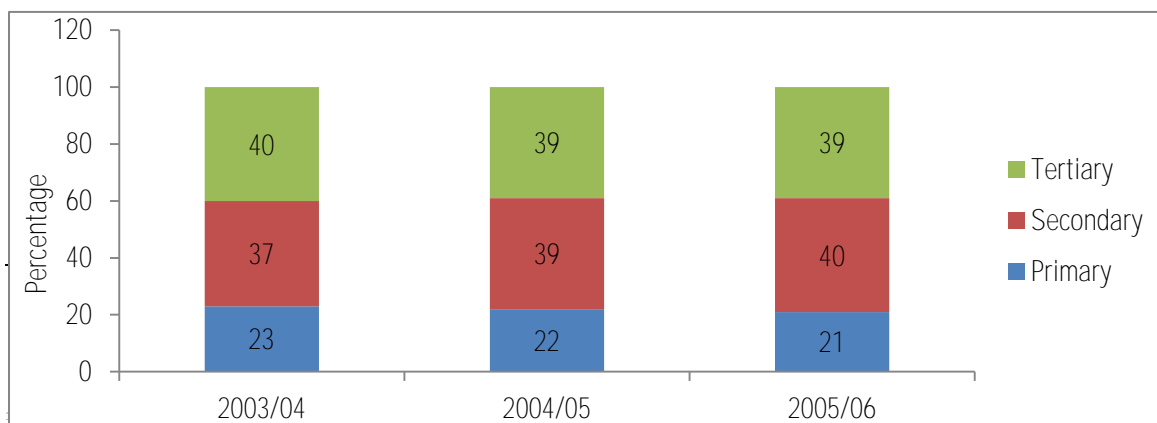
Source: Haryana Statistical Abstract 2011-12

18.7.3 District Economy

The contribution of Jhajjar to overall state economy is slightly below the average on population pro-rata basis. Jhajjar has a per capita income of INR 31,066¹⁹⁶, in comparison to state average of INR 32,712 in 2004-05 (At current prices).

Reliance Industries has signed a Joint venture with the Haryana State Industry and Infrastructure Development Corporation to set up one of the largest Special Economic Zones of the country in the district. Jhajjar also houses two power plants. The prominent industries in the district are Ceramics, Footwear and Metal industry. A Super Thermal Power Station has been established at Jhajjar to provide energy to Delhi and Haryana. Bahadurgarh is the emerging Industrial hub of Jhajjar, with contributions from the Pipes, Biscuits and Ceramics industry. The contribution of the secondary sector towards the district economy is high.

Sub-Sector wise GDDP trends in Jhajjar



Source: Planning Commission, State Wise District Domestic Product (Data)

18.7.3.1 Agriculture and Allied sectors

Despite the recent industrial growth, agriculture remains the largest employer in the district. According to the 2001 census estimates, 57.17 percent of the working population is employed in this agriculture and allied sectors. In the year 2004-05, Agriculture contributed to 21.04 percent of the district GDP compared to 24.39 percent for the state.

Composition of the land holding in the district benchmarked against the same for the overall state

Region	Below 1 Hectares	1-3 Hectares	3-5 Hectares	5-10 Hectares	Larger than 10 Hectares
Jhajjar	35025	22442	7641	6372	1723
Haryana	7,78,142	4,89,777	1,79,665	1,23,898	45,829

Source: Haryana Statistical Abstract 2011-12

Bajra, Jawar for fodder, Guar, Arhar, Paddy, Cotton, Sugarcane, Till, Groundnut, Soya been and Moong are the major crops grown in kharif season. Wheat, Barley, Sarson and Gram are the major crops grown during Rabi season.

However, farmers in Jhajjar are increasingly moving away from traditional farming in order to minimize risk and ensure a continuous stream of income. Mechanization and scientific farming have also been encouraged by the state government through its Agriculture department¹⁹⁷. The net irrigated area as a ratio of net sown area in Jhajjar at 74.0 percent and is much below the state average of 82.1 percent. The major sources of irrigation remain as canals and tubewells.¹⁹⁸

Dairy is an important allied activity for the region of Jhajjar. The area of Rohtak/ Sonipat/ Mahendragarh /Rewari /Bhiwani /Jhajjar together procure 422.42 lakhs litres of milk and also has 1 milk plant and four milk chilling centres with an average capacity of 0.7 lakhs litres per day.¹⁹⁹

Jhajjar has 1261 hectares of stocked area reserved for fishing, highest in the state of Haryana. Fishing is a fledgling business in Jhajjar.²⁰⁰

18.7.3.2 Industry

The industrial activity has grown significantly in last few years, owing to proximity to Delhi- NCR, availability of cheap land and cheap labour. Among small scale industries present in the district, agro based, leather based, wood based,

¹⁹⁷ <http://www.crida.in/>

¹⁹⁸ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

¹⁹⁹ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

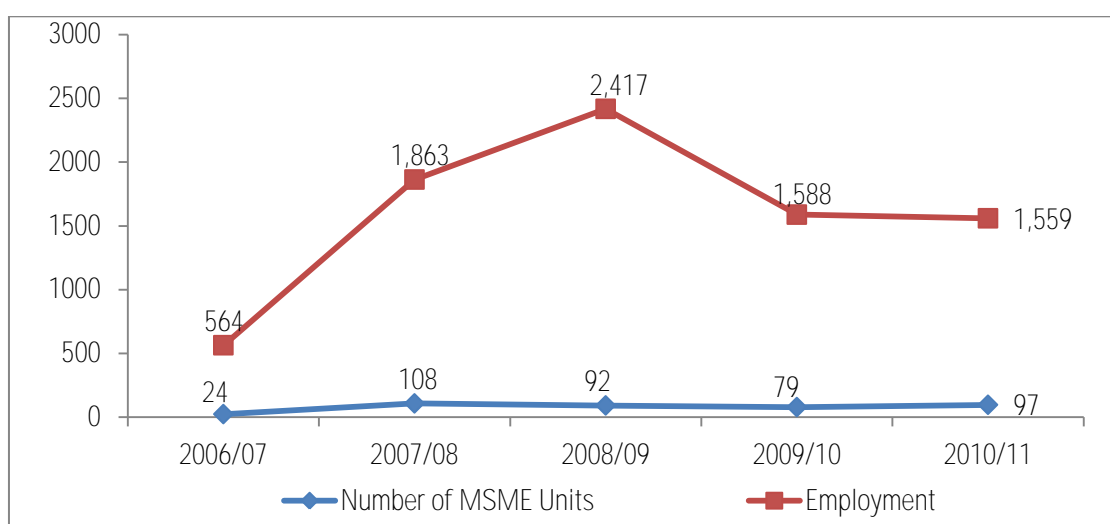
²⁰⁰ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

textile, repairing service, engineering units, plastic based, metal based, electric machinery and chemical based industries have contributed to highest share of investment and employment.

As per 2011 provisional data, there are 1,849 registered industrial units in the district, employing 1,000 workers in the medium and large industries segment and 16,082 workers in the small scale industries segment²⁰¹.

Between 2006-07 and 2011-12, Medium-Small Scale Industries segment has witnessed good growth generating high employment during the period.

MSME growth trends in the district



Source: Development Commissioner Ministry of Micro, Small and Medium Enterprises, Jhajjar Profile

Based on discussions with District Industries Center, following potential MSME growth clusters are identified in Jhajjar district.

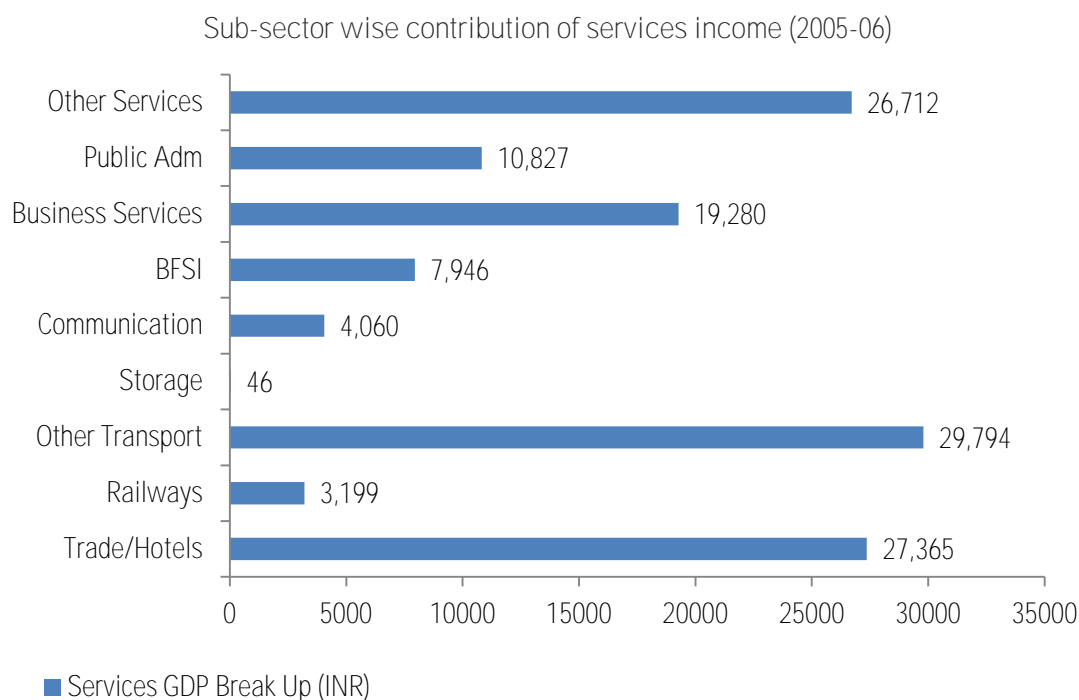
Existing Clusters	Clusters Identified for Promotion
<ul style="list-style-type: none"> Footwear park Cluster, Bhadurgarh 	<ul style="list-style-type: none"> Chemicals , Bhadurgarh Electronics Agro Based Food Processing Fly Ash Brick and Tiles

Source: Primary discussion District Industries Officer, Jhajjar, Brief Industrial profile of Jhajjar District, MSME

18.7.3.3 Services Sector

²⁰¹ <http://dcmsme.gov.in/>

The contribution of services sector to overall state GDDP was 39.07 percent²⁰² of GDDP in the year 2005-06. The sector has grown at a cumulative rate of 12.23 percent in the period between 2001-02 and 2005-06. Trade/Hotels, other services, public administration, transport and business services are key services activities in Jhajjar.



Source: Planning Commission, State Wise District Domestic Product Report

The penetration of healthcare facilities measured in terms of patients served per bed, at 1824 per bed is much higher than the state average of 1522 per bed. The district has 27 PHCs and 6 CHCs along with 125 Sub centers with limited participation from private sectors. Considering limited availability of healthcare facilities, the district is expected to witness significant Government healthcare expenditure over the next decade.

Details of healthcare infrastructure in the district

Category	Number of Institutions
Allopathic Hospitals	3
Ayurvedic Institutions	29
Unani Institutions	1
Primary Health Centers (PHCs)	27
Community Health Centers (CHCs)	6

²⁰²<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphbody.htm>

Dispensaries	5
Total	71

Source: Haryana Statistical Abstract 2011-12

Jhajjar has low penetration of banking and financial services measured as a percentage of GDDP, at 2.60 percent in comparison to state average of 4.16 percent (as per 2004-05 estimates). The Credit Deposit Ratio for Jhajjar is 64.24 percent as against 102.10 percent for Haryana²⁰³. There are 84 commercial banks, 24 co operative and 20 rural banks in Jhajjar. Since Jhajjar is primarily an agrarian economy the proliferation of private sector banks is limited.

18.7.4 Workforce Distribution in the district

18.7.4.1 Current Employment Scenario in Jhajjar

The main worker participation rate of 31.38 percent in the district is just above the state average of 28.66 percent. The low participation rate indicates the limited proliferation of industry and overdependence on the primary sector. Agriculture is the major source of livelihood, 57.17 percent of the total work force is employed with Agriculture, which is comparable with the state average of 51.29 percent²⁰⁴.

The female work participation in the district is low, in comparison to male work participation, only 37 percent²⁰⁵ of the working population is female.

Break Up for the Working Population of Jhajjar District

Region	Main Worker Participation	Marginal Worker Participation	Overall Non-Workers	Rural Non-Workers	Urban Non-Workers
Jhajjar	31.38 %	12.78 %	51.35 %	37.71 %	13.64 %
Haryana	28.66 %	10.10 %	50.36 %	33.83 %	16.52 %

Source: Haryana Statistical Abstract 2011-12

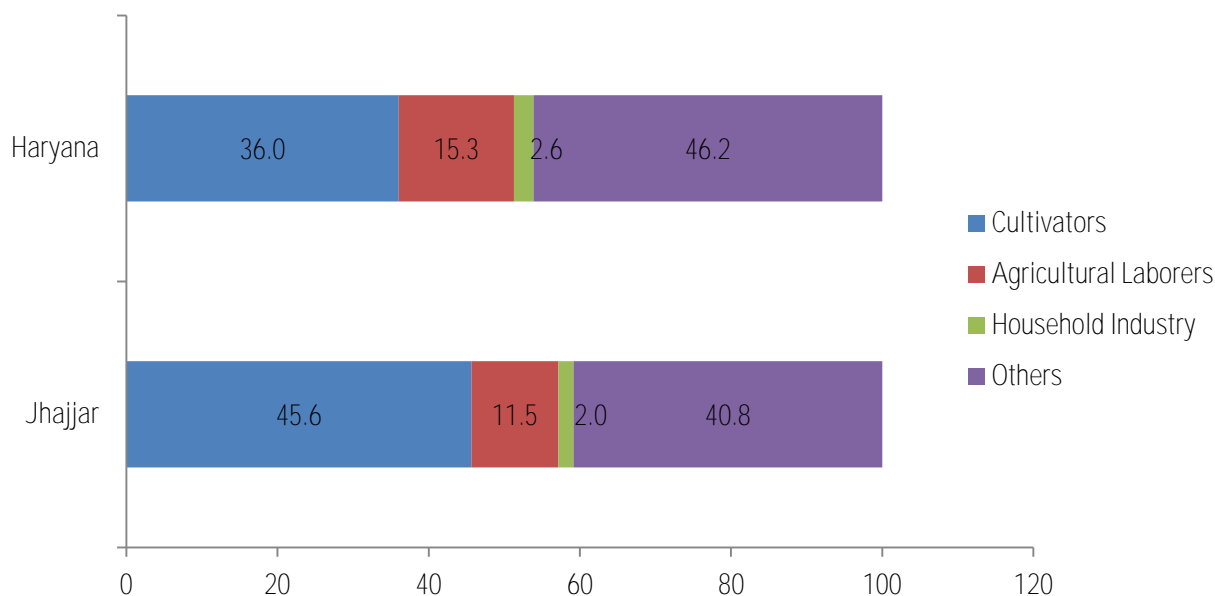
With agriculture and allied sources being major occupation sources, there is high share of disguised unemployment, especially considering the seasonal nature.

Distribution of Workforce in Jhajjar

²⁰³ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

²⁰⁴ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

²⁰⁵ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)



Source: Haryana Statistical Abstract 2011-12

A significant share of agricultural workforce is contributed by Agricultural labours. Agricultural labours are largely constituted by migrant labours from nearby states like Uttar Pradesh and Bihar. The migration of these labours is seasonal in nature and is dependent on rice and sugarcane crop seasons.

18.1.4.13. Estimation of Supply of Manpower in the District

District wise incremental supply estimates were arrived at, based on Planning Commission Population Estimates from 2001 population considering birth rate, death rate and life expectancy normalized against population corrections in 2011.

State/ District	Labour Force Supply (2012-17)			Labour Force Supply (2017-22)		
	Gross Addition to Working Age Population	Gross Addition to Labour Force	Net Addition to Labour Force-Supply	Gross Addition to Working Age Population	Gross Addition to Labour Force	Net Addition to Labour Force-Supply
Haryana	2,648,032	1,273,703	727,206	2,421,060	1,164,530	496,173
Jhajjar	100,108	63,628	36,328	91,527	58,174	24,786

Source: KPMG Analysis

18.1.4.14. Incremental Supply of Labour force in the District

District wise incremental supply estimates were arrived at based on Planning Commission Population Estimates from 2001 population considering birth rate, death rate and life expectancy normalized against population corrections in 2011.

Region	Supply 2012-17			Supply 2017-22		
	Skilled	Semi - Skilled	Minimally Skilled	Skilled	Semi-Skilled	Minimally skilled
Jhajjar	12,006	4,121	20,201	8,191	2,812	13,783
Haryana	195,716	75,683	455,808	133,537	51,638	310,998

Source: KPMG Analysis

18.7.4.2 Incremental Manpower Requirement in the District

Incremental manpower requirement in the district of district has been estimated based on several parameters such as investments into various sectors in the district for the past 10 years, national level benchmarks on industrial growth across sectors, national inclusion targets for sectors such as banking and healthcare, employment generation potential of various sectors based on labour elasticity and market based insights from discussions with industries in district.

Sector wise skill level requirements during 2012-22

Sub Sectors	Jhajjar					
	2012-17			2017-22		
	Skilled	Semi-skilled	Unskilled	Skilled	Semi-skilled	Unskilled
Agriculture & Allied Activities	-	-	(2,856)	-	-	(2,808)
Banking and Financial Services	508	1,523	-	520	1,559	-
Chemical & Chemical Products	44	175	219	50	201	251
Communication	249	746	-	253	759	-
Construction	887	1,775	15,084	790	1,580	13,429
Construction Based Material	453	1,814	2,267	553	2,212	2,765
Education and Training	53	358	-	20	134	-

Fabricated metal products	81	323	404	78	314	392
Healthcare	857	3,429	-	864	3,456	-
Hospitality	22	34	169	20	30	152
Leather	270	1,080	1,350	283	1,133	1,416
Manufacturing of Electrical Products	25	101	126	29	116	145
Manufacturing of Engineering Products	57	227	284	65	261	326
Retail	1,026	1,026	8,205	919	919	7,350
Rubber and plastics products	75	299	374	86	344	430
Textiles	22	90	112	33	131	163
Transportations and Logistics	471	7,483	8,903	584	9,266	11,024
Total	5,129	20,593	34,786	5,181	22,548	35,214

Please note that only the industries with significant manpower demand have been individually highlighted in the table.
Source: KPMG Analysis

Skill requirements in key growth sectors have been analyzed based on industry interactions to understand the detailed manpower needs. Sector level skill interventions are indicated in the section below²⁰⁶.

- Footwear

Category of Skills	Skills
Core Skills	Tees Lasting, Sole Supporting, Sheet and Side Lasting, Dunlop, Buffing & Wiping, Baffling, Stuffing, Cement Cleaning, Heel Lasting
Allied Skills	Leather embroidery, Skiving, Hand padding, Color preparation, Dip dyeing and drum dyeing
Skills with acute shortage	Shoe last manufacturing, Quality and Testing

- Chemical and Chemical Products

²⁰⁶ KPMG Analysis

Category of Skills	Skills
Core Skills	Mechanical, Electrical skills
Allied Skills	Instrumentation, boiler attendant, AOC, lab attendants
Skills with acute shortage	MSc/BSc chemists, Electronic Automation with understanding of PLC systems

- Construction

Category of Skills	Skills
Core Skills	Electricians, carpenters, barbers, welders and masons
Allied Skills	Minimally skilled workers
Skills with acute shortage	Machine Operators

- Transportation and Logistics

Category of Skills	Skills
Core Skills	Heavy vehicle drivers, logistics management
Allied Skills	Administrative, computer data management
Skills with acute shortage	Scheduling and logistics planning

- Organized Retail

Category of Skills	Skills
Core Skills	Shop floor executives/supervisors, computer operator
Allied Skills	Transportation & logistics staff
Skills with acute shortage	Store management, stock planning

18.7.5 Human Resource Development in the District

18.7.5.1 Current State of Workforce Development

Jhajjar fares better than the state average of Haryana, in terms of penetration of higher education. However, the district faces a shortage of institutes imparting professional education.

Comparison of higher education infrastructure in the district with Haryana

Category of College	Haryana	Jhajjar
Arts, Science and Commerce	192	8
Engineering/Technology/Architecture	168	14
Medical (Allopathy/Dentistry/Homeopathy)	27	-
Education/Teacher training	472	30
Law	11	-
Others	17	1
Total	887	53
Density(Colleges per Thousand Population)	0.04	0.05

Source: Haryana Statistical Abstract 2011-12

The district also accounts for significantly high proportion of vocational education capacity in Haryana. Jhajjar has 11 ITI's (all but one being government funded). The accessibility of vocational education in Jhajjar is higher than state average.

Details of vocational education infrastructure in Jhajjar

District Wise ITI/ITC Infrastructure (2011)							
Region	Number			Sanctioned Intake			Density(Seats per Thousand Population)
	Govt ITI	Private ITI	Total	Govt ITI	Private ITI	Total	
Haryana	131	94	225	39140	12804	51944	2.05
Jhajjar	10	1	11	2884	104	2988	3.12

Source: Department of Industrial Training and Vocational Education, Haryana

The ITI Jhajjar offers a wide spectrum of 17 courses including COPA, Draughtsmen Civil, Electrician, Electronics Mechanic, Fitter (PPP), Machinist, Machinist Grinder, MCOECS, Mechanic Communication Equipment Maintenance, Mechanic Diesel, Mechanic Motor Vehicle, Painter General, Plastic Processing Operator, Stenography English, Stenography Hindi, Tuner, Welder (PPP) and Carpentry. In addition, the ITI also offers a CoE on Refrigeration and AC BBT Wireman. The ITI is also offers CoE on Electrical. Other government ITIs in the district offers a subset of these courses.

18.7.5.2 Youth Interaction Outcomes

The youth in the district of Jhajjar exhibited a higher preference towards employment over entrepreneurship. Several factors such as poor financial capacity, financial stability, work environment and socio-cultural factors seemed to influence youth preferences towards employment. They preferred government jobs over private jobs. In terms of private industry, there was a very high preference towards auto and auto components industry in particular. Since no such industry is present within the district, they were willing to migrate to Gurgaon / Manesar or Faridabad. However, youth expected entry level salaries to be upwards of INR 10,000 – 12,000 in order to migrate. However, their salary expectations were typically higher than industry offerings and hence a constraint on employment led mobility.

Awareness about career opportunities was observed to be low in the district. In terms of choice of education, there is a low -medium perception of vocational training. Students from weaker sections of the society, both economically and socially, are seen to opt for vocational courses over higher education programs, primarily due to financial constraints.

Source: Primary Discussion with local youth, ITI student and village sarpanchs

18.7.5.3 Other Skill Mapping and Developmental Concerns

Non availability of land and high labour cost in NCR has led to rise of industrial activities in nearby districts like Jhajjar in Haryana. The district is also facilitating this growth by providing good infrastructure to industry.

At present, there are several large scale industries which exist within the industry. Within these, certain industries like Relaxo Footwear have significant manpower (Approximately 1,000 people recruited every year) requirements on an annual basis). There is however, low preference in recruiting local youth due to lack of professionalism and high absenteeism. Further, the industry opined that the skilled youth in the district lacked even basic trade level and machine handling skills and need to be re-trained on the job.

There are also 250-300 units working as ancillaries to the large scale unit within district and growing at a rate of 10-15% per annum.

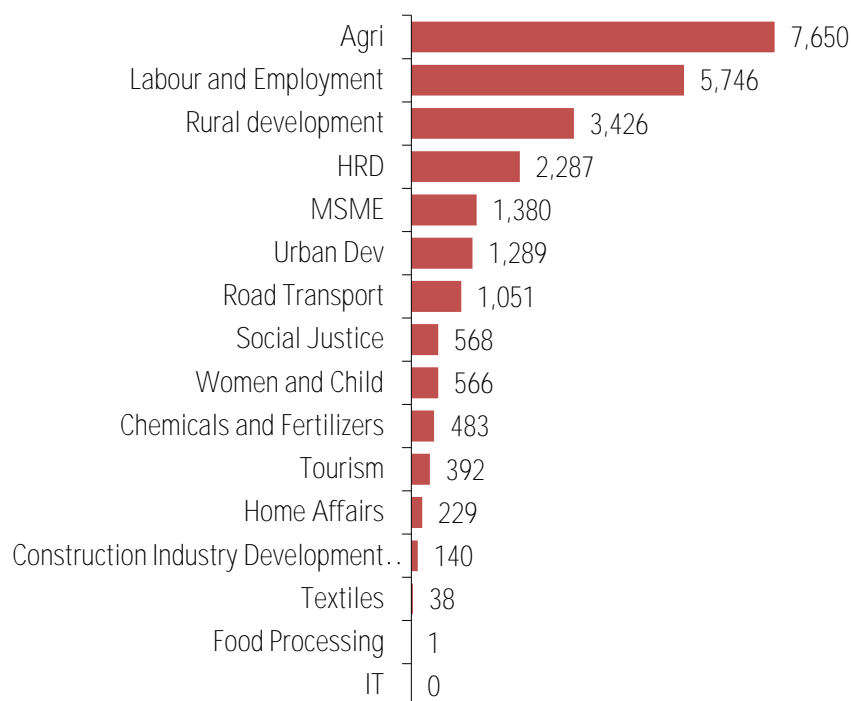
Inspite of growing industrial base, there was a general sense of oversupply of skilled manpower in the district from both demand and supply side. Further, the attrition rate in the district was high due to easy availability of opportunities in nearby NCR areas.

Source: Primary Discussion with industry representative, local youth, ITI students, village sarpanches and government officials

18.7.5.4 Incremental Training Capacity in the District through Government Endowments

According to KPMG estimates, based on the potential district budgetary allocation for various central government schemes, around 25 thousand people in total can be trained incrementally during the five year period of 2012-17. Ministry of Agriculture has significant training mandates in the district.

Potential Training Capacity in the district through Government Endowments (2012-17)



Source: KPMG Analysis, Training Plans as per various Ministries/ Departments / Organizations

18.7.6 District Specific Recommendations

Stakeholder	Action Points
NSDC	<p>Creating a favorable and positive skill environment in the district</p> <p>A majority of youth in the district continue to perceive 'skill acquisition' poorly and consider enrolling in an ITI/ITC in the region as a last resort. Awareness campaigns about benefit of acquiring vocational education at the village level in collaboration with NGOs and Community based organizations. Identify high-performing and motivated students and provide scholarships for higher education.</p> <p>Formal certifications for informally acquired skills</p> <p>A large number of people in the district are seen to be engaged in informal / micro /small scale sectors</p>

	<p>who have acquired their skills informally.</p> <p>The key areas of informal sector where workforce is engaged are Wood and Wooden based, Steel Fabrication and Leather based products. Targeted training interventions to be developed to upskill and certify those engaged in these areas</p>
<p>Skill Development Training Providers</p>	<p>Focus on soft skill training to students</p> <p>Attitude and professional conducts remains a major challenge amongst local youth. Targeted training modules for soft skills to be developed and imparted to students Facilitate camps to address behavioural and professional issue amongst students</p> <p>Introduction of industry relevant skills with focus on placements</p> <p>Jhajjar has few large scale units with significant annual manpower requirements. Relevant courses/modules aimed at these industries like arc welding, metal gas welding etc for Relaxo Footwear should be introduced within the district.</p>
<p>Industry</p>	<p>Information of industry labour needs</p> <p>Lack of adequate industry skill requirements create issue in imparting relevant training</p> <p>Industry associations / key players in the district should co-ordinate with employment exchange to publish employment requirements reports indicating clear skill requirements for the various job opportunities</p> <p>Periodical interaction with local skill development training providers to communicate any updates in skill requirements</p> <p>Support teacher training initiatives</p> <p>Industry should conduct teacher training programs from faculty from local institutes with an aim to improve quality of training delivery and relevance of pedagogy to industry</p>
<p>District Administration</p>	<p>Promote Skill Development in the District</p> <p>State and local government should promote vocational education as acceptable alternative to formal education. Campaigns and career counselling to promote dignity of labour and employability through skill training</p> <p>Career counselling, with information on skill development should be provided at school level itself.</p>

18.8 Skill Gap Assessment of Jind District

18.8.1. Administrative Profile

The Jind district is bordered by districts of Panipat, Karnal and Kaithal on its East and North-East. Its boundary line on the North forms the inter-state Haryana- Punjab border with Patiala and Sangur districts of Punjab. In the West and South-West it has a common boundary with district Hisar & Fatehabad and in its South and South-East lies the district of Rohtak and Sonapat respectively.

The area of district is 2,122 sq km, which accounts for 6.1 percent of the total share of state area²⁰⁷. Administratively, the district has been divided into three sub divisions (Jind, Safidon and Narwana); four tehsils (Jind, Safidon, Narwana and Julana) and seven blocks (Jind, Julana, Pillu Khera, Safidon, Uchana, Narwana and Alewa)

18.8.2. Social Profile

18.8.2.1. Demographics

As per Census 2011, the district has a population of 13.34 lakhs, contributing to 5.26 percent of the total state population. The district population has grown at a decadal growth rate of 12.13 percent in the period of 2001-11. The district has high share of rural population, with 77.18 percent²⁰⁸ of the population being rural.

The population density of the district standing at 494 persons per sq.km is much below the average, the state average beings 573 persons per sq.km²⁰⁹. The child gender ratio of Jind though low has gone up over the past ten years (increased from 818 females per 1000 males in 2001 to 835 females per 1000 males in 2011). The adult gender ratio fares only marginally better from 852 females per 1000 males in 2001, to 870 females per 1000 males in 2011, which is just below the state average of 877 females per 1000 males²¹⁰.

The scheduled caste population in the district is significantly higher than other districts of the state, occupying a share of 19.82 percent²¹¹ of total population, which is slightly higher than the state average of 19.35 percent. There are no Scheduled Tribes in Jind.

18.8.2.2. Literacy

The district literacy rate of 71.44 percent (up from 62.12 percent in 2001) is lower than the state average of 75.55 percent²¹². The gender disparity in education attainment levels is also prominent with a low female literacy rate of 60.76 percent when compared to the male literacy rate of 80.81 percent.

²⁰⁷Haryana State Statistical Abstract 2011-12

²⁰⁸http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

²⁰⁹http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

²¹⁰http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

²¹¹http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

²¹²http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

The school infrastructure is at par with the state average shown by the below benchmarking of Jind's School infrastructure with that of the state in terms of schools per thousand school going children.

Region	Primary Level	Middle Level	Secondary Level
Jind	5	9	3
Haryana	7	8	3

The number of schools at the middle level and secondary is almost at par with the general school infrastructure in the state. However at the primary level it is lower than the average of the state.

Number of recognized schools and student enrollments

Region	Primary Level	Middle Level	Secondary Level
Number of schools	684	131	390
Number of scholars	1,38,464	77,990	80,590

Source: Haryana Statistical Abstract 2011-12

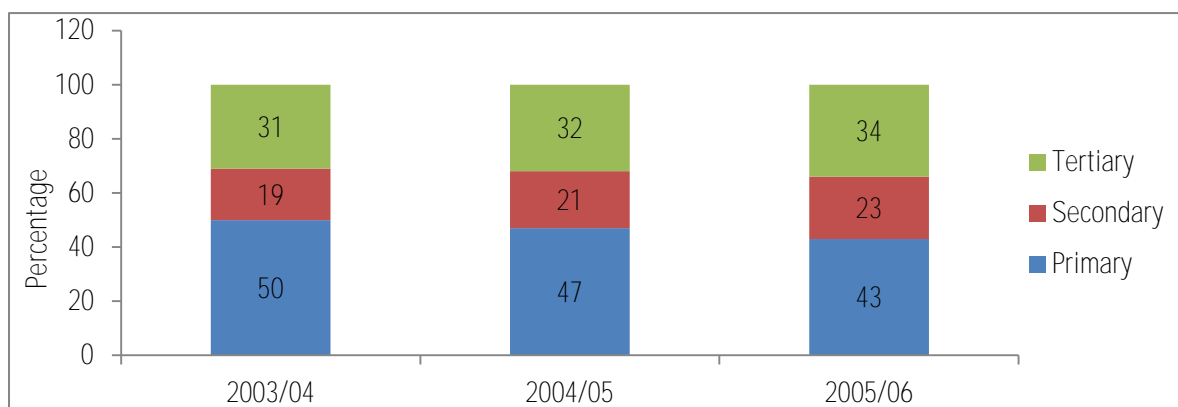
18.8.3. District Economy

The contribution of Jind to overall state economy is much smaller than the average share on population pro-rata basis. The per capita Income of INR 27,377 in comparison to state average of INR 32,712 in 2004-05 (At current prices)²¹³.

Jind's economy is powered by a number of small to medium sized businesses. The glass and paper industry is one of the major contributors to district GDDP. Steel products manufacturing and a cattle feed plant are also present in Jind. The contribution of the primary sector towards the district economy is higher than most districts in the state.

Sub-Sector wise GDDP trends

²¹³ <http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphbody.htm>



Source: Planning Commission, State Wise District Domestic Product (Data)

18.8.3.1. Agriculture and Allied sectors

Jind like many other districts in the country as well as the state is primarily an agrarian economy. Agriculture employs a majority of the working population. According to the census of 2001, a majority of the working population (66.45 percent) is employed in agriculture, up from 63.21 percent in 1991. In the year 2004-05, agriculture contributed a 45.45 percent of the district GDP compared to 24.39 percent²¹⁴ for the state. There is relatively high number of large land holdings indicate intensive and mechanized farming.

Composition of the land holding in the district benchmarked against the same for the overall state

Region	Below 1 Hectares	1-3 Hectares	3-5 Hectares	5-10 Hectares	Larger than 10 Hectares
Jind	37788	29387	12465	8893	3746
Haryana	7,78,142	4,89,777	1,79,665	1,23,898	45,829

Source: Haryana Statistical Abstract 2011-12

Agriculture is the backbone of the district as there are no industries to provide rural as well as urban employment. The majority of the population is engaged in agriculture. The major crops of the district are rice, wheat, bajra, cotton and sugarcane. The area under irrigation to net sown area is 93.3 percent, as against the state average of 84.1 percent²¹⁵. The irrigation intensity of the district is 145 percent as against the state average of 184.6 percent. Due to predominance of rice-wheat cropping pattern and dependence on ground water for irrigation, the whole district is categorized as 'over exploited' for ground water resource.

In the Jind district a good number of farmers are coming forward for cultivation of these crops. Availability of good planting material in horticulture and hybrid seed in vegetables production are limiting factor. The fish cultivation in the district Jind is done mainly in village community panchayat ponds.

²¹⁴ <http://www.crida.in/>

²¹⁵ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

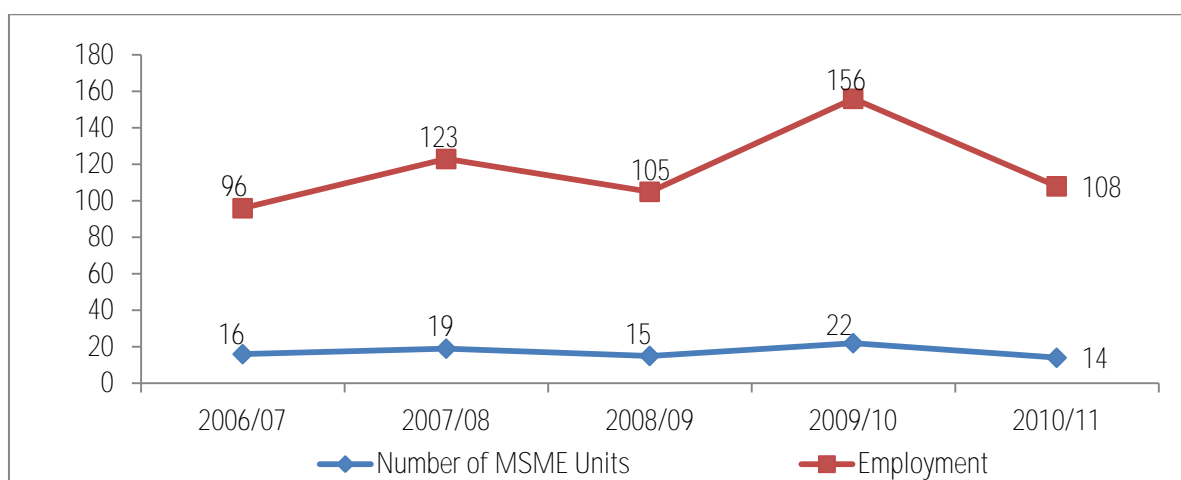
Dairying is one of the most important allied activities in Jind. The area of Jind/Hisar/Fatehabad procures 385.53 lakhs litres of milk which is the second highest in the state. The region also has a milk plant with a capacity of 2.1 lakhs litres per day and a milk chilling centre with a capacity of .5 lakhs litres per day²¹⁶.

18.8.3.2. Industry

Jind is not very well developed in terms of industry, as compared to other districts. Among Small Scale Industries Agro based, leather based, wood based, readymade garments, repairing service, engineering units and chemical based industries enjoy the highest investment and employ the maximum number of people.

As per 2011 provisional data, there are just 814 registered Industrial Units in the district employing 1542 workers in the medium and large industries segment²¹⁷. Between 2006-07 and 2011-12, Medium-Small Scale Industries segment has witnessed good growth generating additional employment during the period.

MSME growth trends in the district



Source: Brief Industrial profile of Jind District, MSME

Based on discussions with District Industries Center, following potential MSME growth clusters are identified in Jind district.

Existing Clusters	Clusters Identified for Promotion
-	Hatcheries and Meat Preservation

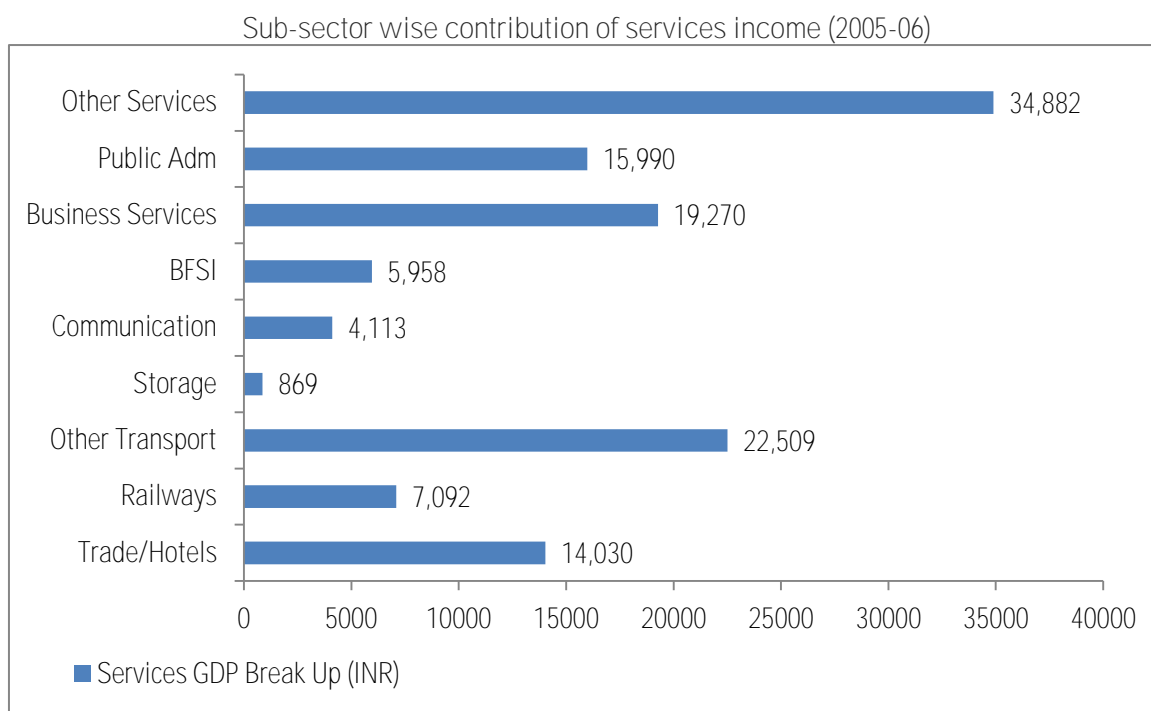
Source: Primary discussion District Industries Officer, Brief Industrial profile of Jind District, MSME

18.8.3.3. Services Sector

²¹⁶ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

²¹⁷ <http://dcmsme.gov.in/>

The share of service sector is only 33.73 percent²¹⁸ of GDDP in the year 2005-06. The sector has grown at a cumulative rate of 10.76 percent in the period between 2001-02 and 2005-06. Trade/Hotels, other services, Public administration, transport and business services are key services activities in Jind they enjoy a large share in the GDDP.



Source: Planning Commission, State Wise District Domestic Product Report

The penetration of healthcare facilities measured in terms of patients treated per bed, at 1640 per bed, is slightly higher than the state average of 1522 per bed.

The district has 28 PHCs and 7 CHCs along with 162 Sub centers with limited private participation²¹⁹. With an ever increasing population and fast paced industrial growth the district is expected to witness significant healthcare expenditure over the next decade.

Details of healthcare infrastructure in the district

Category	Number of Institutions
Allopathic Hospitals	3
Ayurvedic Institutions	26
Unani/Homeopathic Institutions	1
Primary Health Centers (PHCs)	28

²¹⁸<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

²¹⁹<http://nrhm-mis.nic.in/UI/RHS/RHS%202011/District-wise%20Health%20Centres.pdf>

Community Health Centers (CHCs)	7
Dispensaries	9
Total	74

Source: Haryana Statistical Abstract 2011-12

Jind has a poor penetration of banking and financial services measured as a percentage of GDDP at 1.59 percent in comparison to state average of 4.16 percent as per 2004-05 estimates. There are 81 commercial banks, 33 co operative and 5 rural banks in Jind. The credit deposit ratio for Jind is 113.80 percent which is higher than the state average of 102 percent.

18.8.4. Workforce Distribution in the district

18.8.4.1. Current Employment Scenario in Jind

The main worker participation rate of 33.62 percent in the district is higher than the state average number of 28.66 percent. The low participation rate is a concern for the industry.

Agriculture is the major source of livelihood with about 65 percent of the total work force employed in agriculture compared to 51.29 percent average for the state of Haryana²²⁰. Female work participation in the district is low in comparison to male work participation with only 36.56 percent of the working population being females, in line with the state level trend.

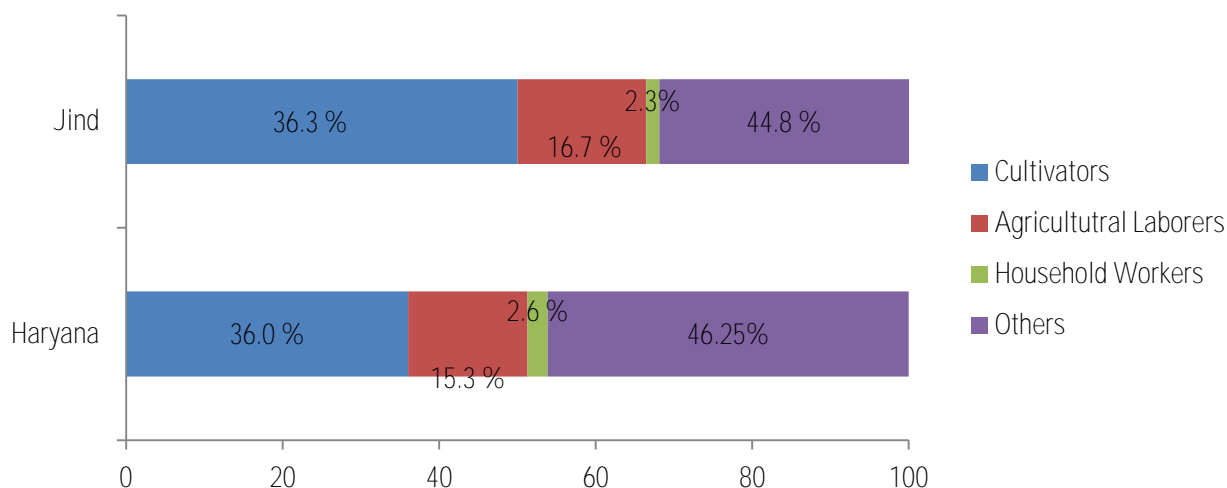
Region	Main Worker Participation	Marginal Worker Participation	Overall Non-Workers	Rural Non-Workers	Urban Non-Workers
Jind	33.62 %	14.21 %	50.06%	52.72%	43.53%
Haryana	28.66 %	10.10 %	50.36 %	33.83 %	16.52 %

High rate of marginal worker participation when compared to other parts of Haryana shows that the nature of occupation is seasonal and the disguised unemployment is high in the district.

Agriculture and allied sources being the major occupation reflects disguised unemployment in agriculture, especially considering the seasonal nature. Just above 50 percent of the total working population depends on agriculture, with a major share of cultivators this shows disguised unemployment of a major chunk of the population.

Distribution of Working Population in the district

²²⁰ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)



Source: Haryana Statistical Abstract 2011-12

18.1.4.15. Estimation of Supply of Manpower in the District

District wise incremental supply estimates were arrived at, based on Planning Commission Population Estimates from 2001 population considering birth rate, death rate and life expectancy normalized against population corrections in 2011.

State/ District	Labour Force Supply (2012-17)			Labour Force Supply (2017-22)		
	Gross Addition to Working Age Population	Gross Addition to Labour Force	Net Addition to Labour Force-Supply	Gross Addition to Working Age Population	Gross Addition to Labour Force	Net Addition to Labour Force-Supply
Haryana	2,648,032	1,273,703	727,206	2,421,060	1,164,530	496,173
Jind	139,356	87,016	49,681	127,411	79,558	33,897

Source: KPMG Analysis

18.1.4.16. Incremental Supply of Labour force in the District

District wise incremental supply estimates were arrived at based on Planning Commission Population Estimates from 2001 population considering birth rate, death rate and life expectancy normalized against population corrections in 2011.

Region	Supply 2012-17	Supply 2017-22
--------	----------------	----------------

	Skilled	Semi - Skilled	Minimally Skilled	Skilled	Semi-Skilled	Minimally skilled
Jind	13,591	3,614	32,475	9,273	2,466	22,158
Haryana	195,716	75,683	455,808	133,537	51,638	310,998

Source: KPMG Analysis

18.7.6.1 Incremental Manpower Requirement in the District

Incremental manpower requirement in the district of district has been estimated based on several parameters such as investments into various sectors in the district for the past 10 years, national level benchmarks on industrial growth across sectors, national inclusion targets for sectors such as banking and healthcare, employment generation potential of various sectors based on labour elasticity and market based insights from discussions with industries in district.

Sector wise skill level requirements during 2012-22

Sub Sectors	Jind					
	2012-17			2017-22		
	Skilled	Semi-skilled	Unskilled	Skilled	Semi-skilled	Unskilled
Agriculture & Allied Activities	-	-	(4,524)	-	-	(4,447)
Banking and Financial Services	350	1,049	-	358	1,074	-
Communication	252	756	-	256	769	-
Construction	868	1,735	14,750	772	1,545	13,132
Construction Based Material	235	941	1,176	287	1,148	1,435
Education and Training	50	336	-	50	336	-
Food Processing	102	396	577	132	513	748
Healthcare	964	3,856	-	1,014	4,057	-
Hospitality	25	37	187	22	34	168
Retail	809	809	6,475	725	725	5,801
Textiles	23	90	113	33	132	165

Transportations and Logistics	328	5,211	6,200	406	6,453	7,677
Total	4,054	15,413	25,203	4,110	16,999	24,951

Please note that only the industries with significant manpower demand have been individually highlighted in the table.
Source: KPMG Analysis

Skill requirements in key growth sectors have been analyzed based on industry interactions to understand the detailed manpower needs. Sector level skill interventions are indicated in the section below²²¹.

- Food Processing

Category of Skills	Skills
Core Skills	Fitter, Electrician, Wireman, Instrumentation, Lab Technician
Allied Skills	Instrumentation, Packaging (Jar, Pouch) Operator, AOCP, Lab Attendant, Boiler Operator, QC Chemists, STP, ETP Operators
Skills with acute shortage	Extruder, Boiler Operators, PPO is required in industries having in house packing development

- Construction

Category of Skills	Skills
Core Skills	Electricians, carpenters, barbenders, welders and masons
Allied Skills	Minimally skilled workers
Skills with acute shortage	Machine Operators

- Transportation and Logistics

Category of Skills	Skills
Core Skills	Heavy vehicle drivers, logistics management

²²¹ KPMG Analysis

Allied Skills	Administrative, computer data management
Skills with acute shortage	Scheduling and logistics planning

- Organized Retail

Category of Skills	Skills
Core Skills	Shop floor executives/supervisors, computer operator
Allied Skills	Transportation & logistics staff
Skills with acute shortage	Store management, stock planning

18.8.5. Human Resource Development in the District

18.8.5.1. Current State of Workforce Development

Jind is home to a number of institutes of higher education but still has a lower penetration of colleges in comparison to state average for Haryana. Jind has as many as six colleges three of which are government colleges and the rest privately managed. Jind also has four engineering colleges and four teacher training centres.

Jind is unique in the fact that there are six institutions that impart Sanskrit knowledge and prepare students for examinations in Sanskrit studies.

Comparison of higher education infrastructure in Jind with Haryana

Category of College	Haryana	Jind
Arts, Science and Commerce	192	12
Engineering/Technology/Architecture	168	4
Medical (Allopathy/Dentistry/Homeopathy)	27	-
Education/Teacher training	472	25
Law	11	-
Others	17	19

Total	887	60
Density(Colleges per Thousand Population)	0.04	0.01

Source: Haryana Comprehensive Statistics 2011-12

The district also accounts for significantly high proportion of vocational education capacity in Haryana. Jind has 10 polytechnic institutes and 10 ITIs (both private and government). The district Jind also has nine computer centres which impart training in computer applications. Accessibility of vocational education in Jind is good but the penetration is lower than the state average.

Details of vocational education infrastructure in Jind

District Wise ITI/ITC Infrastructure (2011)							
	Number			Sanctioned Intake			Density(Seats per Thousand Population)
Region	Govt ITI	Private ITI	Total	Govt ITI	Private ITI	Total	
Haryana	131	94	225	39140	12804	51944	2.05
Jind	7	3	10	2064	508	2572	1.93

Source: Department of Industrial training and Vocational Education, Haryana

The ITI Jind offers a wide spectrum of 20 courses including COPA, Cutting & Sewing, Draughtsmen Mechanical, Electrician, Electronics Mechanic, Fitter, Machinist, MCOECS, Mechanic Diesel, Mechanic Refrigeration & AC, Painter General, Plumber, Stenography English, Stenography Hindi, Turner, Welder, Wireman, Dress Making, Mechanic Tractor and Carpenter. The ITI is also offers CoE on Electrical. Other government ITIs in the district offers a subset of these courses.

18.8.5.2. Youth Interaction Outcomes

Youth in the district exhibited a high preference towards employment over entrepreneurship/ self employment. Within employment, there was high inclination to work for government jobs owing to better job security and employment benefits. With private sector, the youth aspired to join Branded Automobile companies like Honda, Maruti and Toyota.

The youth exhibited willingness to migrate for entry level salary of INR 8,000-10,000 per month. However, the average salaries offered to the ITI students was around INR 5,000- 6,000 per month, which was not sufficient to encourage mobility.

There was low awareness about career opportunities amongst local youth and more interventions in this front were warranted.

Source: Primary Discussion with local youth, ITI student and village sarpanchs

18.8.5.3. Other Skill Mapping and Developmental Concerns

The district has limited large and medium scale industrialization. Lack of electricity is a deterrent for the industrial growth in the region. There was also limited thrust in propelling large scale industrial growth in the district.

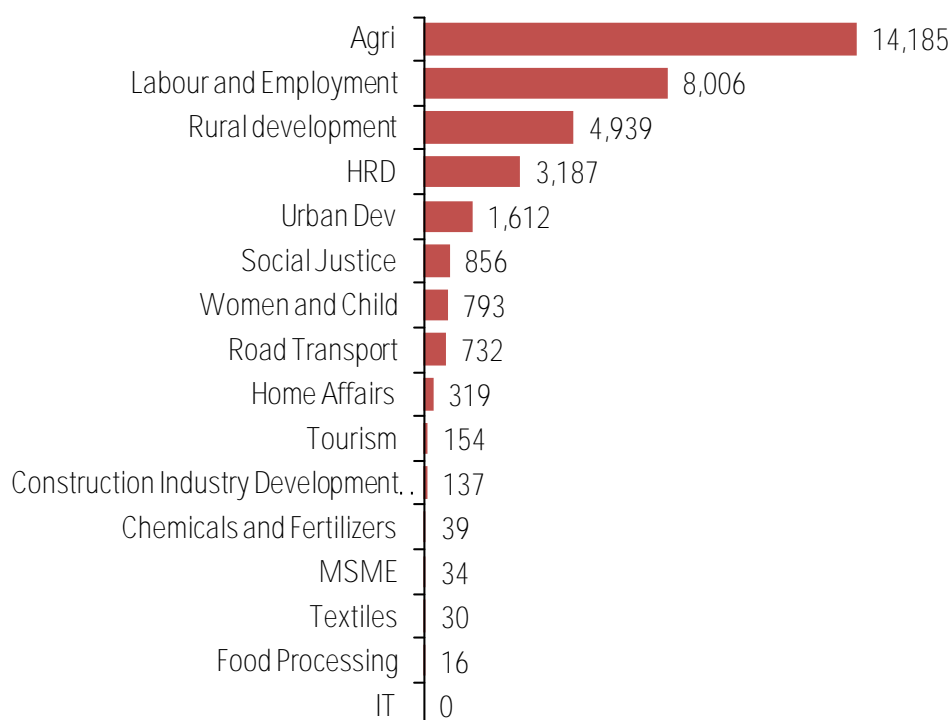
There is a good scope of small and medium scale industries like Hatcheries, Meat Preservation, Rice Shellars, Dal and oil mills, Agriculture implants, Polyhouse and Welding. Khes manufacturing was also coming up in the district.

Source: Primary Discussion with District Industries Officer, Industry Representative, local youth, ITI student and village sarpanchs

18.8.5.4. Incremental Training Capacity in the District through Government Endowments

According to KPMG estimates, based on the potential district budgetary allocation for various central government schemes, around 35 thousand people in total can be trained incrementally during the five year period of 2012-17. Ministry of Agriculture has significant training mandates in the district.

Potential Training Capacity in the district through Government Endowments (2012-17)



18.8.6. District Specific Recommendations

Stakeholder	Action Points
NSDC	<p>Creating a favorable and positive skill environment in the district</p> <p>A majority of youth in the district continue to perceive ‘skill acquisition’ poorly and consider enrolling in an ITI/ITC in the region as a last resort.</p> <p>Awareness campaigns about benefit of acquiring vocational education at the village level in collaboration with NGOs and Community based organizations. Identify high-performing and motivated students and provide scholarships for higher education.</p> <p>Align youth aspiration to local industry demand</p> <p>They key large and medium scale industries in the district are Agro based or Textiles and Guar Gum. However, in terms of youth aspirations are Tier 1 branded corporate in Automobiles, Mechanical and FMCG industries. This mismatch remains a critical factor contributing to large skill gap in the district</p> <p>Undertake campaigns with an aim promote local industries</p> <p>Set up counselling and career guidance camps to inform about the employment opportunities</p>
Skill Development Training Providers	<p>Focus on soft skill training to students</p> <p>Attitude and professional conducts remains a major challenge amongst local youth. Targeted training modules for soft skills to be developed and imparted to students. Facilitate camps to address behavioural and professional issue amongst students</p>
Industry	<p>Support teacher training initiatives</p> <p>Industry should conduct teacher training programs from faculty from local institutes with an aim to improve quality of training delivery and relevance of pedagogy to industry</p>
District Administration	<p>Facilitate women participation in skill development</p> <p>Facilitate formation of SHG’s which will involve more women with an aim to empower</p>

Focus on training in agricultural products and processing

There is a high dependence on primary sector in the district. However, most of the farmers are still engaged in traditional crops and have low awareness about new crops (Fruits and vegetables) or opportunities farm mechanization

Facilitate trainings to apprise farmers about new agro and food processing opportunities, benefits of farm mechanization etc

18.9 Skill Gap Assessment of Kaithal District

18.9.1. Administrative Profile

Kaithal was created on the 1st of November, 1989. It is bordered Punjab to the North West, Kurukshetra in the north, Jind in the south and Karnal in the east. The area of district is 2317 sq km, which accounts for 5.2 percent of the total share of state area²²².

Administratively, the district has been divided into two sub divisions (Kaithal and Guhlai); four tehsils (Kaithal, Guhla, Fatehpur Pundri and Dhand) and six blocks (Kaithal, Pundri, Kalayat, Rajound and Siwan).

18.9.2. Social Profile

18.9.2.1. Demographics

As per Census 2011, Kaithal has a population of 10.74 lakhs, contributing to 4.24 percent of the total state population. The district population has grown at a decadal growth rate of 13.55 percent in the period of 2001-11

A majority of the population in the district is rural in nature, 78.03 percent²²³ (down from 80.61 % in 2001). The population density of the district at 464 persons per sq. km. is lower being than the state average of 573 persons per sq.km²²⁴.

The child gender ratio is low at 828 females per 1000 males in 2011 to. However, the adult gender ratio fares better in the district and has improved from 853 females per 1000 males in 2001, to 881 females per 1000 males in 2011²²⁵. The adult gender ratio of the district is better than the state average of 877 females per 1000 males.

The reserved category population of Kaithal stands at 21.55 % of the total population of the district the average for Haryana is 19.35 percent. The estimated main working population for Kaithal was 28.34 % of the population in 2001.

18.9.2.2. Literacy

It is estimated that 69.15 percent of the total population of Kaithal is literate, but the female literacy is considerably lower at 59.29 percent. The male literacy rate is much higher at 77.98 percent compared to the female literacy rate of 59.24 percent. The average literacy rate for the state Haryana is 75.55 %.

There is lower than average literacy rate despite the fact that the school infrastructure indicated by number of schools per thousand school going children is roughly at par with the state at all three levels of school education. The low literacy rate can primarily be attributed to low enrolment among girl students.

²²²Haryana State Statistical Abstract 2011-12

²²³http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

²²⁴http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

²²⁵http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

Number of Schools per Thousand School Going Children in Kaithal against that of Haryana

Region	Primary Level	Middle Level	Secondary Level
Kaithal	7	9	2
Haryana	7	8	3

Number of recognized schools and student enrolments in Kaithal

Region	Primary Level	Middle Level	Secondary Level
Number of schools	605	125	266
Number of scholars	102913	15297	127137

Source: Haryana Statistical Abstract 2011-12

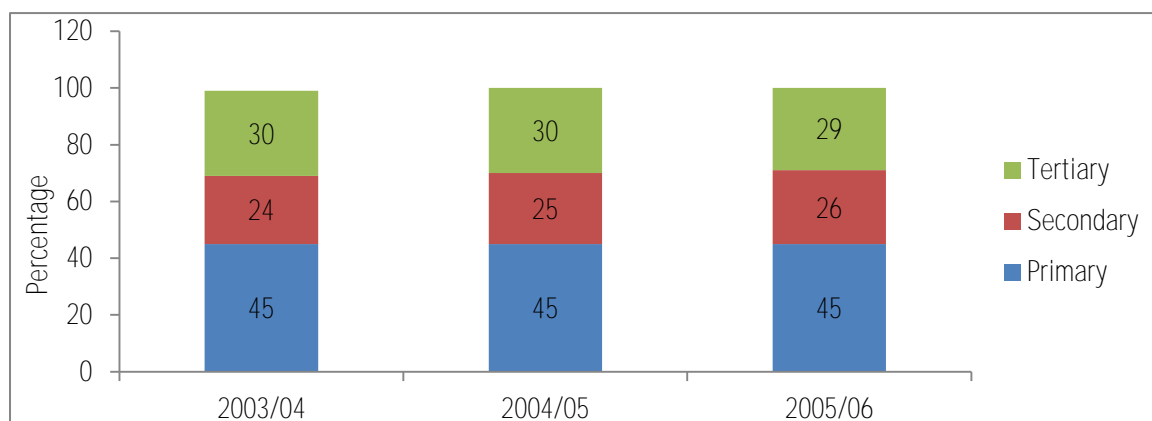
18.9.3. District Economy

The contribution of Kaithal to overall state economy is lower than the expected share on population pro-rata basis - as evident from lower Per Capita Income of INR 28773²²⁶ in comparison to state average of INR 32712 in 2004-05 (At current prices).

While the contribution of services sector is highest among sub-sectors in the district, dependency on agriculture is high in terms of number of people engaged considering the low productivity in these activities. Sub-Sector wise GDDP trends in Kaithal are presented in the chart.

Sub-Sector wise GDDP break up for Kaithal District

²²⁶ <http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphbody.htm>



Source: Planning Commission, State Wise District Domestic Product (Data)

18.9.3.1. Agriculture and allied sectors

Agriculture being the backbone of the district economy sees varied and diversified agricultural practices compared to other parts of the state. In the year 2004-05, Agriculture contributed to 44.23 percent of the district GDP, compared to 24.39 percent²²⁷ for the state.

The farming community is also more progressive as shown by the larger number of large scale farmers and higher average land holding size. The composition of the land holding in the district is shown below benchmarked against the same for the overall state²²⁸.

Composition of the land holding in the district benchmarked against the same for the overall state

Region	Below 1 Hectares	1-3 Hectares	3-5 Hectares	5-10 Hectares	Larger than 10 Hectares
Kaithal	31357	21256	8526	6812	3522
Haryana	7,78,142	4,89,777	1,79,665	1,23,898	45,829

Source: Haryana Statistical Abstract 2011-12

The total cultivable area in Kaithal is 2.02 lakh hectare out of which 2.01 is cultivated. Around 1 lakh hectare of the land is irrigated by canals, tube wells is the other source of irrigation. Total irrigated land stands at 1.98 lakh hectares²²⁹. The main crops of the district are paddy in Kharif and wheat in Rabi followed by a very little under Desi Cotton Bajra and Sugarcane.

The installation of a sugar mill has given impetus to sugarcane farming in the region as farmers are increasingly looking towards covering more area for sugarcane plantation. During the past few years the farmers have also planted sugarcane

²²⁷ <http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphbody.htm>

²²⁸ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

²²⁹ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

crops with the help of the agriculture department as an aid crop but due to its marketing problem the farmers are again reverting back to wheat in the month of November.

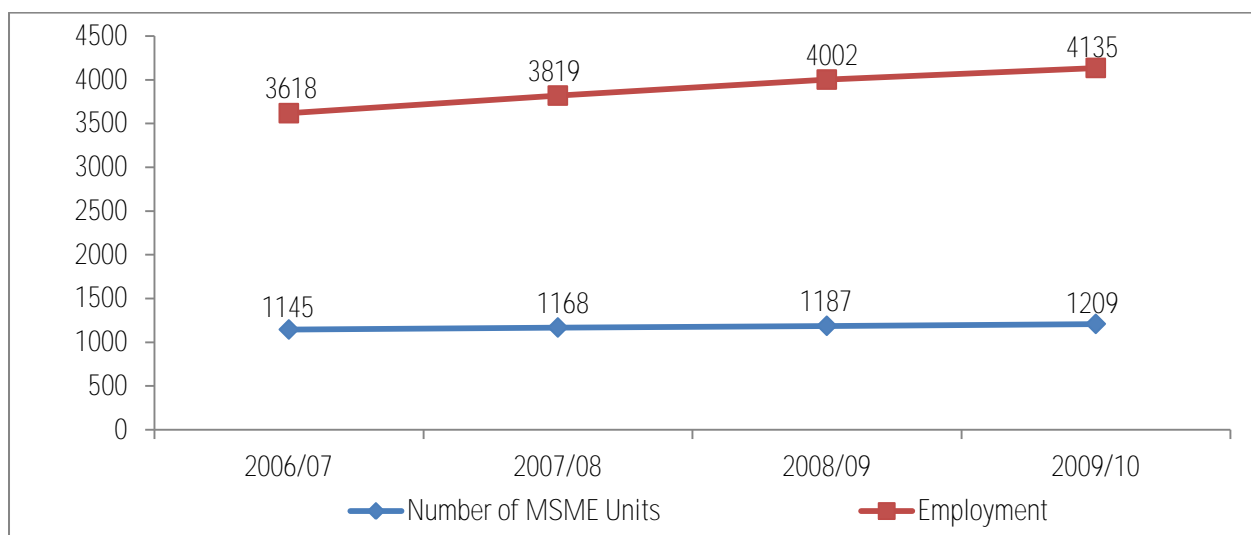
Other allied businesses in Kaithal include Dairying, poultry farming and animal husbandry. Area under forest for Kaithal is 7.08 square km per lakh of population which is greater than the average of 6.64 sq km per lakh of population²³⁰.

18.9.3.2. Industry

Kaithal is primarily an agrarian district with limited industrial growth. There is no focal point or industrial infrastructure developed by the authorities and hence there is an urgent need for the stakeholders to create relevant focused industrial eco-system.

There are 1,449 registered industrial units in Kaithal employing a total of 5,717 daily workers. This sector is led by the repairing and servicing with 342 units, employing 605 people followed by agro industry, wood based industry and engineering industry which employ 2226, 779 and 511 people respectively. The total investment for the period of 1984 to 2011 is around INR 5536.17 lakh²³¹. The number of registered units for the years 2002-2007 was very low compared to the period just after and before the said years. The sector has somewhat gained momentum after the period of 2006-07²³².

MSME growth trends in Kaithal district



Source: Brief MSME Industrial Profile, Kaithal District

Based on discussions with District Industries Center, following potential MSME growth clusters are identified in Kaithal district.

Existing Clusters	Clusters Identified for Promotion
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²³⁰ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

²³¹ <http://dcmsme.gov.in/>

²³² <http://dcmsme.gov.in/>

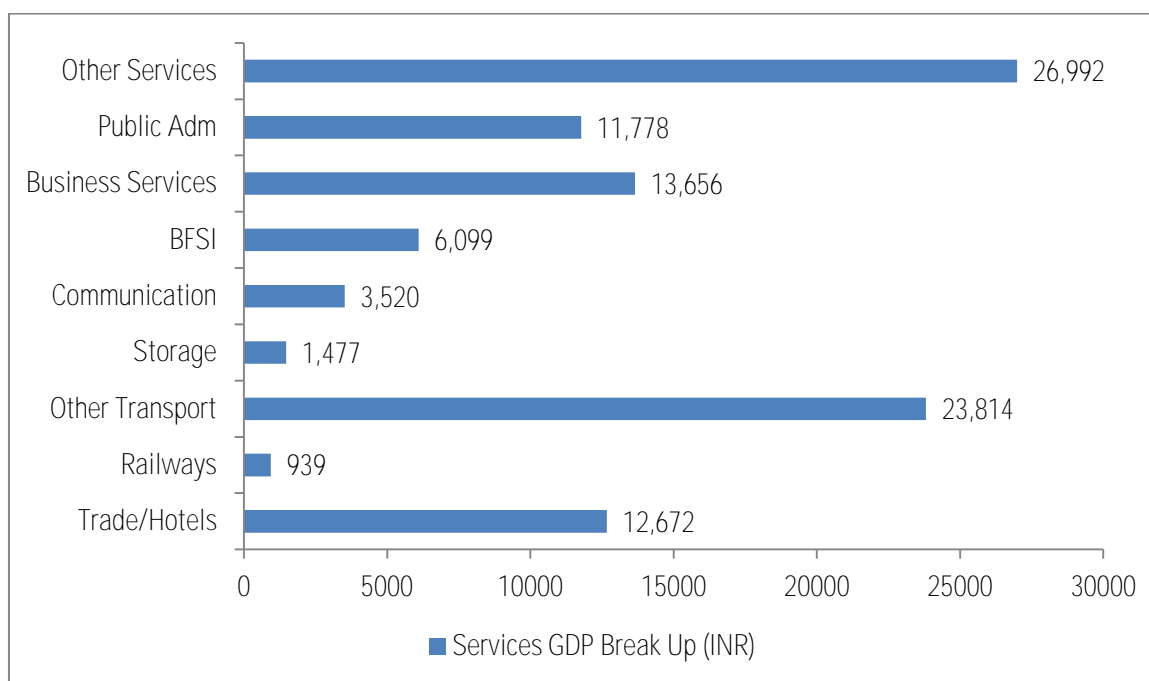
<ul style="list-style-type: none"> • Foundry Cluster • Ferrous products Cluster 	<ul style="list-style-type: none"> • Food Processing
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Source: Primary Discussion with DIC, Brief MSME Industrial Profile, Kaithal District

18.9.3.3. Services Sector

Service sector contributed to 29 percent²³³ of GDDP in the year 2005-06. Sector has grown at a cumulative rate of 9.99 percent in the period between 2001-02 and 2005-06. Business Services Transport and Hotels are the key services activities in Kaithal. Sub-sector wise contribution of services income is presented in the chart. Small scale industries like Coaching and auto repair are increasingly gaining ground.

Sub-sector wise contribution of services income (2005-06)



Source: Planning Commission, State Wise District Domestic Product (Data)

Penetration of healthcare facilities measured in terms of patients served per bed, at 2231 per bed is way off the state average of 1522 per bed. District has 23 PHCs and 6 CHCs along with 143 Sub centers with limited private participation²³⁴. Considering limited availability of healthcare facilities within the district, the district is expected to witness significant Government healthcare expenditure over the next decade.

²³³<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

²³⁴<http://nrhm-mis.nic.in/UI/RHS/RHS%202011/District-wise%20Health%20Centres.pdf>

Details of healthcare infrastructure in the district

Category	Number of Institutions
Allopathic Hospitals	1
Ayurvedic Institutions	20
Unani Institutions	1
Primary Health Centers (PHCs)	23
Community Health Centers (CHCs)	6
Dispensaries	2
Total	53

Source: Haryana Statistical Abstract 2011-12

Kaithal has low penetration of banking and financial services measured as a percentage of GDDP at 1.77 percent in comparison to state average of 4.16 percent as per 2004-05 estimates²³⁵. Kaithal being primarily an agriculture and small industry based economy sees presence of mainly public sector banks and small cooperative banks with no presence of new age private and foreign banks.

18.9.4. Workforce Distribution in the district

18.9.4.1. Current Employment Scenario in Kaithal

Main Work participation rate of 28.34% in the district is just below the state average number of 28.66 % indicating the limited proliferation of industry and overdependence on the primary sector²³⁶. Agriculture is the major source of livelihood. Female work participation in the district is low in comparison to male work participation, in line with the state level trend.

Region	Main Worker Participation	Marginal Worker Participation	Overall Non-Workers	Rural Non-Workers	Urban Non-Workers
Kaithal	28.34 %	10.98 %	53.45%	77.63%	22.37%
Haryana	28.66 %	10.10 %	50.36%	33.83%	16.52%

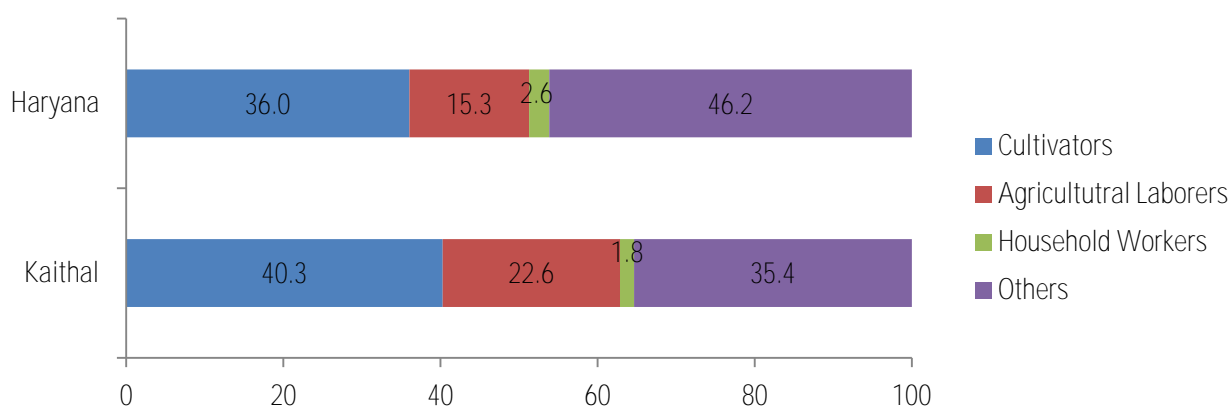
²³⁵ <http://dcmsme.gov.in/>

²³⁶ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

Source: Haryana Statistical Abstract 2011-12

Agriculture and allied sources being the major occupation reflects disguised unemployment in agriculture, especially considering the seasonal nature. Over 60 percent of total working population depends on agriculture, with a major share of Agricultural Laborers²³⁷.

Distribution of Working Population in Kaithal



Source: Haryana Statistical Abstract 2011-12

18.1.4.17. Estimation of Supply of Manpower in the District

District wise incremental supply estimates were arrived at, based on Planning Commission Population Estimates from 2001 population considering birth rate, death rate and life expectancy normalized against population corrections in 2011.

State/ District	Labour Force Supply (2012-17)			Labour Force Supply (2017-22)		
	Gross Addition to Working Age Population	Gross Addition to Labour Force	Net Addition to Labour Force-Supply	Gross Addition to Working Age Population	Gross Addition to Labour Force	Net Addition to Labour Force-Supply
Haryana	2,648,032	1,273,703	727,206	2,421,060	1,164,530	496,173
Kaithal	112,214	55,895	31,913	102,596	51,104	21,774

Source: KPMG Analysis

18.1.4.18. Incremental Supply of Labour force in the District

²³⁷ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

District wise incremental supply estimates were arrived at based on Planning Commission Population Estimates from 2001 population considering birth rate, death rate and life expectancy normalized against population corrections in 2011.

Region	Supply 2012-17			Supply 2017-22		
	Skilled	Semi - Skilled	Minimally Skilled	Skilled	Semi-Skilled	Minimally skilled
Kaithal	6,796	2,499	22,618	4,637	1,705	15,432
Haryana	195,716	75,683	455,808	133,537	51,638	310,998

Source: KPMG Analysis

18.7.1.1 Incremental Manpower Requirement in the District

Incremental manpower requirement in the district of district has been estimated based on several parameters such as investments into various sectors in the district for the past 10 years, national level benchmarks on industrial growth across sectors, national inclusion targets for sectors such as banking and healthcare, employment generation potential of various sectors based on labour elasticity and market based insights from discussions with industries in district.

Sector wise skill level requirements during 2012-22

	Kaithal					
	2012-17			2017-22		
	Skilled	Semi-skilled	Unskilled	Skilled	Semi-skilled	Unskilled
Sub Sectors						
Agriculture & Allied Activities	-	-	(2,594)	-	-	(2,550)
Banking and Financial Services	431	1,292	-	441	1,323	-
Communication	216	647	-	219	658	-
Construction	512	1,023	8,696	455	911	7,742
Construction Based Material	29	117	147	36	143	179
Education and Training						

	331	2,229	-	48	324	-
Fabricated metal products	21	82	103	20	80	100
Food Processing	63	244	355	81	316	460
Healthcare	925	3,701	-	891	3,565	-
Hospitality	25	37	187	22	34	168
Retail	809	809	6,475	725	725	5,801
Transportations and Logistics	324	5,142	6,118	401	6,367	7,575
Total	3,706	15,407	19,598	3,366	14,545	19,608

Please note that only the industries with significant manpower demand have been individually highlighted in the table.
Source: KPMG Analysis

Skill requirements in key growth sectors have been analyzed based on industry interactions to understand the detailed manpower needs. Sector level skill interventions are indicated in the section below²³⁸.

- Food Processing

Category of Skills	Skills
Core Skills	Fitter, Electrician, Wireman, Instrumentation, Lab Technician
Allied Skills	Instrumentation, Packaging (Jar, Pouch) Operator, AOCP, Lab Attendant, Boiler Operator, QC Chemists, STP, ETP Operators
Skills with acute shortage	Extruder, Boiler Operators, PPO is required in industries having in house packing development

²³⁸ KPMG Analysis

- Construction

Category of Skills	Skills
Core Skills	Electricians, carpenters, barbenders, welders and masons
Allied Skills	Minimally skilled workers
Skills with acute shortage	Machine Operators

- Transportation and Logistics

Category of Skills	Skills
Core Skills	Heavy vehicle drivers, logistics management
Allied Skills	Administrative, computer data management
Skills with acute shortage	Scheduling and logistics planning

- Organized Retail

Category of Skills	Skills
Core Skills	Shop floor executives/supervisors, computer operator
Allied Skills	Transportation & logistics staff
Skills with acute shortage	Store management, stock planning

18.9.5. Human Resource Development in the District

18.9.5.1. Current State of Workforce Development

Overall, the penetration of higher education in Kaithal is lower than the state average.

Comparison of higher education infrastructure in Kaithal with Haryana

Category of College	Haryana	Kaithal
Arts, Science and Commerce	192	11

Engineering/Technology/Architecture	168	3
Medical (Allopathy/Dentistry/Homeopathy)	27	-
Education/Teacher training	472	15
Law	11	-
Others	17	1
Total	887	30
Density(Colleges per Thousand Population)	0.04	0.03

Source: Haryana Statistical Abstract 2011-12

The contribution of the district is low when compared to the state average in the vocational training infrastructure. Kaithal has a total of 11 Industrial Training Institutes.

Details of vocational education infrastructure in Kaithal

District Wise ITI/ITC Infrastructure (2011)							
Region	Number			Sanctioned Intake			Density(Seats per Thousand Population)
	Govt ITI	Private ITI	Total	Govt ITI	Private ITI	Total	
Haryana	131	94	225	39140	12804	51944	2.05
Kaithal	7	4	11	728	416	1144	1.06

Source: Department of Industrial training and Vocational Education, Haryana

ITI Kaithal offers wide spectrum of 20 courses including carpentry, COPA, Draughtsman Civil, Dress Making, Electrician, Electronics mechanics, Fitter, Electronics Mechanic, MCOECS, Mechanic Motor Vehicle, Mechanic Ref. & Air conditioning, mechanic tractor, painter general, plumber, stenography English, stenography Hindi, turner, welder, and wireman. The other ITIs offer a subset of these courses.

18.9.5.2. Youth Interaction outcomes

The youth in the district exhibited a high preference towards employment over entrepreneurship. Several factors such as poor financial capacity, work environment and socio-cultural factors influenced youth preferences towards employment.

The youth in the district were open to migration to other districts in Haryana or other states, but expect a minimum salary of INR 15,000 per month to cover the expense at the new location.

Overall the perception of vocational education in the district was better than other districts of Haryana.

Source: Primary Discussion with local youth, ITI student and village sarpanchs

18.9.5.3. Other Skill Mapping and Developmental Concerns

Kaithal has only one large scale unit in the district which is a sugar mill. The large scale unit has attracted ancillary MSME units supplying casting, machined products etc.

The other key industries in the districts consist of paddy, cotton seeds, wheat, Rice mill, Oil mill, washing soap and food processing. Of these, food processing units have high potential in the district.

In terms of micro and small units, almost half of the employment is generated by agro based units alone.

While, there are castings product cluster in the district, comprising of over 25 functional units and having a total employment of over 800.

Source: Primary Discussion with industry representatives, ITI Principal and Teachers

18.9.5.4. Incremental Training Capacity in the District through Government Endowments

According to KPMG estimates, based on the potential district budgetary allocation for various central government schemes around 39 thousand people in total can be trained incrementally during the five year period of 2012-17. Ministry of Agriculture has significant training mandates in the district.

Potential Training Capacity in Kaithal during 2012-17



Source: KPMG Analysis, Training Plans as per various Ministries/ Departments / Organizations

18.9.6. District Specific Recommendations

Stakeholder	Action Points
NSDC	<p>Formal certifications for informally acquired skills</p> <p>A large number of people in the district are seen to be engaged in informal / micro /small scale sectors who have acquired their skills informally.</p> <p>The key areas of informal sector where workforce is engaged are Agro Based units. Targeted training interventions to be developed to upskill and certify those engaged in these areas</p>
Skill Development Training Providers	<p>Introduction of industry relevant skills with focus on placements</p> <p>Kaithal consists of a casting cluster which comprises of almost 25 functional units and generating significant employment requirements on an annual basis. However, the local skill training institutes do not cater to relevant courses for these units.</p> <p>Relevant courses/modules aimed at casting industry like testing facilities, CNC machine operators should be developed.</p>
Industry	<p>Support teacher training initiatives</p> <p>Agro Based / Food Processing industries comprises of significant share of number of industries in the district. The large scale industry in this sector should support training programs for the relevant skills.</p> <p>Industry should conduct teacher training programs from faculty from local institutes with an aim to</p>

improve quality of training delivery and relevance of pedagogy to industry

Short-term courses

For less skill intensive jobs in sectors such as food processing and construction, which have shown steady growth in the district, industry may up-skill existing workers and skill potential candidates through partnerships with local NGOs or training providers.

The industry can partner with local NGOs and training providers to engage in community outreach to raise awareness about skill development and Offer short-term training courses to equip students with the basic skills required for the industry.

Facilitate women participation in skill development

The female literacy rate in the district is significantly lower than the male literacy in the district and hence there is need for intervention in this regard.

Facilitate formation of SHG's which will involve more women with an aim to empower

District
Administration

Focus on training in agricultural products and processing

There is a high dependence on primary sector in the district. However, most of the farmers are still engaged in traditional crops and have low awareness about new crops (Fruits and vegetables) or opportunities farm mechanization

Facilitate trainings to apprise farmers about new agro and food processing opportunities, benefits of farm mechanization etc

18.10 Skill Gap Assessment of Karnal District

18.10.1. Administrative Profile

Karnal is bordered by Kurukshetra and Kaithal to the west, Yamunanagar to the north, Uttar Pradesh to the east and Panipat to the south. The area of district is 2520 sq km, which accounts for 5.7 percent of the total share of state area²³⁹.

Administratively, the district has been divided into three sub divisions (Karnal, Assandh and Indri); five tehsils (Karnal, Assandh, Nilokheri, Indri and Gharaunda) and six blocks (garaunda, Indri, Karnal, Nilokheri, Nissing at Chirao and Assandh).

18.10.2. Social Profile

18.10.2.1. Demographics

As per Census 2011, Karnal has a population of 15.05 lakhs, contributing to 5.94 percent of the total state population. The district population has grown at a decadal growth rate of 18.14 percent in the period of 2001-11.

A majority of the population in the district is rural in nature, 69.79 percent²⁴⁰. The population density of the district standing at 597 persons per sq.km, is higher than the state average of 573 persons per sq.km²⁴¹.

While the child gender ratio has shown mild positive trend (increased from 809 females per 1000 males in 2001 to 820 females per 1000 males in 2011), there has been a more defined increase in the adult gender ratio from 865 females per 1000 males in 2001, to 886 females per 1000 males in 2011²⁴² this is slightly higher than the state average of 877 females per 1000 males.

Reserved categories population in the district is significant, occupying a share of 20.99 percent²⁴³ of total population which is marginally higher than the state average of 19.35 percent.

18.10.2.2. Literacy

The district literacy rate of 72.99 percent (up from 64.84 percent in 2001) is slightly below the state average of 75.55 percent²⁴⁴.

The gender disparity in education attainment levels is prominent with a low female literacy rate of 64.64 percent. The male literacy rate is much higher at 80.89 percent.

²³⁹Haryana State Statistical Abstract 2011-12

²⁴⁰http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

²⁴¹http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

²⁴²http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

²⁴³http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

²⁴⁴http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

The school infrastructure at the primary level is a key concern since it is not at par with the state average shown by the below benchmarking of Karnal's School infrastructure with that of the state in terms of schools per thousand school going children. The district however has shown a better indicator at the middle and secondary level.

Number of Schools per Thousand School Going Children in Karnal benchmarked against that of Haryana

Region	Primary Level	Middle Level	Secondary Level
Karnal	4	9	2
Haryana	7	8	3

Number of recognized schools and student enrolments in Karnal

Region	Primary Level	Middle Level	Secondary Level
Number of schools	808	218	414
Number of scholars	33588	66591	184236

Source: Haryana Statistical Abstract 2011-12

18.10.3. District Economy

The contribution of Karnal to overall state economy is higher than the average share on population pro-rata basis - as evident from higher Per Capita Income of INR 38,593²⁴⁵ in comparison to state average of INR 32,712 in 2004-05 (At current prices).

This is mainly because of Karnal's pre eminent position in the export of Basmati rice (mainly to Gulf Countries), Karnal is also a major producer of Agricultural machinery.

Karnal has also established itself in the dairy products sector because of natural benefits and the presence of high technical knowhow in terms of dairy research. Sub-Sector wise GDDP trends in Karnal are presented in the chart.

It is evident that the contribution of service sector to the GDDP is the highest among all sub-sectors.

Sub-Sector wise GDDP break up for Karnal District

²⁴⁵ <http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphbody.htm>



Source: Planning Commission, State Wise District Domestic Product (Data)

18.10.3.1. Agriculture and Allied sectors

Although Agriculture is not the largest contributor to the district economy it employs the maximum number of the working population. According to the 2001 census estimates, 50.06 percent²⁴⁶ of the working population is employed in this sector. In the year 2004-05, Agriculture contributed to 30.43 percent of the district GDP compared to 24.39 percent for the state²⁴⁷.

The farming community is also more progressive as shown by the larger number of large scale farmers and higher average land holding size. The composition of the land holding in the district is shown below benchmarked against the same for the overall state²⁴⁸.

Composition of the land holding in the district benchmarked against the same for the overall state

Region	Below 1 Hectares	1-3 Hectares	3-5 Hectares	5-10 Hectares	Larger than 10 Hectares
Karnal	39456	25550	9740	6702	2985
Haryana	7,78,142	4,89,777	1,79,665	1,23,898	45,829

Source: Haryana Statistical Abstract 2011-12

Paddy, wheat and sugarcane are the main crops at Karnal. Government canals and Tube wells are the major sources of irrigation, 99.9 %²⁴⁹ of the net sown area is irrigated as compared to 86.4 percent for the state of Haryana. The presence of a regional station of the Indian Agricultural Research Institute greatly benefits the local farmers in employing best

²⁴⁶ <http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

²⁴⁷ <http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

²⁴⁸ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

²⁴⁹ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

practices. Farmers in Karnal employ a higher degree of mechanization when compared to their counter parts in other districts of India.

Dairying is second most preferred allied enterprise next to agriculture in the district contributing to additional income for the farmers it employs 410 people in government positions and is the second largest employer behind only the education department.

The Karnal/ Kaithal/ Panipat/ Kurukshetra region together has a procurement of 168.76 lakh litres of milk. The region also has 2 milk chilling centres with a capacity of .40 lakh litres of milk per day. Karnal has 124 milk co operative societies having 7000 members who sell milk and milk products worth of INR 833.48 lakh²⁵⁰.

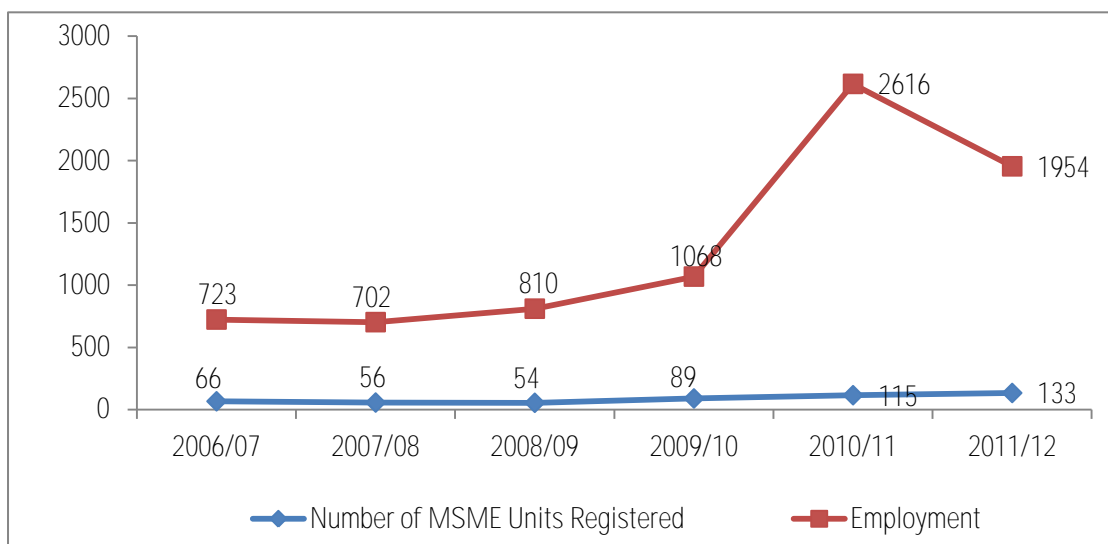
The presence of National Dairy Research Institute helps in training manpower and provides latest technology to the dairy industry in the state and the country. The NDRI, Karnal is credited with many innovations in the field of Dairying like the development of Karan Swiss and Karan Fries two of the highest yielding strains of cattle.

18.10.3.2. Industry

Agriculture is the largest employer in Karnal, but the district is relatively better off in terms of Industry than many other regions of Haryana. Agriculture machinery is manufactured in the district and the district also enjoys a fledgling Dairy industry.

Among Small Scale Industries Agro based, lather based, wood based and engineering based industries enjoy the highest investment and employ the maximum number of people. As per 2011 provisional data, there are 2,511 registered MSE units in the district employing around 23,600 workers on a daily basis²⁵¹.

MSME growth trends in Karnal district



²⁵⁰ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

²⁵¹ <http://dcmsme.gov.in/>

Source: Brief Industrial Profile MSME Karnal District

Between 2006-07 and 2011-12, Medium-Small Scale Industries segment has witnessed good growth generating additional employment during the period. Employment growth trends in MSME segment are presented in the chart²⁵².

Based on discussions with District Industries Center, following potential MSME growth clusters are identified in Karnal district.

Existing Clusters	Clusters Identified for Promotion
<ul style="list-style-type: none">• Agriculture Implements, Karnal Sub - Division• Paint and Chemical, Karnal Sub-Divison• Print & Packaging• Pharmaceuticals, Karnal Sub-Division• Auto Workshop , Services Sector	<ul style="list-style-type: none">• -

Source: Primary Discussion with District Industries Officer, Brief Industrial Profile MSME Karnal

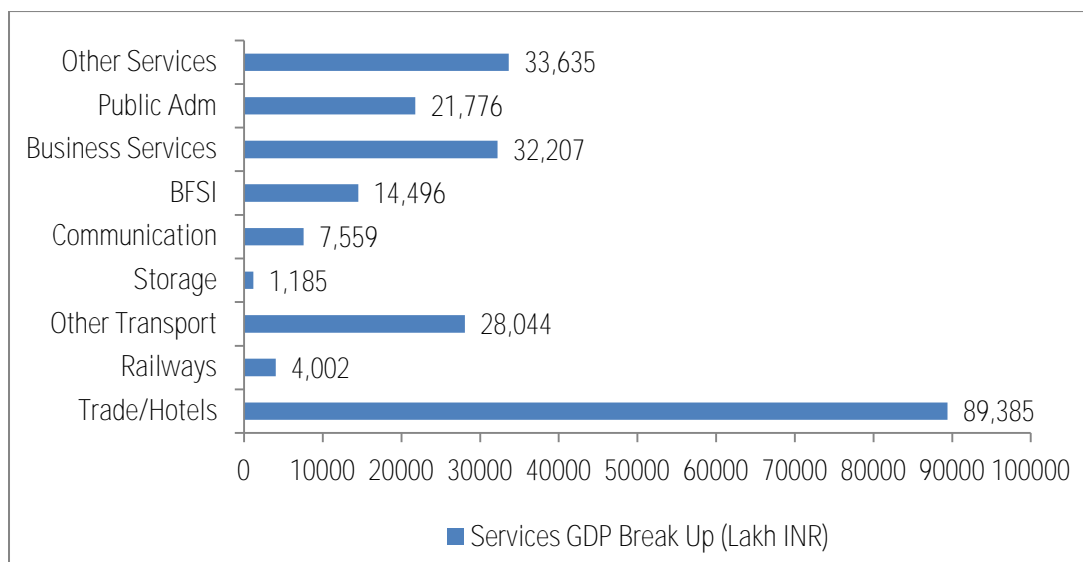
18.10.3.3. Services Sector

Service sector contributed to 37 % percent²⁵³ of GDDP in the year 2005-06. Sector has grown at a cumulative rate of 11.27 percent in the period between 2001-02 and 2005-06. Trade/Hotels are the key services activities in Karnal. Sub-sector wise contribution of services income is presented in the chart.

Sub-sector wise contribution of services income (2005-06)

²⁵² <http://dcmsme.gov.in/>

²⁵³ <http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>



Source: Planning

Commission, State Wise District Domestic Product (Data)

Penetration of healthcare facilities measured in terms of patients served per bed, at 1741 per bed is way off the state average of 1522 per bed. District has 25 PHCs and 6 CHCs along with 147 Sub centers with limited private participation²⁵⁴. Considering limited availability of healthcare facilities within the district, the district is expected to witness significant Government healthcare expenditure over the next decade. Details of healthcare infrastructure in the district are provided in the table.

Details of healthcare infrastructure in the district

Category	Number of Institutions
Allopathic Hospitals	0
Ayurvedic Institutions	26
Unani Institutions	1
Primary Health Centers (PHCs)	25
Community Health Centers (CHCs)	6
Dispensaries	12
Total	70

Source: Haryana Statistical Abstract 2011-12

Karnal has low penetration of banking and financial services measured as a percentage of GDDP at 2.44 percent in comparison to state average of 4.16 percent as per 2004-05 estimates. Karnal being primarily an agriculture and small

²⁵⁴<http://nrhm-mis.nic.in/UI/RHS/RHS%202011/District-wise%20Health%20Centres.pdf>

industry based economy sees presence of mainly public sector banks and small cooperative banks with no presence of new age private and foreign banks²⁵⁵.

18.10.4. Workforce Distribution in the district

18.10.4.1. Current Employment Scenario in Karnal

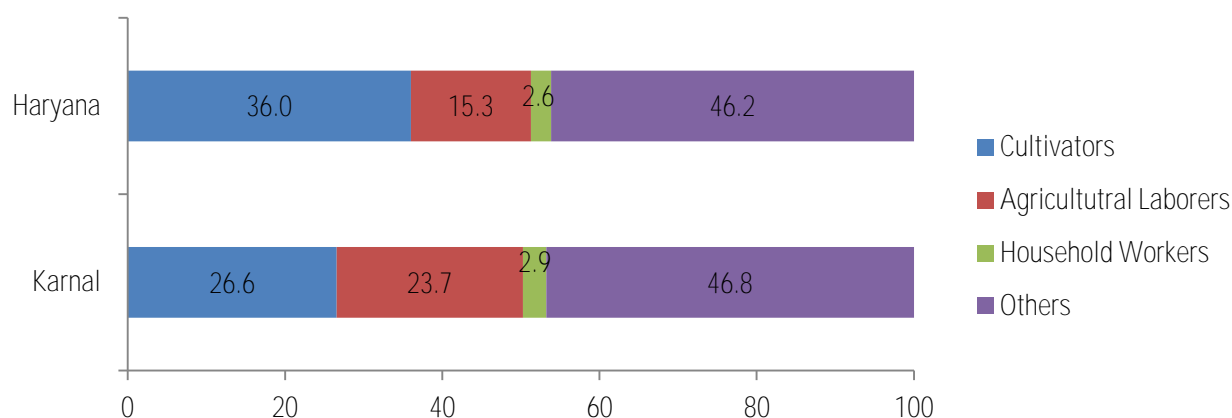
Main Worker participation rate of 27.90 percent in the district is just below the state average number of 28.66 percent, indicating the limited proliferation of industry and overdependence on the primary sector²⁵⁶. Agriculture is the major source of livelihood. Female work participation in the district is low in comparison to male work participation, in line with the state level trend.

Region	Main Worker Participation	Marginal Worker Participation	Overall Non-Workers	Rural Non-Workers	Urban Non-Workers
Karnal	27.90 %	7.85 %	54.39%	55.89%	50.91%
Haryana	28.66 %	10.10 %	50.36%	33.83%	16.52%

Source: Haryana Statistical Abstract 2011-12

Agriculture and allied sources being the major occupation reflects disguised unemployment in agriculture, especially considering the seasonal nature. Over 50 percent of total working population depends on agriculture, with a major share of Agricultural Laborers.

Distribution of Working Population in Karnal



Source: Haryana Statistical Abstract 2011-12

²⁵⁵ <http://dcmsme.gov.in/>

²⁵⁶ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

18.1.4.19. Estimation of Supply of Manpower in the District

District wise incremental supply estimates were arrived at, based on Planning Commission Population Estimates from 2001 population considering birth rate, death rate and life expectancy normalized against population corrections in 2011.

State/ District	Labour Force Supply (2012-17)			Labour Force Supply (2017-22)		
	Gross Addition to Working Age Population	Gross Addition to Labour Force	Net Addition to Labour Force-Supply	Gross Addition to Working Age Population	Gross Addition to Labour Force	Net Addition to Labour Force-Supply
Haryana	2,648,032	1,273,703	727,206	2,421,060	1,164,530	496,173
Karnal	157,235	57,367	32,753	143,758	52,449	22,347

Source: KPMG Analysis

18.1.4.20. Incremental Supply of Labour force in the District

District wise incremental supply estimates were arrived at based on Planning Commission Population Estimates from 2001 population considering birth rate, death rate and life expectancy normalized against population corrections in 2011.

Region	Supply 2012-17			Supply 2017-22		
	Skilled	Semi - Skilled	Minimally Skilled	Skilled	Semi- Skilled	Minimally skilled
Karnal	8,834	4,927	18,992	6,028	3,361	12,958
Haryana	195,716	75,683	455,808	133,537	51,638	310,998

Source: KPMG Analysis

18.7.1.1 Incremental Manpower Requirement in the District

Incremental manpower requirement in the district of district has been estimated based on several parameters such as investments into various sectors in the district for the past 10 years, national level benchmarks on industrial growth across sectors, national inclusion targets for sectors such as banking and healthcare, employment generation potential of various sectors based on labour elasticity and market based insights from discussions with industries in district.

Sector wise skill level requirements during 2012-22

	Karnal					
	2012-17			2017-22		
Sub Sectors	Skilled	Semi-skilled	Unskilled	Skilled	Semi-skilled	Unskilled
Agriculture & Allied Activities	-	-	(3,017)	-	-	(2,965)
Banking and Financial Services	865	2,596	-	886	2,658	-
Beverages	8	31	39	10	41	51
Chemical & Chemical Products	29	115	144	33	132	164
Communication	463	1,389	-	471	1,413	-
Construction	1,004	2,008	17,068	894	1,788	15,196
Construction Based Material	105	419	524	128	511	639
Education and Training	546	3,674	-	104	700	-
Fabricated metal products	106	423	528	103	410	513
Food Processing	157	609	888	191	743	1,083
Footwear	139	557	696	182	729	912
Healthcare	922	3,689	-	949	3,798	-
Paper & Paper Products	16	63	78	20	79	99
Pharma & Medicinal Products	51	206	257	67	268	335

Retail	1,021	1,021	8,166	914	914	7,315
Transportations and Logistics	412	6,544	7,786	510	8,103	9,641
Total	5,879	23,473	33,352	5,503	22,436	33,196

Please note that only the industries with significant manpower demand have been individually highlighted in the table.
Source: KPMG Analysis

Skill requirements in key growth sectors have been analyzed based on industry interactions to understand the detailed manpower needs. Sector level skill interventions are indicated in the section below²⁵⁷.

- Construction

Category of Skills	Skills
Core Skills	Electricians, carpenters, barbers, welders and masons
Allied Skills	Minimally skilled workers
Skills with acute shortage	Machine Operators

- Food Processing

Category of Skills	Skills
Core Skills	Fitter, Electrician, Wireman, Instrumentation, Lab Technician
Allied Skills	Instrumentation, Packaging (Jar, Pouch) Operator, AOC, Lab Attendant, Boiler Operator, QC Chemists, STP, ETP Operators
Skills with acute shortage	Extruder, Boiler Operators, PPO is required in industries having in house packing development

- Agriculture Implements

²⁵⁷ KPMG Analysis

Category of Skills	Skills
Core Skills	Fitter, Welder, Fabricators
Allied Skills	Electrician , Wireman
Skills with acute shortage	Specialized welders in Arc welding

- Transportation and Logistics

Category of Skills	Skills
Core Skills	Heavy vehicle drivers, logistics management
Allied Skills	Administrative, computer data management
Skills with acute shortage	Scheduling and logistics planning

- Banking and Financial

Category of Skills	Skills
Core Skills	Knowledge on core banking/mobile/internet platforms
Allied Skills	Sales and Marketing
Skills with acute shortage	Insurance underwriting, claims management

- Organized Retail

Category of Skills	Skills
Core Skills	Shop floor executives/supervisors, computer operator
Allied Skills	Transportation & logistics staff
Skills with acute shortage	Store management, stock planning

- Healthcare

Category of Skills	Skills
Core Skills	MBBS Doctors, MD/MS specialists, Physician Assistants/Compounders, Radiologists, Dialysis technician, Respiratory technician and OT Assistants & Perfusionist.
Allied Skills	Lab technicians, pharmacists
Skills with acute shortage	Physiotherapists, Biomedical Instrumentation technicians

18.10.5. Human Resource Development in the District

18.10.5.1. Current State of Workforce Development

Overall penetration of higher education in Karnal is lower than the state average.

Comparison of higher education infrastructure in Karnal with Haryana

Category of College	Haryana	Bhiwani
Arts, Science and Commerce	192	3
Engineering/Technology/Architecture	168	9
Medical (Allopathy/Dentistry/Homeopathy)	27	-
Education/Teacher training	472	17
Law	11	-
Others	17	-
Total	887	29
Density(Colleges per Thousand Population)	0.04	0.02

Source: Haryana Statistical Abstract 2011-12

The contribution of the district is average when compared to the state average in the vocational training infrastructure. Karnal has a total of 15 Industrial Training Institutes.

Details of vocational education infrastructure in Karnal

District Wise ITI/ITC Infrastructure (2011)							
Region	Number			Sanctioned Intake			Density(Seats per Thousand Population)
	Govt ITI	Private ITI	Total	Govt ITI	Private ITI	Total	
Haryana	131	94	225	39140	12804	51944	2.05
Karnal	6	9	15	2108	1480	3588	2.38

Source: Department of Industrial training and Vocational Education, Haryana

ITI Karnal offers a wide spectrum of 22 courses including carpentry, COPA, draughtsman civil, mechanic diesel, electrician, electronics mechanic, fitter, machinist, MCOECS, mechanic motor vehicle, mechanic ref. & air conditioning, mechanic tractor, foundryman, painter general, plastic processing operator, stenography English, stenography Hindi, turner, welder, wireman and health sanitary inspector. It also offers a CoE on leather goods and footwear. The other ITIs offer a subset of these courses.

18.9.6.1. Youth Interaction outcomes

The youth in the district exhibited a high preference towards employment over entrepreneurship. Several factors such as poor financial capacity, work environment and socio-cultural factors influenced youth preferences towards employment.

The youth in the district were biased toward government job which they attribute to the fact that it's less rigorous and comes with more reward, security and provides social status.

Amongst the students pursuing vocation education, there was a strong discontentment with regards to kind of training offered during the apprenticeship program. Most students felt that the training offered was not related to their trades or skills acquired during the training program.

Source: Primary Discussion with local youth, ITI student and village sarpanchs

18.10.5.2. Other Skill Mapping and Developmental Concerns

Karnal has flourishing export of rice and district is one of the largest manufacturers of agricultural equipment. There are about 12 medium & large industries in Karnal mostly related to electrical equipment, agricultural equipment and shoe manufacturing.

Industrial clusters have developed in Karnal district. In Karnal sub-division, industry related to agricultural equipment production, pharmaceutical, printing and paints are prominent. In tehsil Nilokheri, Indri and Gharaunda prominent industries are paints and rice milling and in Assandh sub-division rice milling is prominent industry

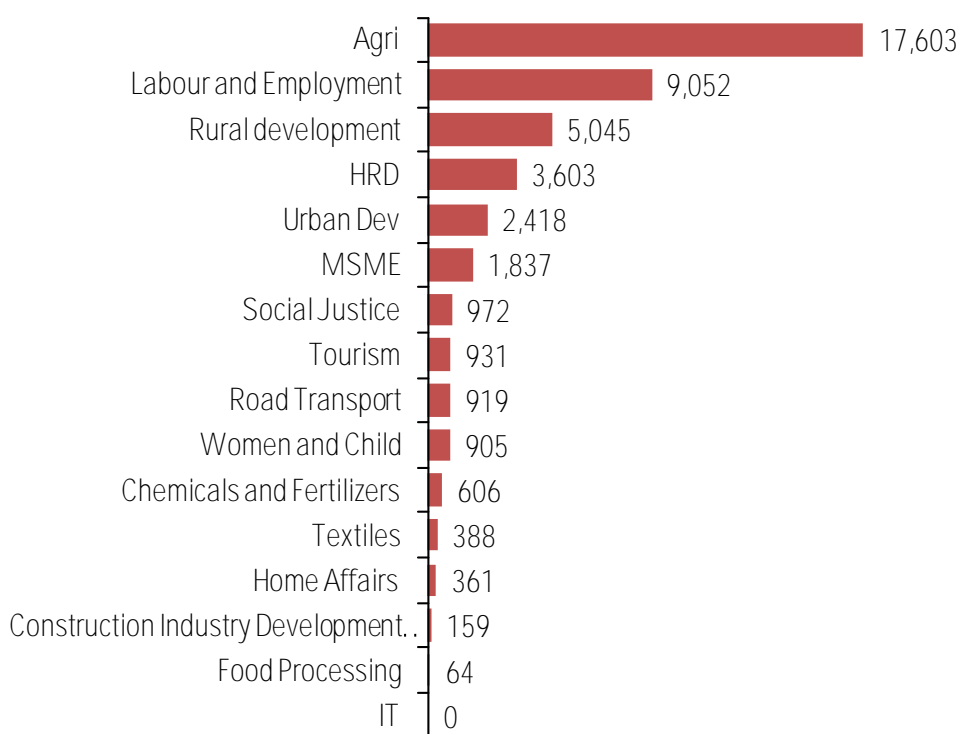
In spite of having reasonable industrial presence within the district, the placement of vocationally trained students remains low. The industry opined that the students generally lack technical and professional skills.

Source: Primary Discussion with industry representatives, ITI Principal and Teachers

18.10.5.3. Incremental Training Capacity in the District through Government Endowments

According to KPMG estimates, based on the potential district budgetary allocation for various central government schemes around 45 thousand people in total can be trained incrementally during the five year period of 2012-17. Ministry of Agriculture has significant training mandates in the district.

Potential Training Capacity in Karnal during 2012-17



Source: KPMG Analysis, Training Plans as per various Ministries/ Departments / Organizations

18.10.6. District Specific Recommendations

Stakeholder	Action Points
NSDC	<p>Creating a favorable and positive skill environment in the district</p> <p>A majority of youth in the district continue to perceive 'skill acquisition' poorly and consider enrolling in</p>

	<p>an ITI/ITC in the region as a last resort.</p> <p>Awareness campaigns about benefit of acquiring vocational education at the village level in collaboration with NGOs and Community based organizations. Identify high-performing and motivated students and provide scholarships for higher education.</p>
Skill Development Training Providers	<p>Introduction of industry relevant skills with focus on placements</p> <p>The prominent industry in district of Karnal is agricultural equipment production, pharmaceutical, printing, paints and rice milling. The key companies in these area opined lack of certain core industry skills in the district. The key skill gaps identified in the district by these industries are pattern making, skilled drill man, skilled turner, MIG welder and TIG welder.</p> <p>Relevant courses/modules aimed at these industries should be developed.</p>
Industry	<p>Support teacher training initiatives</p> <p>Agro Based / Food Processing industries comprises of significant share of number of industries in the district. The large scale industry in this sector should support training programs for the relevant skills.</p> <p>Industry should conduct teacher training programs from faculty from local institutes with an aim to improve quality of training delivery and relevance of pedagogy to industry</p> <p>Strengthen the apprenticeship programs</p> <p>The students exhibited low motivation to participate in apprenticeship program as they felt that the trainings were non effective.</p> <p>A structured and effective training program for students should be developed by the industry. Relevant training should be provided to the students based on the student education. Also, regular feedback should be collected from the students and employees during the course of training</p>
District Administration	<p>Facilitate women participation in skill development</p> <p>The female literacy rate in the district is significantly lower than the male literacy in the district and hence there is need for intervention in this regard.</p> <p>Facilitate formation of SHG's which will involve more women with an aim to empower</p> <p>Focus on training in agricultural products and processing</p> <p>There is a high dependence on primary sector in the district. However, most of the farmers are still engaged in traditional crops and have low awareness about new crops (Fruits and vegetables) or</p>

opportunities farm mechanization

Facilitate trainings to apprise farmers about new agro and food processing opportunities, benefits of farm mechanization etc

18.11 Skill Gap Assessment of Kurukshetra District

18.11.1. Administrative Profile

Kurukshetra is known for its religious and historical importance. It is bordered by the districts of Ambala and Yamunanagar in the North and North West respectively. Further, it is also bordered by Karnal and Kaithal to the South. The district covers an area of 1530 sq. km., which accounts for 3.46 percent of the total share of land area²⁵⁸.

Administratively, the district consists of 2 sub-divisions (Thanesar and Pehowa) 2 tehsils (Thanesar and Pehowa) and 2 sub-tehsils (Shahbad and Ladwa)²⁵⁹.

18.11.2. Social Profile

18.11.2.1. Demographics

According to 2011 census data, the district has a population of 9.65 lakhs, contributing to 3.81 percent of the total state population. The district population has grown at a decadal growth rate of 16.86 percent in the period of 2001-11. The district has a high share of rural population, with 71 percent²⁶⁰ of the population being rural.

The population density of the district stands at 630 persons per sq.km which is higher than the state average of 573 persons per sq.km²⁶¹. The child gender ratio of Kurukshetra is 818 per 1000 males which is a remarkable increase from 771 in 2001. The adult gender ratio has improved increasing from 866 females per 1000 males in 2001, to 888 females per 1000 males in 2011²⁶².

²⁵⁸Haryana State Statistical Abstract 2011-12

²⁵⁹<http://haryana.gov.in/haryana%20state/kurukshetra.asp>

²⁶⁰http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

²⁶¹http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

²⁶²http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

The scheduled caste population in the district accounts for 20.52 percent²⁶³ of total population, which is at par with the state average of 19.35 percent. There are no Scheduled Tribes in Haryana.

18.11.2.2. Literacy

The district literacy rate is 76.31 percent, up from 69.88 percent in 2001. It is at level with the state average of 75.55 percent²⁶⁴. The gender disparity in education attainment levels is significant with a female literacy rate of 68.84 percent when compared to the male literacy rate of 83.02 percent.

The school infrastructure is at par with the state average for the primary level and secondary level but higher in the middle level of education, as shown by the graph below.

Number of schools per thousand school going children

Region	Primary Level	Middle Level	Secondary Level
Kurukshetra	8	6	3
Haryana	7	8	3

Number of recognized schools and student enrolments

Region	Primary Level	Middle Level	Secondary Level
Number of schools	623	218	216
Number of scholars	54,652	58,399	52,079

Source: Haryana Statistical Abstract 2011-12

18.11.3. District Economy

The contribution of Kurukshetra to the overall state economy is at level with the capacities and resources of the district. However, the per capita income of INR 25,014 is much lower than the state average of INR 32,712 in 2004-05 (At current prices)²⁶⁵.

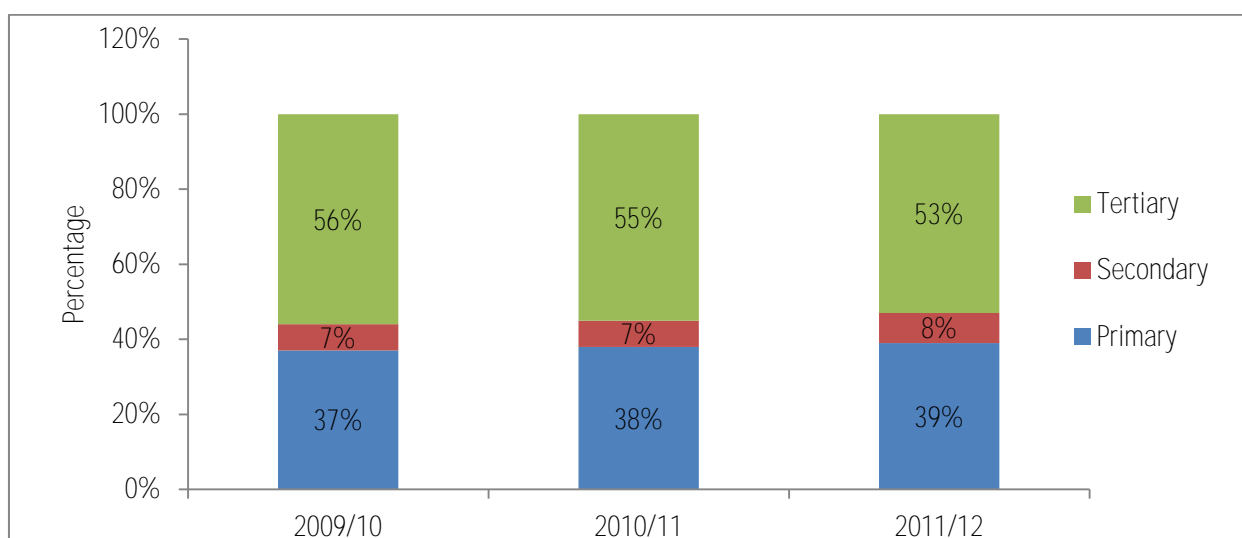
²⁶³http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

²⁶⁴http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

²⁶⁵<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

Kurukshetra's economy is dependent on the tertiary sector which makes up 53 percent of the GDDP²⁶⁶ in 2011-12. Tourism, hospitality services and transport are very important for the state economy, considering the number of pilgrims and tourists the district receives annually. Agriculture is another major source of livelihood for the people in the state. The contribution of the primary sector to the GDDP has been slowly increasing in the past three years.

Sub-Sector wise GDDP trends



Source: Planning Commission, State Wise District Domestic Product (Data)

18.11.3.1. Agriculture and Allied sectors

Kurukshetra, like many other districts in the country, is dependent on a large primary sector. It is the primary source of employment to 46.47 percent of the working population, as per the 2001 census.

In the year 2004-05, agriculture contributed a 31.22 percent of the district GDP compared to 24.39 percent²⁶⁷ for the state. There are very few large land holdings indicating a lack of mechanization in farming practices. A majority of landholdings measure below 1 hectare.

Composition of the land holding in the district benchmarked against the same for the overall state

Region	Below 1 Hectares	1-3 Hectares	3-5 Hectares	5-10 Hectares	Larger than 10 Hectares
Kurukshetra	24920	16257	5889	4575	2310
Haryana	7,78,142	4,89,777	1,79,665	1,23,898	45,829

Source: Haryana Statistical Abstract 2011-12

²⁶⁶ <http://dcmsme.gov.in/dips/yamunana.pdf>

²⁶⁷ <http://www.crida.in/>

Sugarcane, rice and wheat are the major crops grown in the district. Sugarcane covers 12000 hectares of land area. The percentage of net area irrigated to net area sown is 100 percent, as against the state average of 84.1 percent²⁶⁸. The irrigation intensity of the district is also very high at 179.5 percent as against the state average of 184.6 percent.

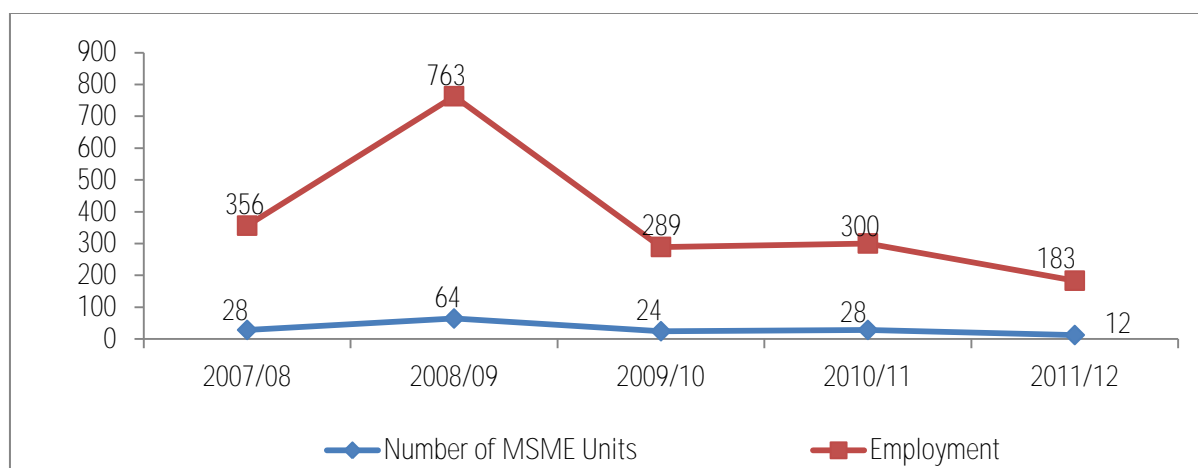
Dairy farming and cattle rearing are other prominent agri-allied activities. Most agricultural workers are engaged in dairy farming, poultry farming, pig farming etc., as a side business to supplement their income. There is wide network of veterinary facilities which includes the civil veterinary hospital, dispensaries and poultry-cum-piggery centre. Milk cooperative societies provide another source of income for poor households.

18.11.3.2. Industry

Kurukshetra, being heavily reliant on agriculture has a couple of important agro-based industries. Rice milling, milk processing, wooden industries, hosiery and readymade garments, chemical, repairing and servicing are the main industrial groups existing in the district.

As per 2011 provisional data, there are 2236 registered Industrial Units in the district employing 1406 workers in the medium and large industries segment²⁶⁹. Between 2007 and 2009, Medium-Small Scale Industries segment witnessed considerable growth, almost doubling in units registered, but then declined after²⁷⁰.

Growth trends of MSME sector in the district



Source: Brief Industrial profile of Kurukshetra District, MSME

Based on discussions with District Industries Center, following potential MSME growth clusters are identified in Jind district.

Existing Clusters	Clusters Identified for Promotion
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²⁶⁸ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

²⁶⁹ <http://dcmsme.gov.in/dips/kurushetra.pdf>

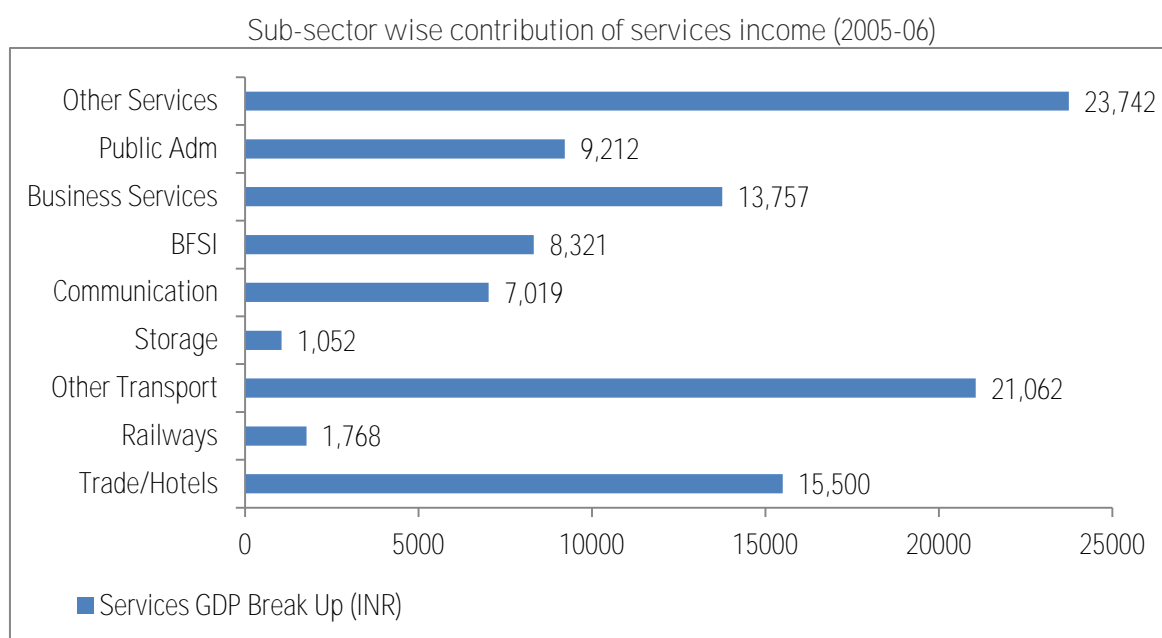
²⁷⁰ <http://dcmsme.gov.in/dips/kurushetra.pdf>

None	Food Processing Industry
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Source: Primary discussion District Industries Officer, Brief Industrial profile of Kurukshetra District, MSME

18.11.3.3. Services Sector

The share of service sector is very high at 41.84 percent²⁷¹ of GDDP in the year 2005-06. Trade/Hotels, other transport and other services are key service activities in Kurukshetra as shown in the figure below.



Source: Planning Commission, State Wise District Domestic Product Report

The penetration of healthcare facilities measured in terms of beds per 1,00,000 population is 31, which is lower than the state average of 39. There is a need to increase penetration and access of healthcare services in the district.

The district has 21 PHCs and 5 CHCs along with 110 Sub centers²⁷². With an ever increasing population and sustained industrial growth the district could witness significant healthcare expenditure over the next decade.

Details of healthcare infrastructure in the district

Category	Number of Institutions
Allopathic Hospitals	1
Ayurvedic Institutions	15

²⁷¹<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

²⁷²<http://nrhm-mis.nic.in/UI/RHS/RHS%202011/District-wise%20Health%20Centres.pdf>

Unani/Homeopathic Institutions	-
Primary Health Centers (PHCs)	21
Community Health Centers (CHCs)	4
Dispensaries	4
Total	45

Source: Haryana Statistical Abstract 2011-12

Kurukshetra has a slightly higher than average penetration of banking and financial services measured as a percentage of GDDP at 5.68 percent in comparison to state average of 4.16 percent as per 2004-05 estimates.

The district has 68 cooperatives per lakh per population in different sectors of industry like sugarcane, milk supply etc. The credit deposit ratio for the district is 69.49 percent which is lower than the state average of 102 percent.

18.11.4. Workforce Distribution in the district

18.11.4.1. Current Employment Scenario in Kurukshetra

The main worker participation rate of 30.36 percent in the district is higher than the state average number of 28.66 percent. Worker participation rates are higher in rural rather than urban areas, reflecting the dependency of the economy on agro based activities.

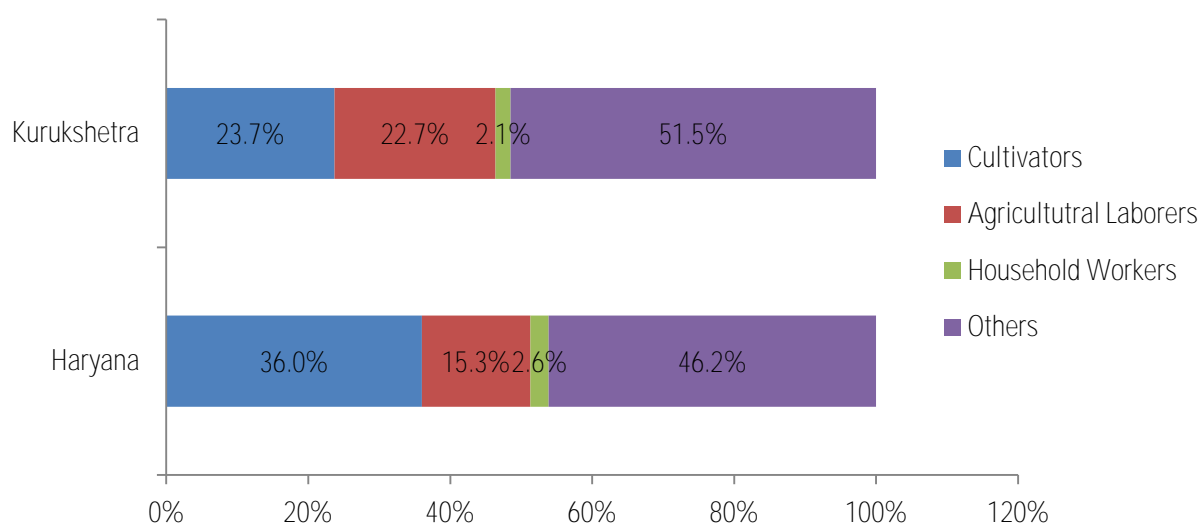
Agriculture is the major source of employment for over 46.4% of the total working population compared to 51.29 percent average for the state of Haryana²⁷³. Female work participation in the district is low in comparison to male work participation with only 26.58 percent of the working population being females, almost half of that of the state.

Region	Main Worker Participation	Marginal Worker Participation	Overall Non-Workers	Rural Non-Workers	Urban Non-Workers
Kurukshetra	30.36 %	5.98%	53.58%	37.94%	15.63%
Haryana	28.66 %	10.10 %	50.36 %	33.83 %	16.52 %

²⁷³ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

High rate of non-worker participation indicate that a portion of the population works seasonally, in agro-based activities which are often informal and hard to document. Rural non workers account for a lot more than urban non workers, indicating a non-permanent source of employment.

Distribution of Working Population in the district



Cultivators and agricultural laborers make up a huge proportion of the workforce, similar to the general trend for the state. Industries, also agro-based, provide a major source of employment for the district.

18.1.4.21. Estimation of Supply of Manpower in the District

District wise incremental supply estimates were arrived at based on Planning Commission Population Estimates from 2001 population considering birth rate, death rate and life expectancy normalized against population corrections in 2011.

State/ District	Labour Force Supply (2012-17)			Labour Force Supply (2017-22)		
	Gross Addition to Working Age Population	Gross Addition to Labour Force	Net Addition to Labour Force-Supply	Gross Addition to Working Age Population	Gross Addition to Labour Force	Net Addition to Labour Force-Supply
Haryana	2,648,032	1,273,703	727,206	2,421,060	1,164,530	496,173
Kurukshetra	100,761	44,719	25,532	92,124	40,886	17,420

Source: KPMG Analysis

18.1.4.22. Incremental Supply of Labour force in the District

District wise incremental supply estimates were arrived at based on Planning Commission Population Estimates from 2001 population considering birth rate, death rate and life expectancy normalized against population corrections in 2011.

Region	Supply 2012-17			Supply 2017-22		
	Skilled	Semi - Skilled	Minimally Skilled	Skilled	Semi-Skilled	Minimally skilled
Kurukshetra	8,608	2,005	14,919	5,873	1,368	10,179
Haryana	195,716	75,683	455,808	133,537	51,638	310,998

Source: KPMG Analysis

18.7.1.1 Incremental Manpower Requirement in the District

Incremental manpower requirement in the district of district has been estimated based on several parameters such as investments into various sectors in the district for the past 10 years, national level benchmarks on industrial growth across sectors, national inclusion targets for sectors such as banking and healthcare, employment generation potential of various sectors based on labour elasticity and market based insights from discussions with industries in district.

Sector wise skill level requirements during 2012-22

Sub Sectors	Kurukshetra					
	2012-17			2017-22		
	Skilled	Semi-skilled	Unskilled	Skilled	Semi-skilled	Unskilled
Agriculture & Allied Activities	-	-	(1,629)	-	-	(1,602)
Banking and Financial Services	614	1,842	-	629	1,886	-
Communication	356	1,068	-	362	1,087	-
Construction	610	1,220	10,371	543	1,086	9,233
Construction Based Material	61	244	305	74	297	372
Education and Training	369	2,481	-	60	404	-
Food Processing	330	1,285	1,872	428	1,666	2,427

Healthcare	855	3,421	-	879	3,516	-
Hospitality	50	76	378	45	68	340
Retail	1,571	1,571	12,569	1,407	1,407	11,259
Textiles	14	57	71	21	82	103
Transportations and Logistics	359	5,693	6,774	444	7,050	8,387
Total	5,233	19,134	30,930	4,943	18,750	30,770

Please note that only the industries with significant manpower demand have been individually highlighted in the table.
Source: KPMG Analysis

Skill requirements in key growth sectors have been analyzed based on industry interactions to understand the detailed manpower needs. Sector level skill interventions are indicated in the section below²⁷⁴.

- Food Processing

Category of Skills	Skills
Core Skills	Fitter, Electrician, Wireman, Instrumentation, Lab Technician
Allied Skills	Instrumentation, Packaging (Jar, Pouch) Operator, AOCP, Lab Attendant, Boiler Operator, QC Chemists, STP, ETP Operators
Skills with acute shortage	Extruder, Boiler Operators, PPO is required in industries having in house packing development

- Construction

Category of Skills	Skills
Core Skills	Electricians, carpenters, barbenders, welders and masons
Allied Skills	Minimally skilled workers
Skills with acute shortage	Machine Operators

²⁷⁴ KPMG Analysis

- Transportation and Logistics

Category of Skills	Skills
Core Skills	Heavy vehicle drivers, logistics management
Allied Skills	Administrative, computer data management
Skills with acute shortage	Scheduling and logistics planning

- Banking and Financial

Category of Skills	Skills
Core Skills	Knowledge on core banking/mobile/internet platforms
Allied Skills	Sales and Marketing
Skills with acute shortage	Insurance underwriting, claims management

- Organized Retail

Category of Skills	Skills
Core Skills	Shop floor executives/supervisors, computer operator
Allied Skills	Transportation & logistics staff
Skills with acute shortage	Store management, stock planning

- Healthcare

Category of Skills	Skills
Core Skills	MBBS Doctors, MD/MS specialists, Physician Assistants/Compounders, Radiologists, Dialysis technician, Respiratory technician and OT Assistants & Perfusionist.
Allied Skills	Lab technicians, pharmacists
Skills with acute shortage	Physiotherapists, Biomedical Instrumentation technicians

18.11.5. Human Resource Development in the District

18.11.5.1. Current State of Workforce Development

Kurukshetra is home to a number of institutes of higher education, most of which are focused around education and engineering. Kurukshetra has as many as thirty eight colleges, four of which are managed by the government. Six colleges are aided by the government and twenty eight are unaided and privately managed.

Comparison of higher education infrastructure in Kurukshetra with Haryana

Category of College	Haryana	Kurukshetra
Arts, Science and Commerce	19	8
Engineering/Technology/Architecture	168	9
Medical (Allopathy/Dentistry/Homeopathy)	27	1
Education/Teacher training	472	20
Law	11	-
Others	17	-
Total	887	38

Source: Haryana Comprehensive Statistics 2011-12

The district has a number of institutes with sufficient vocational education capacity in industry specific skills such as welding, wiring and cutting. Electricians and metalwork are two major fields of instruction. The penetration of vocational institutes is lower than the state average, with 1.51 seats per thousand population.

Details of vocational education infrastructure in Kurukshetra

District Wise ITI/ITC Infrastructure (2011)							
Region	Number			Sanctioned Intake			Density (Seats per Thousand Population)
	Govt ITI	Private ITI	Total	Govt ITI	Private ITI	Total	
Haryana	131	94	225	39140	12804	51944	2.05

Kurukshetra	3	5	8	756	704	1460	1.51
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Source: Department of Industrial training and Vocational Education, Haryana

The ITI Kurukshetra offers a wide spectrum of 17 courses including Carpentry (PPP), Carpentry (for SC only), COPA, Draughtsmen Civil, Dress Making, Electrician (for SC only), Electrician (PPP), Electronics Mechanic, Fitter (PPP), Fitter (for SC only), Instrument Mechanic, Machinist, Mechanic Tractor, Plumber, Stenography English, Stenography Hindi, Turner (for SC only), Welder (PPP), Wireman PPP and Mechanic R& AC. Other government ITIs in the district offers a subset of these courses.

18.11.5.2. Youth Interaction Outcomes

The youth in the district exhibited higher preference to self employment and entrepreneurship over employment. Several factors such as family environment and socio-cultural factors seemed to influence youth preferences towards self employment.

In case of any employment opportunities, there was a high preference towards branded Automobiles and electronics firms like Maruti, Honda and Godrej. However, there was low awareness about career opportunities amongst the youth

In terms of choice of education, there is a poor perception of vocational training. The general perception is that youth may be better off, in terms of status and monetary wise working in agriculture than as an industrial worker. There is also a low openness to migration amongst local youth.

Source: Primary Discussion ITI students, local youth and village sarpanch

18.11.5.3. Other Skill Mapping and Developmental Concerns

There industrialization in Kurukshetra district is largely limited to food processing industries at Small/ Micro and Medium and Large scale level. Compared to other districts of Haryana, the industrial growth in Kurukshetra has been slower on account of slow land acquisition, low availability of electricity and high labour cost.'

Growth of MSMEs is not balanced in all the blocks of the district Most of the industries are situated at Kurukshetra proper and at Shahbad. Babain block is having only Rice Shellers, repairing and servicing MSMEs. It is most industrially backward block of the district Except Babain town all the areas of the block are of rural background. Only one Industrial area is situated at Kurukshetra. The existing MSMEs in the Industrial Area cannot execute their expansions plan due to shortage of Industrial Accommodation. All the block of Kurukshetra district is put under Category 'C' blocks of industrially backwards.

In order to address the lack of employment opportunities within the district, the state has developed an Udyog Kunj at Ismailabd. Under this scheme, the educated unemployed are encouraged for setting up of small / tiny units in rural area around their villages itself. In Udyog Kunj, all possible facilities / infrastructure are provided to the entrepreneurs for setting their ventures. In this Udyog Kunj set up by Haryana State Industrial Development Corporation, there are 09 plots

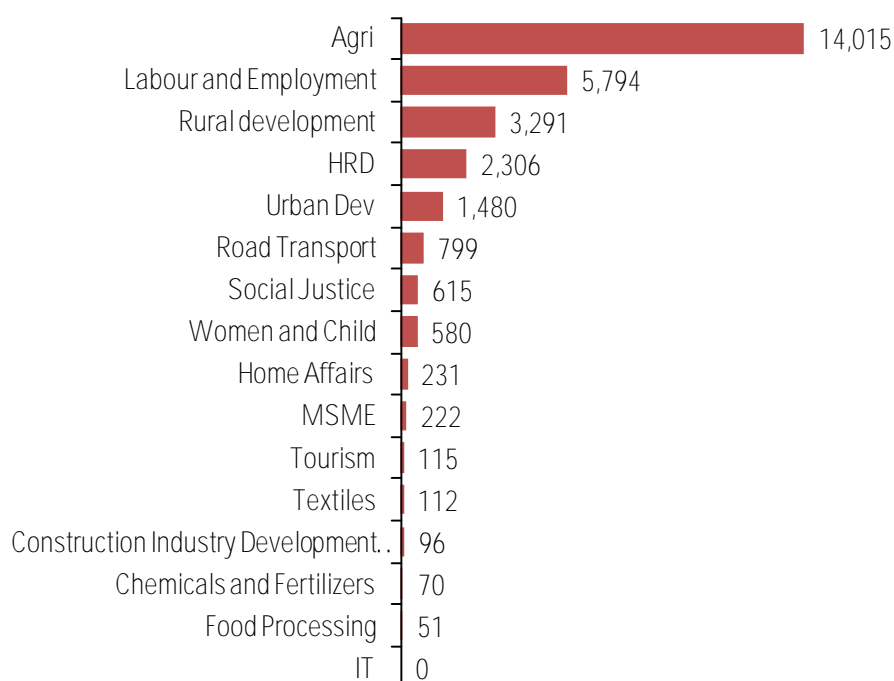
of 250 Sq mtrs size and 25 plots of 91 Sq mtrs and 10 sheds have been constructed. Already 22 plots and 08 sheds have been allotted to the local entrepreneurs to set up their units.

Source: Primary Discussion with DIC, industry representatives and ITI principal. Students

18.11.5.4. Incremental Training Capacity in the District through Government Endowments

According to KPMG estimates, based on the potential district budgetary allocation for various central government schemes, around 30 thousand people in total can be trained incrementally during the five year period of 2012-17. Ministry of Agriculture has significant training mandates in the district.

Potential Training Capacity in the district through Government Endowments (2012-17)



Source: KPMG Analysis, Training Plans as per various Ministries/ Departments / Organizations

18.11.6. District Specific Recommendations

Stakeholder	Action Points
NSDC	Creating a favorable and positive skill environment in the district
	A majority of youth in the district continue to perceive 'skill acquisition' poorly and consider enrolling in

	<p>an ITI/ITC in the region as a last resort.</p> <p>Awareness campaigns about benefit of acquiring vocational education at the village level in collaboration with NGOs and Community based organizations. Identify high-performing and motivated students and provide scholarships for higher education.</p>
<p>Skill Development Training Providers</p>	<p>Introduction of self employment focused courses in low industrialized areas</p> <p>Growth of MSMEs is not balanced in all the blocks of the district Most of the industries are situated at Kurukshetra proper and at Shahbad. Babain block is having only Rice Shellers, repairing and servicing MSMEs. It is most industrially backward block of the district Except Babain town all the areas of the block are of rural background.</p> <p>For the areas having low industrial presence, the focus of skill training institutes should be on self employment focused courses like repair, mechanic, painter etc</p> <p>Focus on soft skill training to students Attitude and professional conducts remains a major challenge amongst local youth. Targeted training modules for soft skills to be developed and imparted to students. Facilitate camps to address behavioural and professional issue amongst students</p>
<p>Industry</p>	<p>Increase desirability of jobs in key manufacturing sector in the district</p> <p>Food processing sector constitutes of the significant majority of industry in the district. However, perceptions of poor work conditions have resulted in low preference for the industry amongst youth.</p> <p>Build awareness about industry, career prospects, benefits etc amongst local youth through motivational camps and job fairs. Industry heads should work on improving work conditions and ensure compliance to safety, health and welfare norms. Local industry should encourage relevant trainings to apprenticeship program with an aim to promote industry attractiveness amongst youth"</p>
<p>District Administration</p>	<p>Focus on training in agricultural products and processing</p> <p>There is a high dependence on primary sector in the district. However, most of the farmers are still engaged in traditional crops and have low awareness about new crops (Fruits and vegetables) or opportunities farm mechanization</p> <p>Facilitate trainings to apprise farmers about new agro and food processing opportunities, benefits of farm mechanization etc</p> <p>Facilitate women participation in skill development</p> <p>Facilitate formation of SHG's which will involve more women with an aim to empower the women</p>

18.12 Skill Gap Assessment of Mahendragarh District

18.12.1. Administrative Profile

Mahendragarh is bordered by Bhiwani to the north, Rewari to the east and Rajasthan to the west and south. The area of district is 1899 sq km, which accounts for 4.3 percent of the total share of state area²⁷⁵.

Administratively, the district has been divided into two sub divisions (Mahendragarh and Narnaul); three tehsils (Mahendragarh, Narnaul and Nangal Chaudhary) and eight blocks (Ateli Nangal, Kanina, Mahendragarh, Nangal Chaudhary, Narnaul, Sihma, Nizampur and Satnali).

18.12.2. Social Profile

18.12.2.1. Demographics

As per Census 2011, Mahendragarh has a population of 9.22 lakhs, contributing to 3.64 percent of the total state population. The district population has grown at a decadal growth rate of 1.48 percent in the period of 2001-11.

An overwhelming majority of the population in the district is rural in nature, with 85.59 percent²⁷⁶ of population residing in rural areas. The population density of the district standing at 486 persons per sq.km, is lower than the state average of 573 persons per sq.km²⁷⁷.

The child gender ratio of Mahendragarh is a major cause for concern for the state government. It has further deteriorated over the past ten years, decreasing from 818 females per 1000 males in 2001 to 778 females per 1000 males in 2011. The adult gender ratio also fares poorly when compared to the national average. It has come down from 918 females per 1000 males in 2001 to 894 females per 1000 males in 2011²⁷⁸. However, this is above the state average of 877 females per 1000 males.

The scheduled caste population in the district is lower than other districts of the state, occupying a share of 16.31²⁷⁹ percent of total population, which is lower compared to the state average of 19.35 percent. There are no Scheduled Tribes in Mahendragarh.

18.12.2.2. Literacy

The district literacy rate of 72.09 percent (up from 64.84 % in 2001), is much lower than the state average of 75.55 percent²⁸⁰.

²⁷⁵Haryana State Statistical Abstract 2011-12

²⁷⁶http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

²⁷⁷http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

²⁷⁸http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

²⁷⁹http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

²⁸⁰http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

The gender disparity in education attainment levels is also prominent with a low female literacy rate of 64.64 percent when compared to the male literacy rate of 80.89 percent.

The school infrastructure in Mahendragarh is at par with the state average, shown by the below benchmarking of Mahendragarh's School infrastructure with that of the state, in terms of schools per thousand school going children. In fact the district performs better than average at the middle school level.

Number of Schools per Thousand School Going Children in Mahendragarh against that of Haryana

Region	Primary Level	Middle Level	Secondary Level
Mahendragarh	7	11	3
Haryana	7	8	3

Number of recognized schools and student enrolments in Mahendragarh

Region	Primary Level	Middle Level	Secondary Level
Number of schools	647	159	245
Number of scholars	13159	21511	123422

Source: Haryana Statistical Abstract 2011-12

18.12.3. District Economy

The contribution of Mahendragarh to overall state economy is smaller than the average share on population pro-rata basis - as evident from the lower Per Capita Income of INR 22,987²⁸¹ in comparison to state average of INR 32,712 in 2004-05 (At current prices)

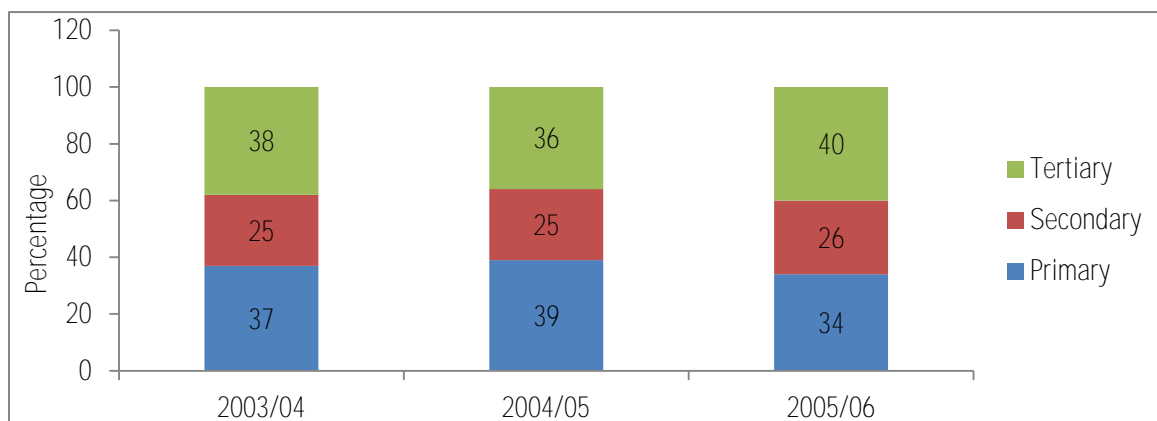
Mahendragarh's economy is primarily agrarian in nature, the large rural population is mostly employed in agriculture and allied activities.

Mahendragarh is one of only two districts in Haryana that come under the Backward Regions Grant Fund Programme.²⁸²

Sub-Sector wise GDDP break up for Mahendragarh District

²⁸¹ <http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

²⁸² http://www.nird.org.in/brgf/doc/brgf_BackgroundNote.pdf



Source: Planning Commission, State Wise District Domestic Product (Data)

18.12.3.1. Agriculture and Allied sectors

Mahendragarh like many other districts in the country as well as the state is primarily an agrarian economy. Agriculture employs a majority of the working population. According to the census of 2001, 65.80 percent of the working population is employed in agriculture, this has increased from 48.53 percent in 1991²⁸³. In the year 2004-05, Agriculture contributed a major portion (38.19 percent) of the district GDP, compared to 24.39 percent for the state²⁸⁴. The composition of the land holding in the district is shown below benchmarked against the same for the overall state. The average land holding size of 1.82 hectares for Mahendragarh is smaller than the state average of 2.25 hectares²⁸⁵.

Composition of the land holding in the district benchmarked against the same for the overall state

Region	Below 1 Hectares	1-3 Hectares	3-5 Hectares	5-10 Hectares	Larger than 10 Hectares
Mahendragarh	43,293	26,270	7,778	5,170	1,727
Haryana	7,78,142	4,89,777	1,79,665	1,23,898	45,829

Source: Haryana Statistical Abstract 2011-12

Agriculture is the backbone of the district, as there are no industries to provide employment to rural as well as urban people. The major crops of the district are Bajra, Rapeseed, Mustard and Wheat.

The introduction of improved varieties of wheat in 1960s and 70s changed the agricultural landscape of the district considerably with diversified cropping system. The use of fertilizers and improved irrigation facilities improved the

²⁸³ <http://www.crida.in/>

²⁸⁴ <http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphbody.htm>

²⁸⁵ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

cropping intensity to almost 181 percent²⁸⁶. The increase in the use of fertilizer, irrigation and now pesticides have led to increased cost of cultivation, which is a major concern for farmers in the region. Irrigation in Mahendragarh is dismal with most of the cropped area being rain fed, it is below the state average with 33 percent of the net sown area irrigated against the average for Haryana being 82.1 percent.²⁸⁷

Dairying is a major activity in Mahendragarh. The area of Rohtak/Sonipat/ Mahendragarh/ Rewari/ Bhiwani/ Jhajjar procures 422.42 lakh litres of milk which is the second highest in the state. The region also has a milk plant with a capacity of 2.5 lakh litres per day and 4 milk chilling centre with a capacity of .7 lakh litres per day.²⁸⁸

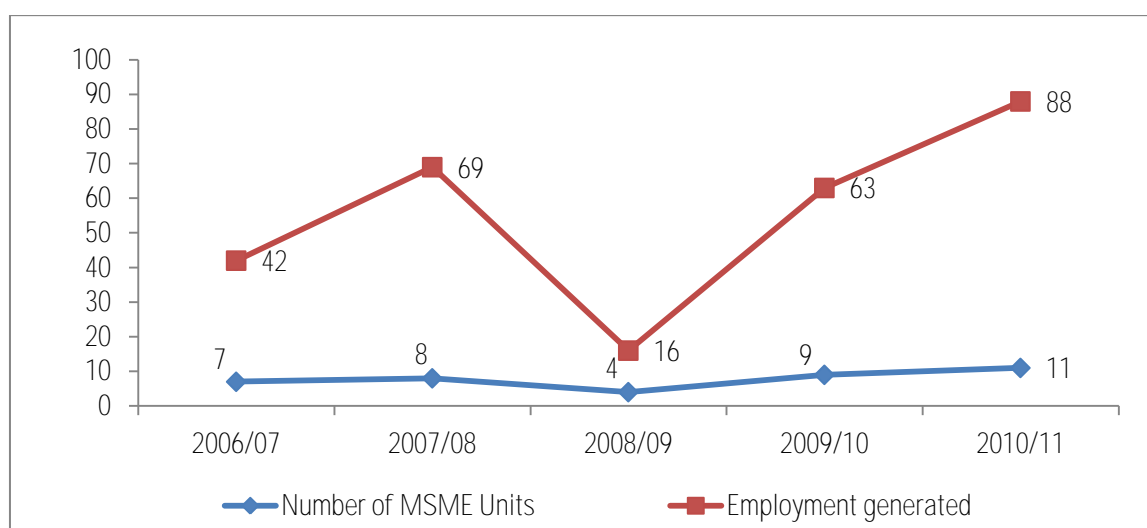
18.12.3.2. Industry

Mahendragarh is not very well developed in terms of industry as a result of which most of the rural and urban population is employed in agriculture.

Among Small Scale Industries agro based, wool based, readymade clothes, wood based, repairing service, leather based, metal based and mineral based industries enjoy the highest investment and employ the maximum number of people.

As per 2011 provisional data, there are 1022 registered Industrial Units in the district employing around three thousand workers in the small scale industries segment²⁸⁹. Between 2006-07 and 2011-12, Medium-Small Scale Industries segment has witnessed some growth generating additional employment during the period. Growth trends in MSME segment are presented in the chart²⁹⁰.

MSME growth trends in Mahendragarh district



Source: Brief Industrial Profile of Mahendragarh District, MSME

²⁸⁶ <http://www.crida.in/>

²⁸⁷ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

²⁸⁸ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

²⁸⁹ <http://dcmsme.gov.in/>

²⁹⁰ <http://dcmsme.gov.in/>

Based on discussions with District Industries Center, following potential MSME growth clusters are identified in Mahendragarh district.

Existing Clusters	Clusters Identified for Promotion
<ul style="list-style-type: none"> Embroidery frame 	-

Source: Primary Discussion DIC, Brief Industrial Profile of Mahendragarh District, MSME

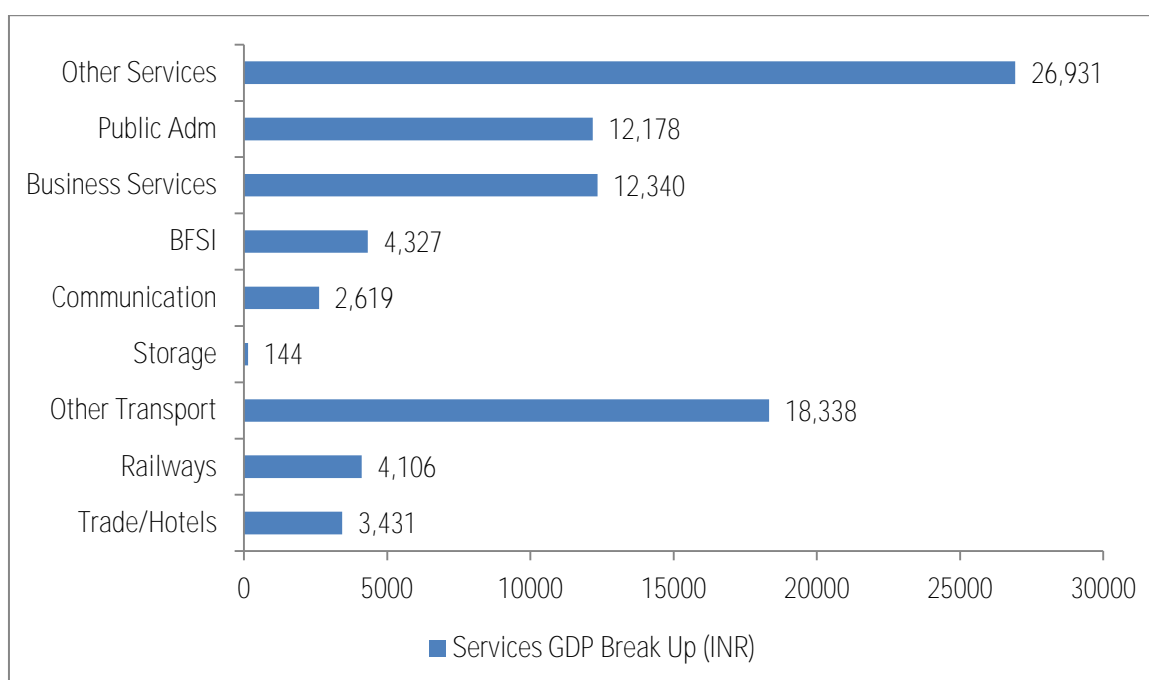
18.12.3.3. Services Sector

Despite the district being in proximity to National Capital Region, it has failed to leverage the advantage and the services sector growth remains limited. Further, it lags behind in nearly all sub sectors of the service sector.

Service sector contributed 39.47 percent²⁹¹ of GDDP in the year 2005-06. Sector has grown at a cumulative rate of 11.22 percent in the period between 2001-02 and 2005-06.

Trade/Hotels, other services, Public administration, transport and business services are key services activities in Mahendragarh they enjoy a large share in the GDDP.

Sub-sector wise contribution of services income (2005-06)



Source: Planning Commission, State Wise District Domestic Product Report

²⁹¹<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

Penetration of healthcare facilities measured in terms of patients treated per bed, at 1636 per bed higher than the state average of 1522 per bed. District has 24 PHCs and 7 CHCs along with 109 Sub centers with limited private participation²⁹². With an ever increasing population and fast paced industrial growth the district is expected to witness significant healthcare expenditure over the next decade. Details of healthcare infrastructure in the district are provided in the table.

Details of healthcare infrastructure in the district

Category	Number of Institutions
Allopathic Hospitals	1
Ayurvedic Institutions	25
Unani/Homeopathic Institutions	-
Primary Health Centers (PHCs)	24
Community Health Centers (CHCs)	7
Dispensaries	3
Total	60

Source: Haryana Statistical Abstract 2011-12

Mahendragarh has a poor penetration of banking and financial services measured as a percentage of GDDP at 2.17 percent in comparison to state average of 4.16 percent as per 2004-05 estimates. There are 68 commercial banks, 39 co operative and 4 rural banks in Mahendragarh.

18.12.4. Workforce Distribution in the district

18.12.4.1. Current Employment Scenario in Mahendragarh

Main Worker participation rate of 25.19 percent in the district is lower than the state average number of 28.66 percent. Agriculture is the major source of livelihood with about 66 percent²⁹³ of the total work force employed in agriculture, compared to 51.29 percent of state's value. Female work participation in the district is low in comparison to male work participation, in line with the state level trend.

Region	Main Worker Participation	Marginal Worker	Overall Non-Workers	Rural Non-Workers	Urban Non-Workers
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²⁹² <http://nrhm-mis.nic.in/UI/RHS/RHS%202011/District-wise%20Health%20Centres.pdf>

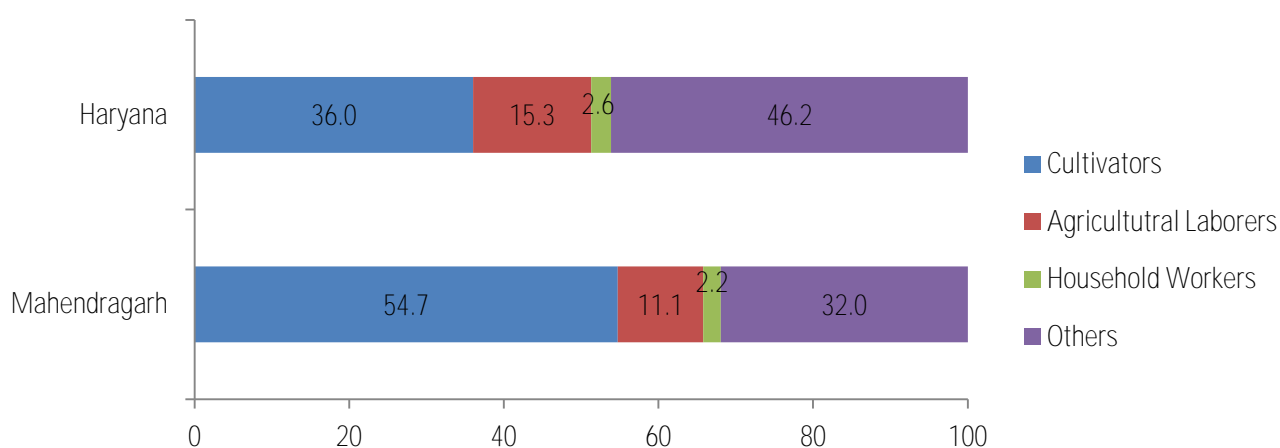
²⁹³ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

		Participation			
Mahendragarh	25.19 %	18.11 %	49.96%	48.81%	56.77%
Haryana	28.66 %	10.10 %	50.36%	33.83%	16.52%

Source: Haryana Statistical Abstract 2011-12

High rate of marginal worker participation shows that the nature of occupation is seasonal and the disguised unemployment is high in the district.

Distribution of Working Population in Mahendragarh



Source: Haryana Statistical Abstract 2011-12

18.1.4.23. Estimation of Supply of Manpower in the District

District wise incremental supply estimates were arrived at, based on Planning Commission Population Estimates from 2001 population considering birth rate, death rate and life expectancy normalized against population corrections in 2011.

State/ District	Labour Force Supply (2012-17)			Labour Force Supply (2017-22)		
	Gross Addition to Working Age Population	Gross Addition to Labour Force	Net Addition to Labour Force-Supply	Gross Addition to Working Age Population	Gross Addition to Labour Force	Net Addition to Labour Force-Supply
Haryana	2,648,032	1,273,703	727,206	2,421,060	1,164,530	496,173
Mahendrag						

arh	96,315	34,028	19,428	88,059	31,112	13,256
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Source: KPMG Analysis

18.1.4.24. Incremental Supply of Labour force in the District

District wise incremental supply estimates were arrived at based on Planning Commission Population Estimates from 2001 population considering birth rate, death rate and life expectancy normalized against population corrections in 2011.

Region	Supply 2012-17			Supply 2017-22		
	Skilled	Semi - Skilled	Minimally Skilled	Skilled	Semi-Skilled	Minimally skilled
Mahendragarh	14,497	2,752	2,179	9,892	1,877	1,487
Haryana	195,716	75,683	455,808	133,537	51,638	310,998

Source: KPMG Analysis

18.7.1.1 Incremental Manpower Requirement in the District

Incremental manpower requirement in the district of district has been estimated based on several parameters such as investments into various sectors in the district for the past 10 years, national level benchmarks on industrial growth across sectors, national inclusion targets for sectors such as banking and healthcare, employment generation potential of various sectors based on labour elasticity and market based insights from discussions with industries in district.

Sector wise skill level requirements during 2012-22

Sub Sectors	Mahendragarh					
	2012-17			2017-22		
	Skilled	Semi-skilled	Unskilled	Skilled	Semi-skilled	Unskilled
Agriculture & Allied Activities	-	-	(3,211)	-	-	(3,156)
Banking and Financial Services	218	654	-	223	670	-
Communication	161	482	-	163	490	-
Construction	293	586	4,982	261	522	4,435

Construction Based Material	35	138	173	42	169	211
Education and Training	3	23	-	(15)	(103)	-
Food Processing	17	68	99	23	88	128
Healthcare	511	2,045	-	486	1,945	-
Hospitality	18	27	135	16	24	121
Retail	378	378	3,025	448	448	3,584
Transportations and Logistics	210	3,328	3,959	272	4,312	5,130
Total	1,856	7,777	9,223	1,932	8,616	10,519

Please note that only the industries with significant manpower demand have been individually highlighted in the table.
Source: KPMG Analysis

Skill requirements in key growth sectors have been analyzed based on industry interactions to understand the detailed manpower needs. Sector level skill interventions are indicated in the section below²⁹⁴.

- Agri Allied

Category of Skills	Skills
Core Skills	Modern rearing techniques of live stock, piggery, goatery and fisheries
Allied Skills	Knowledge on processing techniques
Skills with acute shortage	Marketing and distribution of forest/animal husbandry produce

- Construction

Category of Skills	Skills
Core Skills	Electricians, carpenters, barbenders, welders and masons
Allied Skills	Minimally skilled workers
Skills with acute shortage	Machine Operators

²⁹⁴ KPMG Analysis

- Transportation and Logistics

Category of Skills	Skills
Core Skills	Heavy vehicle drivers, logistics management
Allied Skills	Administrative, computer data management
Skills with acute shortage	Scheduling and logistics planning

- Organized Retail

Category of Skills	Skills
Core Skills	Shop floor executives/supervisors, computer operator
Allied Skills	Transportation & logistics staff
Skills with acute shortage	Store management, stock planning

18.12.5. Human Resource Development in the District

18.12.5.1. Current State of Workforce Development

Overall, the penetration of higher education in Mahendragarh is higher than the state average.

Comparison of higher education infrastructure in Mahendragarh with Haryana

Category of College	Haryana	Mahendragarh
Arts, Science and Commerce	192	8
Engineering/Technology/Architecture	168	6
Medical (Allopathy/Dentistry/Homeopathy)	27	-
Education/Teacher training	472	50
Law	11	-
Others	17	-

Total	887	64
Density(Colleges per Thousand Population)	0.04	0.06

Source: Haryana Statistical Abstract 2011-12

The contribution of the district is low when compared to the state average in the vocational training infrastructure. Mahendragarh has a total of 11 Industrial Training Institutes.

Details of vocational education infrastructure in Mahendragarh

District Wise ITI/ITC Infrastructure (2011)							
Region	Number			Sanctioned Intake			Density(Seats per Thousand Population)
	Govt ITI	Private ITI	Total	Govt ITI	Private ITI	Total	
Haryana	131	94	225	39140	12804	51944	2.05
Mahendragarh	7	4	11	1540	464	2004	2.17

Source: Department of Industrial training and Vocational Education, Haryana

ITI Mahendragarh offers 19 courses including carpentry, COPA, Draughtsman civil, draughtsman mechanical, electrician, electronics mechanic, fitter, machinist, MCOECS, mechanic motor vehicle, mechanic radio & TV, mechanic red. & air conditioning, mechanic tractor, foundryman, sheet metal worker, Stenography Hindi, turner, welder and wireman. The other ITIs offer a subset of these courses.

18.12.5.2. Youth Interaction outcomes

The youth in the district exhibited a higher preference towards employment as compared to entrepreneurship. Several factors such as poor financial capacity, work environment and socio-cultural factors influenced youth preferences towards employment. There was a strong inclination towards government jobs over private jobs.

The youth from Mahendragarh was willing to migrate to other districts / states in want of better employment opportunities. The minimum salary expectations from migration were upwards of INR 10,000 per month. Overall, the career awareness about employment opportunities was low in the district.

Source: Primary Discussion with local youth, ITI student and village sarpanchs

18.12.5.3. Other Skill Mapping and Developmental Concerns

There are no medium/large scale industries in Mahendragarh. The prominent small scale units are related to steel fabrication, Agro and desert cooler making. The other known industries are Mini cement plants, grinding units, Slate cutting, Oil expellers and mosaic and granite cutting.

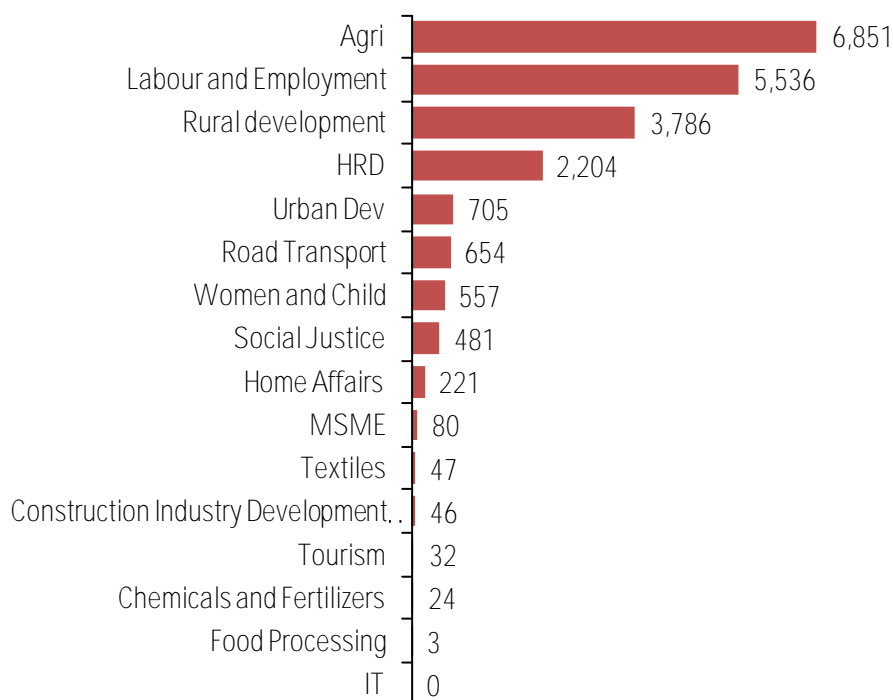
Small scale industries have a small employee base and lower attrition rates. Thereby, they don't high yearly manpower requirements and same is met through internal employee referrals in each unit. Further, the industry opined that the ITI's are not industry ready and require a structured training for both technical and non technical skills. The students from ITI were seen to lack even basic trade related knowledge and machine handling skills. There were issues around attitude, flexibility and high salary expectations amongst local youth. However, since these units don't have the system to support training to address such issues and the mode of training for them largely remains as on-job training.

Source: Primary Discussion with industry representatives, ITI Principal and Teachers

18.12.5.4. Incremental Training Capacity in the District through Government Endowments

According to KPMG estimates, based on the potential district budgetary allocation for various central government schemes around 21 thousand people in total can be trained incrementally during the five year period of 2012-17. Ministry of Agriculture has significant training mandates in the district.

Potential Training Capacity in Mahendragarh during 2012-17



Source: KPMG Analysis, Training Plans as per various Ministries/ Departments / Organizations

18.12.6. District Specific Recommendations

Stakeholder	Action Points
NSDC	<p>Creating a favorable and positive skill environment in the district</p> <p>A majority of youth in the district continue to perceive 'skill acquisition' poorly and consider enrolling in an ITI/ITC in the region as a last resort.</p> <p>Awareness campaigns about benefit of acquiring vocational education at the village level in collaboration with NGOs and Community based organizations. Identify high-performing and motivated students and provide scholarships for higher education.</p>
Skill Development Training Providers	<p>Introduction of self employment focused courses</p> <p>The district has low presence of medium and large scale industries. However, smaller self employment opportunities like repairing and servicing remains prominent within the district. Hence, courses focused on similar courses.</p> <p>Focus on soft skill training to students</p> <p>Attitude and professional conducts remains a major challenge amongst local youth.</p> <p>Targeted training modules for soft skills to be developed and imparted to students. Facilitate camps to address behavioural and professional issue amongst students</p>
Industry	<p>Support teacher training initiatives</p> <p>Industry should conduct teacher training programs from faculty from local institutes with an aim to improve quality of training delivery and relevance of pedagogy to industry</p>
District Administration	<p>Focus on training in agricultural products and processing</p> <p>There is a high dependence on primary sector in the district. However, most of the farmers are still engaged in traditional crops and have low awareness about new crops (Fruits and vegetables) or opportunities farm mechanization</p> <p>Facilitate trainings to apprise farmers about new agro and food processing opportunities, benefits of farm mechanization etc</p> <p>Facilitate women participation in skill development</p> <p>Facilitate formation of SHG's which will involve more women with an aim to empower the women</p>

18.13 Skill Gap Assessment of Mewat District

18.13.1. Administrative Profile

Mewat is bordered by Gurgaon to the north, Palwal to the east and Rajasthan to the west and south.

The area of district is 1494 sq km, which accounts for 3.4 percent of the total share of state area²⁹⁵. Administratively, the district has been divided into two sub divisions (Ferozpur Jhirka and Nuh); four tehsils (Ferozpur Jhirka, Punhana, Nu and Taorun) and five blocks (Ferozpur Jhirka, Punhana, Nagina, Nuh and Taoru).

18.13.2. Social Profile

18.13.2.1. Demographics

As per Census 2011, Mewat has a population of 10.8 lakhs, contributing to 4.3 percent of the total state population. The district population has grown at a decadal growth rate of 37.93 percent in the period of 2001-11.

An overwhelming majority of the population in the district is rural in nature, 88.61 percent²⁹⁶. The population density of the district standing at 723 persons per sq.km, is much higher than the state average of 573 persons per sq.km²⁹⁷.

The child gender ratio of Mewat is better than most other districts of Haryana and has improved a lot over the past ten years (increased from 893 females per 1000 males in 2001 to 903 females per 1000 males in 2011), the adult gender ratio also fares much better than the state average from 899 females per 1000 males in 2001, to 906 females per 1000 males in 2011²⁹⁸ this is above the state average of 877 females per 1000 males.

Scheduled caste population in the district is lowest in the state, much lower than other districts of the state, occupying a share of 7.93²⁹⁹ percent of total population compared to the state average of 19.35 %. There are no Scheduled Tribes in Mewat.

18.13.2.2. Literacy

The district literacy rate of 54.08 percent is the lowest in the state (up from 43.51 percent in 2001). It is much lower than the state average of 75.55 percent³⁰⁰. The gender disparity in education attainment levels is also prominent with a low female literacy rate of 36.6 percent when compared to the male literacy rate of 69.94 percent.

The school infrastructure in Mewat is dismal as seen by the lowest number of school going children in the state. The table shows a comparison of Mewat and Palwal (They have comparable population). Though with continued efforts the situation has improved at the Primary level, at higher levels there is a scope for improvement.

Region	Primary Level (I-V)	Middle Level (VI-VIII)	Secondary Level (IX-XII)
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²⁹⁵Haryana State Statistical Abstract 2011-12

²⁹⁶http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

²⁹⁷http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

²⁹⁸http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

²⁹⁹http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

³⁰⁰http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

Mewat	151838	23707	20706
Palwal	138939	49918	38273

Number of recognized schools and student enrollments in Mewat

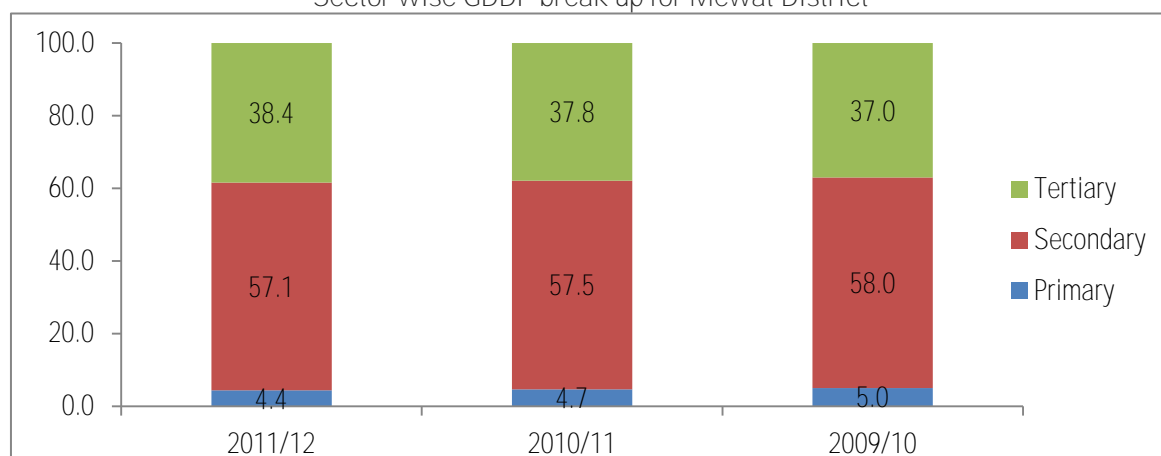
Region	Primary Level	Middle Level	Secondary Level
Number of schools	629	311	110
Number of scholars	151838	23707	20706

Source: Haryana Statistical Abstract 2011-12

18.13.3. District Economy

The district of Mewat is one of the most backward regions of the state. Within various sub-sectors, the share of primary sector is low.

Sector wise GDDP break up for Mewat District



Source: Indicus Database 2011-12

18.13.3.1. Agriculture and Allied sectors

Agriculture employs a large portion of the working population. The composition of the land holding in the district is shown below benchmarked against the same for the overall state.

The average land holding size of 1.48 hectares for Mewat is much smaller than the state average of 2.25 hectares³⁰¹.

Composition of the land holding in the district benchmarked against the same for the overall state

Region	Below 1 Hectares	1-3 Hectares	3-5 Hectares	5-10 Hectares	Larger than 10 Hectares
Mewat	49,575	17,002	5,672	2,974	944
Haryana	7,78,142	4,89,777	1,79,665	1,23,898	45,829

Source: Haryana Statistical Abstract 2011-12

Agriculture is the backbone of the district Mewat as there are no industries to provide employment to rural as well as urban people. The majority of the population is engaged in agriculture. The productivity of field crops, vegetable crops and animals in general is comparatively and considerably low on account of prevailing resource base and its utilization, educational, social and economic conditions of people, lack of awareness and adoption of improved farm practices, reach and sensitization of staff of different government departments and other agencies to the local needs and social environment³⁰².

The net irrigated area is also the lowest for Mewat in the state of Haryana; it stands at 28.6 percent against the state average of 82.6 percent³⁰³. Agriculture is mostly rain fed with a few government canals present.

The major cropping systems under the existing farming system are bajra / jowar – wheat, fallow mustard, guar- wheat & guar-mustard. Buffalo and Goat are the main component under animal husbandry.

Dairy is an essential component of rural areas of the district. There is a long tradition of rearing dairy animals by the farmers in the district.

18.13.3.2. Industry

Among Small Scale Industries agro based, cotton textile, readymade garments, leather based, wood based, repairing service, metal based, Engineering units and chemical based industries enjoy some investment and employ the maximum number of people.

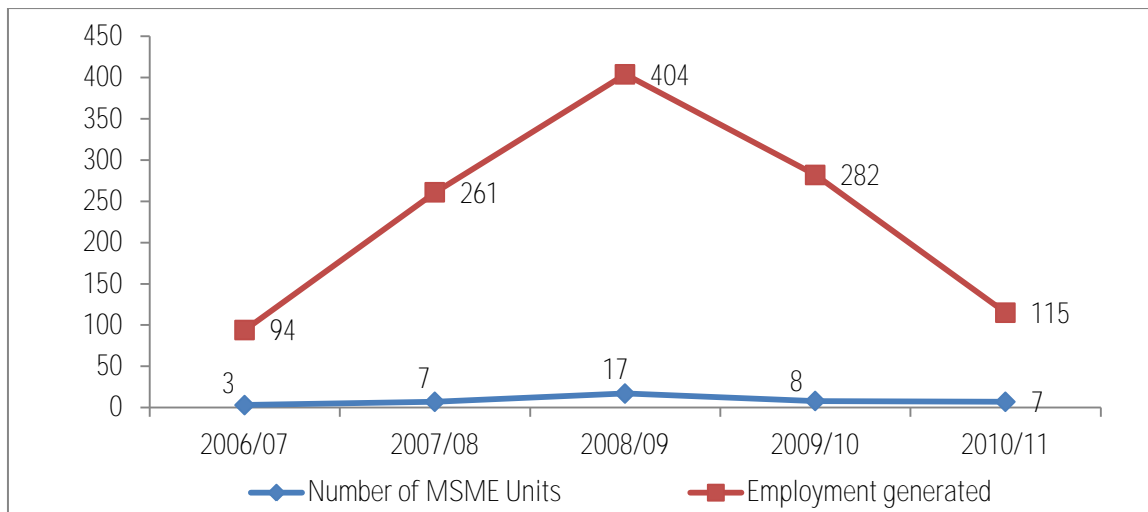
As per 2011 provisional data, there are 42 registered Industrial Units in the district employing 800 workers in the small scale industries segment and 1200 workers in large and medium industries. Between 2006-07 and 2011-12, Medium-Small Scale Industries segment has witnessed some growth generating additional employment during the period.

MSME growth trends in Mewat district

³⁰¹ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

³⁰² <http://www.crida.in/>

³⁰³ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)



Source: Brief Industrial Profile Mewat District

Based on discussions with District Industries Center, following potential MSME growth clusters are identified in Mewat district.

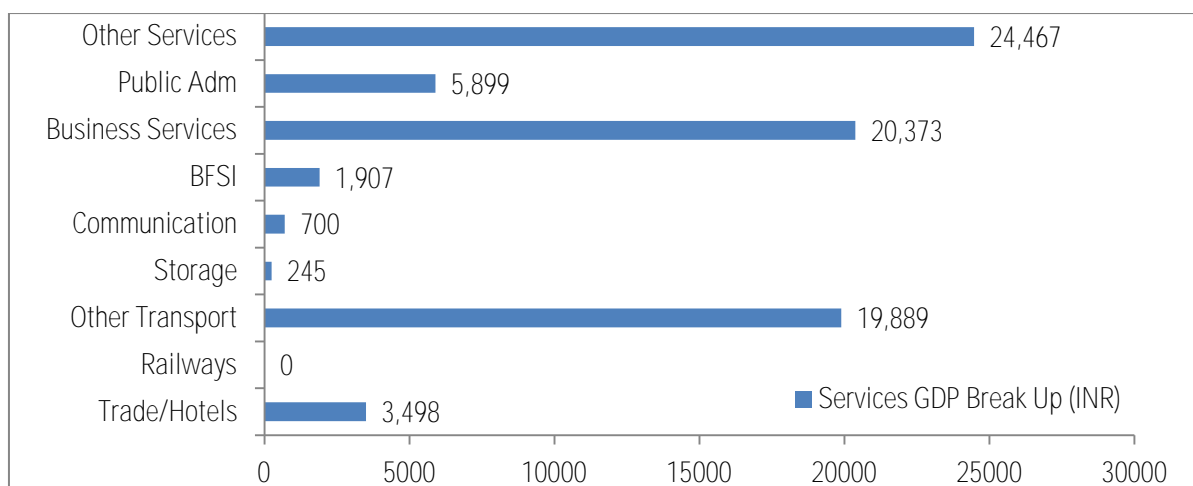
Existing Clusters	Clusters Identified for Promotion
-	<ul style="list-style-type: none"> • Agro based industries • Automobiles Industries

Source: Primary Discussion DIC, Brief Industrial Profile Mewat District

18.13.3.3. Services Sector

Like most other sectors of the economy the service sector also performs miserably in Mewat. Despite it being in the National Capital Region the district has failed to utilize the infrastructure that has been made available to it. It lags behind in nearly all sub sectors of the service sector.

Sub-sector wise contribution of services income (2005-06)



Penetration of healthcare facilities measured in terms of patients treated per bed, at 1249 per bed is much higher than the state average of 1522 per bed. District has 13 PHCs and 3 CHCs along with 84 Sub centers with limited private participation³⁰⁴. With an ever increasing population and fast paced industrial growth the district is expected to witness significant healthcare expenditure over the next decade. Details of healthcare infrastructure in the district are provided in the table.

Details of healthcare infrastructure in the district

Category	Number of Institutions
Allopathic Hospitals	1
Ayurvedic Institutions	15
Unani/Homeopathic Institutions	12
Primary Health Centers (PHCs)	13
Community Health Centers (CHCs)	3
Dispensaries	4
Total	48

Source: Haryana Statistical Abstract 2011-12

18.13.4.

Mewat has a poor penetration of banking and financial services. There are 21 commercial banks, 21 co operative and 30 rural banks in Mewat³⁰⁵.

³⁰⁴<http://nrhm-mis.nic.in/UI/RHS/RHS%202011/District-wise%20Health%20Centres.pdf>

³⁰⁵<http://dcmsme.gov.in/>

18.13.5. Workforce Distribution in the district

18.13.5.1. Current Employment Scenario in Mewat

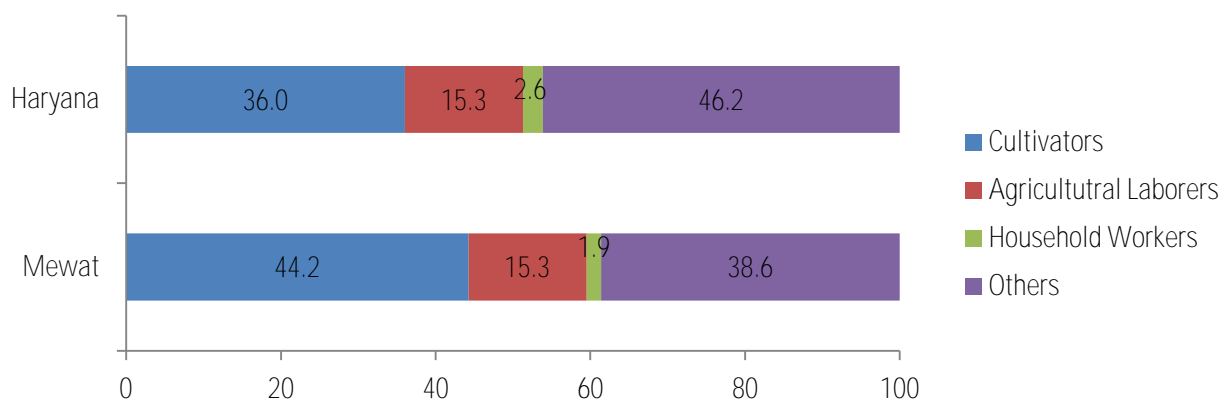
Main Worker participation rate of 24.82 percent in the district is lower than the state average number of 28.66 percent³⁰⁶. Agriculture is the major source of livelihood. Female work participation in the district is low in comparison to male work participation, in line with the state level trend.

Region	Main Worker Participation	Marginal Worker Participation	Overall Non-Workers	Rural Non-Workers	Urban Non-Workers
Mewat	24.82 %	15.08 %	55.3%	50.8%	4.4%
Haryana	28.66 %	10.10 %	50.36%	33.83%	16.52%

Source: Haryana Statistical Abstract 2011-12

High rate of marginal worker participation shows that the nature of occupation is seasonal and the disguised unemployment is high in the district.

Distribution of Working Population in Mewat



Source: Haryana Statistical Abstract 2011-12

18.1.4.25. Estimation of Supply of Manpower in the District

District wise incremental supply estimates were arrived at, based on Planning Commission Population Estimates from 2001 population considering birth rate, death rate and life expectancy normalized against population corrections in 2011.

³⁰⁶ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

State/ District	Labour Force Supply (2012-17)			Labour Force Supply (2017-22)		
	Gross Addition to Working Age Population	Gross Addition to Labour Force	Net Addition to Labour Force-Supply	Gross Addition to Working Age Population	Gross Addition to Labour Force	Net Addition to Labour Force-Supply
Haryana	2,648,032	1,273,703	727,206	2,421,060	1,164,530	496,173
Mewat	113,777	44,947	25,662	104,024	41,095	17,509

Source: KPMG Analysis

18.1.4.26. Incremental Supply of Labour force in the District

District wise incremental supply estimates were arrived at based on Planning Commission Population Estimates from 2001 population considering birth rate, death rate and life expectancy normalized against population corrections in 2011.

Region	Supply 2012-17			Supply 2017-22		
	Skilled	Semi - Skilled	Minimally Skilled	Skilled	Semi- Skilled	Minimally skilled
Mewat	2,265	1,664	21,733	1,546	1,135	14,828
Haryana	195,716	75,683	455,808	133,537	51,638	310,998

Source: KPMG Analysis

18.7.1.1 Incremental Manpower Requirement in the District

Incremental manpower requirement in the district of district has been estimated based on several parameters such as investments into various sectors in the district for the past 10 years, national level benchmarks on industrial growth across sectors, national inclusion targets for sectors such as banking and healthcare, employment generation potential of various sectors based on labour elasticity and market based insights from discussions with industries in district.

Sector wise skill level requirements during 2012-22

Sub Sectors	Mewat					
	2012-17			2017-22		

	Skilled	Semi-skilled	Unskilled	Skilled	Semi-skilled	Unskilled
Agriculture & Allied Activities	-	-	(628)	-	-	(617)
Auto and Auto Components	19	76	95	23	92	116
Banking and Financial Services	992	2,977	-	1,016	3,048	-
Communication	512	1,537	-	521	1,563	-
Construction	1,321	2,642	22,460	1,176	2,352	19,996
Education and Training	615	4,141	-	195	1,315	-
Healthcare	892	3,569	-	905	3,619	-
Retail	27	27	219	25	25	196
Transportations and Logistics	730	11,591	13,791	946	15,021	17,871
Total	5,135	26,646	36,085	4,836	27,133	37,722

Source: KPMG Analysis

Skill requirements in key growth sectors have been analyzed based on industry interactions to understand the detailed manpower needs. Sector level skill interventions are indicated in the section below³⁰⁷.

- Construction

Category of Skills	Skills
Core Skills	Electricians, carpenters, barbenders, welders and masons
Allied Skills	Minimally skilled workers
Skills with acute shortage	Machine Operators

- Transportation and Logistics

Category of Skills	Skills

³⁰⁷ KPMG Analysis

Core Skills	Heavy vehicle drivers, logistics management
Allied Skills	Administrative, computer data management
Skills with acute shortage	Scheduling and logistics planning

- Banking and Financial

Category of Skills	Skills
Core Skills	Knowledge on core banking/mobile/internet platforms
Allied Skills	Sales and Marketing
Skills with acute shortage	Insurance underwriting, claims management

- Organized Retail

Category of Skills	Skills
Core Skills	Shop floor executives/supervisors, computer operator
Allied Skills	Transportation & logistics staff
Skills with acute shortage	Store management, stock planning

- Healthcare

Category of Skills	Skills
Core Skills	MBBS Doctors, MD/MS specialists, Physician Assistants/Compounders, Radiologists, Dialysis technician, Respiratory technician and OT Assistants & Perfusionist.
Allied Skills	Lab technicians, pharmacists
Skills with acute shortage	Physiotherapists, Biomedical Instrumentation technicians

18.13.6. Human Resource Development in the District

18.13.6.1. Current State of Workforce Development

Overall, the penetration of higher education in Mewat is very low as compared to most other districts in Haryana.

Comparison of higher education infrastructure in Mewat with Haryana

Category of College	Haryana	Mewat
Arts, Science and Commerce	192	2
Engineering/Technology/Architecture	168	3
Medical (Allopathy/Dentistry/Homeopathy)	27	-
Education/Teacher training	472	5
Law	11	-
Others	17	-
Total	887	10
Density(Colleges per Thousand Population)	0.04	0.009

Source: Haryana Statistical Abstract 2011-12

The contribution of the district is very low when compared to the state average in the vocational training infrastructure. Mewat has a total of only 4 Industrial Training Institutes.

Details of vocational education infrastructure in Mewat

District Wise ITI/ITC Infrastructure (2011)							
Region	Number			Sanctioned Intake			Density(Seats per Thousand Population)
	Govt ITI	Private ITI	Total	Govt ITI	Private ITI	Total	
Haryana	131	94	225	39140	12804	51944	2.05
Mewat	4	0	4	536	0	536	0.49

Source: Department of Industrial training and Vocational Education, Haryana

ITI Firozpur Jhikra offers 12 courses including COPA, draughtsman civil, electrician, fitter, machinist grinder, mechanic tractor, welder, wireman, machinist turner and carpenter. The other ITIs offer a subset of these courses.

18.13.6.2. Youth Interaction outcomes

Youth in the district exhibited a high preference towards employment over entrepreneurship. Several factors such as poor financial capacity, work environment and socio-cultural factors influenced youth preferences towards employment.

There was a high inclination towards government jobs over private jobs. Within private industry, students exhibited high preference towards Automobile and Tier 1 Auto Component companies like Maruti, Sona Koyo. The students were open to migration to not only other areas within India like Gurgaon, Bombay but also to Gulf. However, the entry level salary expectations for mobility were high at around INR 15,000 per month. There is a poor perception of ITI as a course as was seen as a least preferred career education option.

Source: Primary Discussion with local youth, ITI student and village sarpanchs

18.13.6.3. Other Skill Mapping and Developmental Concerns

Mewat district was carved out of Gurgaon and Faridabad and has the advantage of bordering industrially developed district. However, it has not been able to leverage it to its benefit inspite of having land, owing to poor infrastructure, non availability of skilled and semi skilled workforce in the district.

While, government is working on the former, there is need for intervention to meet the manpower requirement. The existing industries in the district have highlighted issues in both quality and quantity of technical manpower in Mewat. For students graduating out of Polytechnics and ITI's , the level of technical and practical training is very limited and significant investment is required to retrain the students.

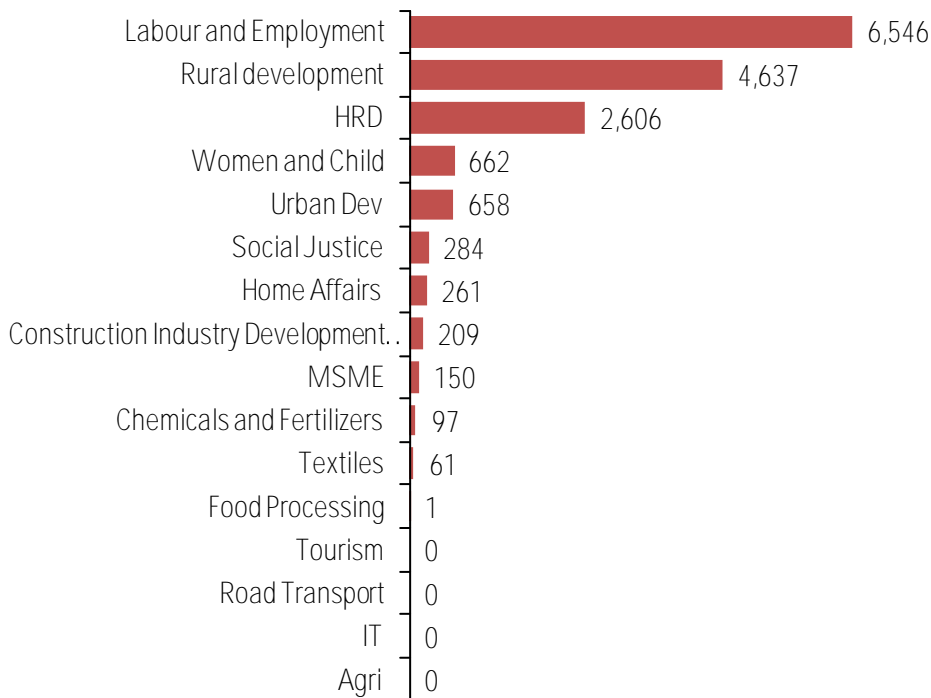
There is also a serious mismatch between entry level salary expectations and pay scale offered by the industry. The students expect almost double the entry level offered and hence affecting their motivation to work. Meanwhile, the awareness about career opportunities was low amongst students across streams.

Source: Primary Discussion with industry representatives, ITI Principal and Teachers

18.13.6.4. Incremental Training Capacity in the District through Government Endowments

According to KPMG estimates, based on the potential district budgetary allocation for various central government schemes around 16 thousand people in total can be trained incrementally during the five year period of 2012-17. Ministry of Labour and Employment has significant training mandates in the district.

Potential Training Capacity in Mewat during 2012-17



Source: KPMG Analysis, Training Plans as per various Ministries/ Departments / Organizations

18.13.7. District Specific Recommendations

Stakeholder	Action Points
NSDC	<p>Creating a favorable and positive skill environment in the district</p> <p>A majority of youth in the district continue to perceive 'skill acquisition' poorly and consider enrolling in an ITI/ITC in the region as a last resort.</p> <p>Awareness campaigns about benefit of acquiring vocational education at the village level in collaboration with NGOs and Community based organizations. Identify high-performing and motivated students and provide scholarships for higher education.</p>
Skill Development Training Providers	<p>Focus on soft skill training to students</p> <p>Attitude and professional conducts remains a major challenge amongst local youth.</p> <p>Targeted training modules for soft skills to be developed and imparted to students. Facilitate camps to address behavioural and professional issue amongst students</p> <p>Introduction of industry relevant skills with focus on placements</p> <p>Mewat can potentially be a source of skilled manpower even to nearby districts like Gurgaon and Faridabad. Therefore, Relevant courses/modules aimed at auto components, mechanical, electrical, electronic which are high contributors in these districts should be focused upon by the training</p>

	providers.
Industry	<p>Support teacher training initiatives</p> <p>Industry should conduct teacher training programs from faculty from local institutes with an aim to improve quality of training delivery and relevance of pedagogy to industry</p>
District Administration	<p>Facilitate women participation in skill development</p> <p>Facilitate formation of SHG's which will involve more women with an aim to empower the women</p>

18.14 Skill Gap Assessment of Palwal District

18.14.1. Administrative Profile

The district of Palwal was carved out of erstwhile Faridabad and some parts of Mewat in the year 2008. Palwal is bordered by Faridabad to the north, Gurgaon to the east, Uttar Pradesh to the west and Mewat to the south. The area of district is 1368 sq km, which accounts for 3.1 percent of the total share of state area³⁰⁸.

Administratively, the district has been divided into three sub divisions (Palwal, Hodel and Hathin); three tehsils (Palwal, Hodel and Hathin) and five blocks (Palwal, Hodel, Hassanpur, Hathin and Prithla).

18.14.2. Social Profile

18.14.2.1. Demographics

As per Census 2011, Palwal has a population of 10.42 lakhs, contributing to 4.11 percent of the total state population. The district population has grown at a decadal growth rate of 25.76 percent in the period of 2001-11.

An overwhelming majority of the population in the district is rural in nature, 77.31 percent³⁰⁹. The population density of the district standing at 767 persons per sq.km., is much higher than the state average of 573 persons per sq.km³¹⁰.

The child gender ratio of Palwal is better than most other districts of Haryana and has improved a lot over the past ten years (increased from 854 females per 1000 males in 2001 to 862 females per 1000 males in 2011). The adult gender ratio also fares much better than the state average from 862 females per 1000 males in 2001, to 979 females per 1000 males in 2011.³¹¹ This is above the state average of 877 females per 1000 males.

18.14.2.2. Literacy

The district literacy rate of 69.32 percent is also one of the lowest in the state (up from 59.19 percent in 2001). It is much lower than the state average of 75.55 percent³¹².

The gender disparity in education attainment levels is also prominent with a low female literacy rate of 54.23 percent when compared to the male literacy rate of 82.66 percent.

The school infrastructure in Palwal is dismal as seen by one of the worst pupil teacher ratio in the state. The table shows a comparison of Palwal and Haryana. Though with continued efforts the situation has improved at the Middle level, at Primary and High school levels there is a scope for improvement.

Number of Schools per Thousand School Going Children in Palwal benchmarked against that of Haryana

³⁰⁸Haryana State Statistical Abstract 2011-12

³⁰⁹http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

³¹⁰http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

³¹¹http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

³¹²http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

Region	Primary Level	Middle Level	High School Level
Palwal	65	38	46
Haryana	38	51	26

Number of recognized schools and student enrolments in Palwal

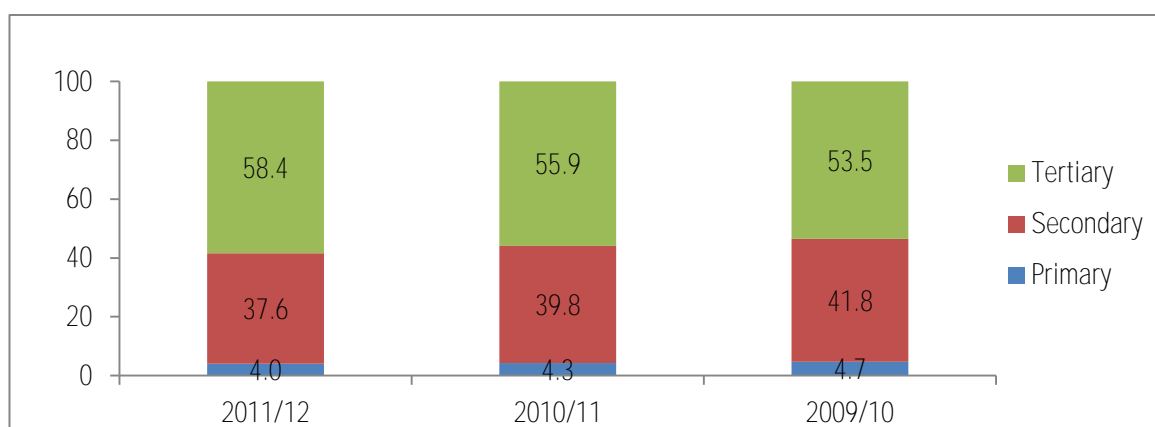
Region	Primary Level	Middle Level	Secondary Level
Number of schools	270	171	622
Number of scholars	63,265	21,910	1,18,815

Source: Haryana Statistical Abstract 2011-12

18.14.3. District Economy

Since Palwal was only carved out in 2008, it is still in a very nascent stage in its development. The district's economy is dependent on agriculture and cotton textile industry. The district also has historical significance and attracts a small number of tourists on an annual basis.

Sub-Sector wise GDDP break up for Palwal District



Source: Planning Commission, State Wise District Domestic Product (Data)

18.14.3.1. Agriculture and Allied sectors

Agriculture employs a significant portion of working population inspite of its low contribution to economy. The composition of the land holding in the district is shown below benchmarked against the same for the overall state.

The average land holding size of 1.67 hectares for Palwal is much smaller than the state average of 2.25 hectares.³¹³

Composition of the land holding in the district benchmarked against the same for the overall state

Region	Below 1 Hectares	1-3 Hectares	3-5 Hectares	5-10 Hectares	Larger than 10 Hectares
Palwal	47,011	23,379	6,671	2,917	764
Haryana	7,78,142	4,89,777	1,79,665	1,23,898	45,829

Agriculture is the backbone of the district Palwal as there are little industries to provide employment to rural as well as urban people. The majority of the population is engaged in agriculture. The productivity of field crops, vegetable crops and animals in general is comparatively and considerably low on account of prevailing resource base and its utilization³¹⁴. The net irrigated area is also the lowest for Palwal in the state of Haryana. Government Canals and Tube wells are the major sources of irrigation.

The major cropping systems under the existing farming system are bajra / jowar – wheat, fallow mustard, guar- wheat & guar-mustard. Buffalo and Goat are the main component under animal husbandry.

Palwal is an important area for fishing and has one of the largest areas in the state for fishing (1159 hectares)³¹⁵.

18.14.3.2. Industry

Palwal is not very well developed in terms of industry as a result of which most of the rural and urban population is employed in agriculture.

Among Small Scale Industries agro based, cotton textile, readymade garments, mineral, wood based, repairing service, metal based, Engineering units and electrical machinery industries enjoy some investment and employ the maximum number of people.

As per 2011 provisional data, there are 73 registered Industrial Units in the district employing 7,200 workers in the small scale industries segment and 8,000 workers in large and medium industries.

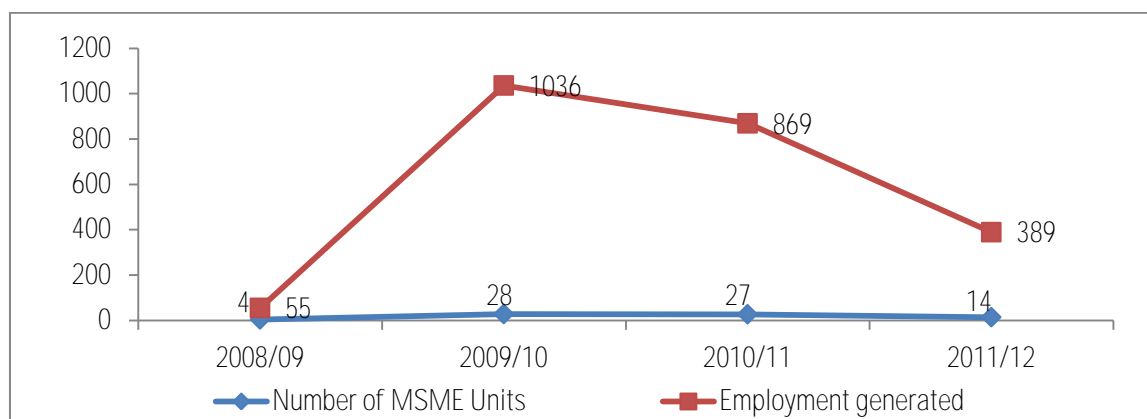
Between 2008-09 and 2011-12³¹⁶, Medium-Small Scale Industries segment has witnessed some growth generating additional employment during the period.

³¹³ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

³¹⁴ <http://www.crida.in/>

³¹⁵ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

MSME growth trends in Palwal district



Source: Brief Industrial Profile MSME, Palwal

Based on discussions with District Industries Center, following potential MSME growth clusters are identified in Palwal district.

Existing Clusters	Clusters Identified for Promotion
<ul style="list-style-type: none"> - 	<ul style="list-style-type: none"> Auto Component Cluster

Source: Primary Discussion with DIC, Brief Industrial Profile MSME, Palwal

18.14.3.3. Services Sector

Like most other sectors of the economy the service sector also performs miserably in Palwal. Despite it being in the National Capital Region the district has failed to utilize the infrastructure that has been made available to it. It lags behind in nearly all sub sectors of the service sector.

Penetration of healthcare facilities measured in terms of patients treated per bed, at 1379 per bed is a little lower than the state average of 1522 per bed. District has 13 PHCs and 4 CHCs along with 88 Sub centers with limited private participation³¹⁷. With an ever increasing population and fast paced industrial growth the district is expected to witness significant healthcare expenditure over the next decade.

Details of healthcare infrastructure in the district

Category	Number of Institutions
Allopathic Hospitals	1

³¹⁶ <http://dcmsme.gov.in/>

³¹⁷ <http://nrhm-mis.nic.in/UI/RHS/RHS%202011/District-wise%20Health%20Centres.pdf>

Ayurvedic Institutions	13
Unani/Homeopathic Institutions	5
Primary Health Centers (PHCs)	13
Community Health Centers (CHCs)	4
Dispensaries	2
Total	38

Source: Haryana Statistical Abstract 2011-12

Palwal has a poor penetration of banking and financial services. There are 52 commercial banks, 23 co operative and 29 rural banks in Palwal.

18.14.4. Workforce Distribution in the district

18.14.4.1. Current Employment Scenario in Palwal

Since Palwal is a recently created district, there was no data available in this respect.

18.1.4.27. Estimation of Supply of Manpower in the District

District wise incremental supply estimates were arrived at, based on Planning Commission Population Estimates from 2001 population considering birth rate, death rate and life expectancy normalized against population corrections in 2011.

State/ District	Labour Force Supply (2012-17)			Labour Force Supply (2017-22)		
	Gross Addition to Working Age Population	Gross Addition to Labour Force	Net Addition to Labour Force-Supply	Gross Addition to Working Age Population	Gross Addition to Labour Force	Net Addition to Labour Force-Supply
Haryana	2,648,032	1,273,703	727,206	2,421,060	1,164,530	496,173
Palwal	108,914	47,188	26,941	99,578	43,143	18,382

Source: KPMG Analysis

18.1.4.28. Incremental Supply of Labour force in the District

District wise incremental supply estimates were arrived at based on Planning Commission Population Estimates from 2001 population considering birth rate, death rate and life expectancy normalized against population corrections in 2011.

Region	Supply 2012-17			Supply 2017-22		
	Skilled	Semi - Skilled	Minimally Skilled	Skilled	Semi-Skilled	Minimally skilled
Palwal	3,171	1,705	22,065	2,164	1,164	15,055
Haryana	195,716	75,683	455,808	133,537	51,638	310,998

Source: KPMG Analysis

18.7.1.1 Incremental Manpower Requirement in the District

Incremental manpower requirement in the district of district has been estimated based on several parameters such as investments into various sectors in the district for the past 10 years, national level benchmarks on industrial growth across sectors, national inclusion targets for sectors such as banking and healthcare, employment generation potential of various sectors based on labour elasticity and market based insights from discussions with industries in district.

Sector wise skill level requirements during 2012-22

Sub Sectors	Palwal					
	2012-17			2017-22		
	Skilled	Semi-skilled	Unskilled	Skilled	Semi-skilled	Unskilled
Agriculture & Allied Activities	-	-	(966)	-	-	(949)
Auto and Auto Components	38	151	188	48	191	239
Banking and Financial Services	2,674	8,021	-	2,737	8,212	-
Communication	460	1,380	-	468	1,404	-
Construction	1,747	3,494	29,695	1,555	3,110	26,437
Construction Based Material	79	314	393	96	383	479

Education and Training	532	3,581	-	115	776	-
Fabricated metal products	36	144	180	35	140	175
Food Processing	24	95	138	31	120	176
Healthcare	1,140	4,561	-	1,121	4,485	-
Retail	781	781	6,252	700	700	5,600
Transportations and Logistics	464	7,361	8,758	632	10,031	11,934
Total	8,014	30,043	44,838	7,587	29,747	44,333

Please note that only the industries with significant manpower demand have been individually highlighted in the table.
Source: KPMG Analysis

Skill requirements in key growth sectors have been analyzed based on industry interactions to understand the detailed manpower needs. Sector level skill interventions are indicated in the section below³¹⁸.

- Auto Components

Category of Skills	Skills
Core Skills	Motor Mechanic, Diesel Mechanic, Fitter, Welder, Fabricators
Allied Skills	Electrician, Wireman
Skills with acute shortage	Specialized welders in Arc welding who can work in extreme conditions on advanced fabrication equipments

- Transportation and Logistics

Category of Skills	Skills
Core Skills	Heavy vehicle drivers, logistics management
Allied Skills	Administrative, computer data management
Skills with acute shortage	Scheduling and logistics planning

³¹⁸ KPMG Analysis

- Banking and Financial

Category of Skills	Skills
Core Skills	Knowledge on core banking/mobile/internet platforms
Allied Skills	Sales and Marketing
Skills with acute shortage	Insurance underwriting, claims management

- Organized Retail

Category of Skills	Skills
Core Skills	Shop floor executives/supervisors, computer operator
Allied Skills	Transportation & logistics staff
Skills with acute shortage	Store management, stock planning

- Education

Category of Skills	Skills
Core Skills	School teachers, higher education faculty
Allied Skills	Knowledge on advanced teaching tools
Skills with acute shortage	Technical education trainers

18.14.5. Human Resource Development in the District

18.14.5.1. Current State of Workforce Development

Overall, the penetration of higher education in Palwal is considerably lower than the state average.

Comparison of higher education infrastructure in Palwal with Haryana

Category of College	Haryana	Palwal
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Arts, Science and Commerce	192	3
Engineering/Technology/Architecture	168	8
Medical (Allopathy/Dentistry/Homeopathy)	27	-
Education/Teacher training	472	3
Law	11	-
Others	17	-
Total	887	14
Density(Colleges per Thousand Population)	0.04	0.01

Source: Haryana Statistical Abstract 2011-12

The contribution of the district is very low when compared to the state average in the vocational training infrastructure. Palwal has a total of only 4 Industrial Training Institutes.

Details of vocational education infrastructure in Palwal

District Wise ITI/ITC Infrastructure (2011)							
Region	Number			Sanctioned Intake			Density(Seats per Thousand Population)
	Govt ITI	Private ITI	Total	Govt ITI	Private ITI	Total	
Haryana	131	94	225	39140	12804	51944	2.05
Palwal	2	2	4	60	320	380	0.36

Source: Department of Industrial training and Vocational Education, Haryana

ITI Palwal offers 14 courses including carpentry, COPA, cutting and sewing, draughtsman civil, electrician, electronics mechanic, fitter, machinist, mechanic tractor, plumber, stenography English, tool and die maker, turner and welder. It also offers a CoE on fabrication. The other ITIs offer a subset of these courses.

18.14.5.2. Youth Interaction outcomes

There was moderate awareness about career opportunities available to the students in the district of Bhiwani. The youth in the district exhibited a high preference towards employment over entrepreneurship. Several factors such as poor financial capacity, work environment and socio-cultural factors influenced youth preferences towards employment.

Unlike, other districts there were lower inclination towards government jobs over private jobs owing to low salary. The students were open to migrating to nearby districts like Gurgaon, Manesar and Faridabad for relevant jobs. However, low level entry salaries remained a key challenge for mobility. The minimum salary expectation for mobility was highlighted as INR 8,000-10,000 per month.

There are local job fairs held in the district, however only local companies are seen to participate in the same. Therefore, these remain of limited interest to the majority of the students.

Source: Primary Discussion with local youth, ITI student and village sarpanchs

18.14.5.3. Other Skill Mapping and Developmental Concerns

Palwal district lags behind the rest of Haryana on most yardsticks of development. Palwal sugar mill is the only PSU located within the district. However, with Palwal – Manesar highway is expected to further boost industrialization within the district going forward.

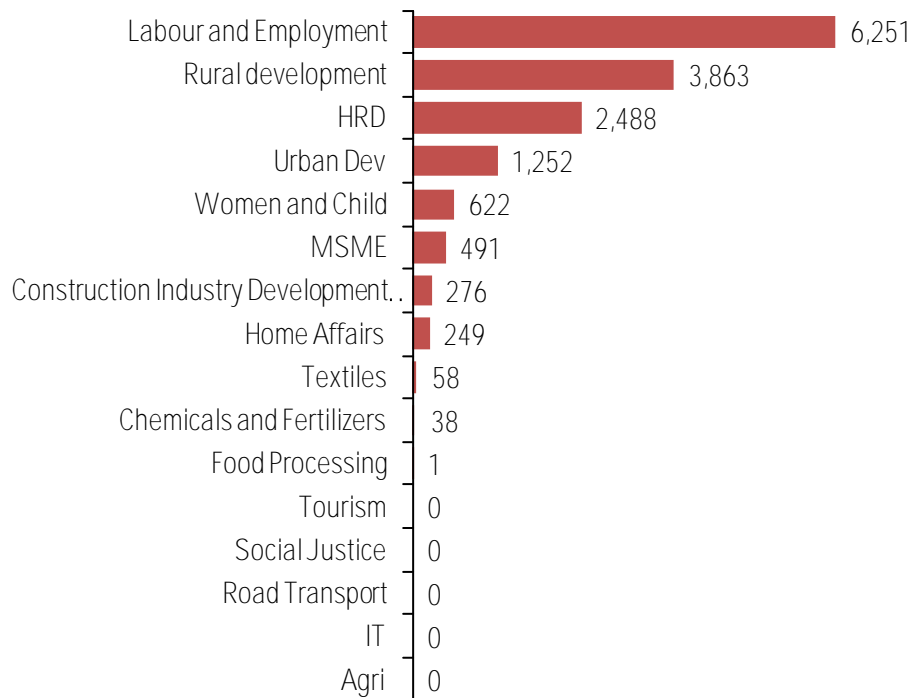
Further, the attitude of people towards semi and minimally skilled work is poor due to high opportunity costs - the daily wage rate under NREGA in Palwal district is one of the highest amongst the state.

Source: Primary Discussion with industry representatives, ITI Principal and Teachers

18.14.5.4. Incremental Training Capacity in the District through Government Endowments

According to KPMG estimates, based on the potential district budgetary allocation for various central government schemes around 16 thousand people in total can be trained incrementally during the five year period of 2012-17. Ministry of Labour and Employment has significant training mandates in the district.

Potential Training Capacity in Palwal during 2012-17



Source: KPMG Analysis, Training Plans as per various Ministries/ Departments / Organizations

District Specific Recommendations

Stakeholder	Action Points
NSDC	<p>Creating a favorable and positive skill environment in the district</p> <p>A majority of youth in the district continue to perceive 'skill acquisition' poorly and consider enrolling in an ITI/ITC in the region as a last resort.</p> <p>Awareness campaigns about benefit of acquiring vocational education at the village level in collaboration with NGOs and Community based organizations. Identify high-performing and motivated students and provide scholarships for higher education.</p>
Skill Development Training Providers	<p>Focus on soft skill training to students</p> <p>Attitude and professional conducts remains a major challenge amongst local youth.</p> <p>Targeted training modules for soft skills to be developed and imparted to students. Facilitate camps to address behavioural and professional issue amongst students</p> <p>Women focused schemes and programs</p> <p>The female literacy rates in the district is low compared to males, necessitating the need for gender specific policies</p> <p>Focus on rural and backward blocks of the district where the female education is even lower</p> <p>Provide training for small scale industries such as textile, food processing etc through this mode</p>

Industry	Support teacher training initiatives
	Industry should conduct teacher training programs from faculty from local institutes with an aim to improve quality of training delivery and relevance of pedagogy to industry
District Administration	Facilitate women participation in skill development
	Facilitate formation of SHG's which will involve more women with an aim to empower the women
	Focus on training in agricultural products and processing
	There is a high dependence on primary sector in the district. However, most of the farmers are still engaged in traditional crops and have low awareness about new crops (Fruits and vegetables) or opportunities farm mechanization
	Facilitate trainings to apprise farmers about new agro and food processing opportunities, benefits of farm mechanization etc

18.15 Skill Gap Assessment of Panchkula District

18.15.1. Administrative Profile

Panchkula is the northernmost district of Haryana. It is bordered by Punjab and Himachal Pradesh to the east and west respectively and Ambala to the south. The district covers an area of 816 sq. km., which accounts for 1.84 percent of the total share of land area³¹⁹. Panchkula is known for its religious and historical importance.

Administratively, the district consists of 2 sub-divisions (Panchkula and Kalka), 2 tehsils (Panchkula and Kalka) and 3 sub-tehsils (Barwala, Morni Hills and Raipur Rani)³²⁰.

18.15.2. Social Profile

18.15.2.1. Demographics

According to 2011 census data, the district has a population of 5.61 lakhs³²¹, contributing to 2.21 percent of the total state population. The district population has grown at a decadal growth rate of 19.83 percent in the period of 2001-11. The district has a high share of rural population, with 44.91 percent³²² of the population being rural.

The population density of the district stands at 622 persons per sq. km³²³ is higher than the state average of 573 persons per sq.km. While the adult gender ratio has increased from 823 females per 1000 males in 2001 to 870 females per 1000

³¹⁹Haryana State Statistical Abstract 2011-12

³²⁰<http://panchkula.nic.in/>

³²¹http://censusindia.gov.in/2011-prov-results/prov_data_products_haryana.html

³²²http://censusindia.gov.in/2011-prov-results/prov_data_products_haryana.html

males in 2011³²⁴, there has also been an increase in the child (0-6 age group) gender ratio from 829 females per 1000 males in 2001³²⁵, to 850 females per 1000 males in 2011³²⁶.

The scheduled caste population in the district accounts to 15.51 percent³²⁷ of total population, which is comparable with the state average of 19.35 percent. There are no Scheduled Tribes in Haryana.

18.15.2.2. Literacy

The district literacy rate is 81.88 percent, which is higher than the state average of 75.55 percent³²⁸. The gender disparity in education attainment levels is significant with a female literacy rate of 75.99 percent when compared to the male literacy rate of 87.04 percent.

Some notable educational institutions are Government College, Government College for girls, Swami Devi Dyal group of Institutes, Panchkula Engineering College etc.

The school infrastructure is at par with the state average for the primary level and secondary level but higher in the middle level of education, as shown by the graph below.

Number of schools per thousand school going children

Region	Primary Level	Middle Level	Secondary Level
Panchkula	10	13	3
Haryana	7	8	3

The number of schools and figures of enrolment for the district are presented below.

Number of recognized schools and student enrolments

Region	Primary Level	Middle Level	Secondary Level
Number of schools	346	95	114
Number of scholars	20,227	21,350	75,042

Source: Haryana Statistical Abstract 2011-12

³²³ http://censusindia.gov.in/2011-prov-results/prov_data_products_haryana.html

³²⁴ http://censusindia.gov.in/2011-prov-results/prov_data_products_haryana.html

³²⁵ http://censusindia.gov.in/2011-prov-results/prov_data_products_haryana.html

³²⁶ http://censusindia.gov.in/2011-prov-results/prov_data_products_haryana.html

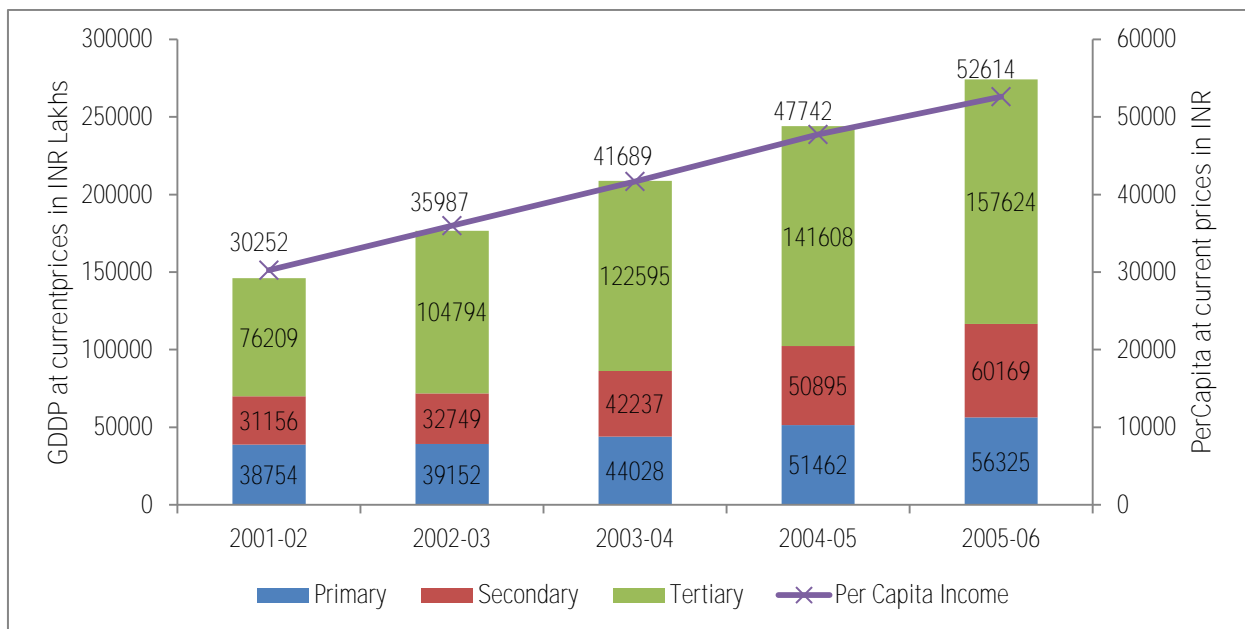
³²⁷ http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

³²⁸ http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

18.15.3. District Economy

The district economy has witnessed a higher cumulative growth of 13.41 percent³²⁹ during 2001-02 and 2005-06 in comparison to the state growth of 10.7 percent³³⁰ in the same period. Secondary and Tertiary sectors play a pivotal role in the district economy. Together, they constitute to 79.5 percent³³¹ of the total GDDP of the district, indicating the importance of services and industries in Panchkula. Per Capita Income of Panchkula has registered a cumulative growth of 11.7 percent³³² during 2002-06.

Sub-Sector wise GDDP trends in the district



Source: Planning Commission Statistics

18.15.3.1. Agriculture and allied sectors

Panchkula is a prosperous district from the point of view of agricultural production. The total cultivable area of the district is 34,000 hectares³³³ which is 59.6 percent³³⁴ of total Area. It is the primary source of employment to 22.97 percent of the working population, as per the 2001 census. In the year 2004-05, agriculture contributed a 13.47 percent of the district GDP compared to 24.39 percent³³⁵ for the state. There are many large land holdings indicating extensive mechanization in farming practices. A majority of landholdings measure above 1 hectare.

Composition of the land holding in the district benchmarked against the same for the overall state

Region	Below 1	1-3 Hectares	3-5 Hectares	5-10 Hectares	Larger than 10
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³²⁹ <http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

³³⁰ <http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

³³¹ <http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

³³² <http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

³³³ Basic Industrial Profile of Panchkula district, MSME Institute, Karnal

³³⁴ Basic Industrial Profile of Panchkula district, MSME Institute, Karnal

³³⁵ <http://www.crida.in/>

	Hectares				Hectares
Panchkula	9470	29251	19511	22106	18055
Haryana	7,78,142	4,89,777	1,79,665	1,23,898	45,829

Source: Haryana Statistical Abstract 2011-12

The main crops grown in the district are wheat, paddy, bajra, pulses, oil seeds, onion, potatoes and other vegetables and fruits. The major kharif crops are sugarcane, paddy and maize. The major Rabi crops are wheat, barley, gram and oilseed etc.

The percentage of net area irrigated to net area sown is 100 percent, as against the state average of 84.1 percent³³⁶. The irrigation intensity of the district is also very high at 179.5 percent as against the state average of 184.6 percent.

Dairy farming has been taken up as subsidiary occupation in the district. Total animal population of the district as per the special livestock survey, 1997 was 3,69,700³³⁷. There are 2,45,600 poultry birds³³⁸ in the district .

The district has good potential for the development of pisci-culture. Fish production during the year 2010-2011 in the district was 5016 tones. Total area under fish cultivation in the district was 966 hectares³³⁹.

18.15.3.2. Industry

Panchkula has a mixed type of economy i.e. co-existence of agricultural industries and allied sectors. Out of the total population, about 34 percent³⁴⁰ has been enumerated as main workers against state average of 29.52 percent³⁴¹. According to 2011-12 statistics, there are 10 large and medium scale, 1965 micro and small scale and 12 exporting units in the district³⁴². According to 2011 estimate, there are 1862 registered MSME units³⁴³ in the district which provide employment to 7425 people³⁴⁴.

Engineering units, metal based (steel fab.), agro based industries, wooden industries, repairing and servicing industries are the major areas which contribute to the MSMEs.

Growth trends in MSME segment in the district

³³⁶ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

³³⁷ Basic Industrial Profile of Panchkula district, MSME Institute, Karnal

³³⁸ Basic Industrial Profile of Panchkula district, MSME Institute, Karnal

³³⁹ Basic Industrial Profile of Panchkula district, MSME Institute, Karnal

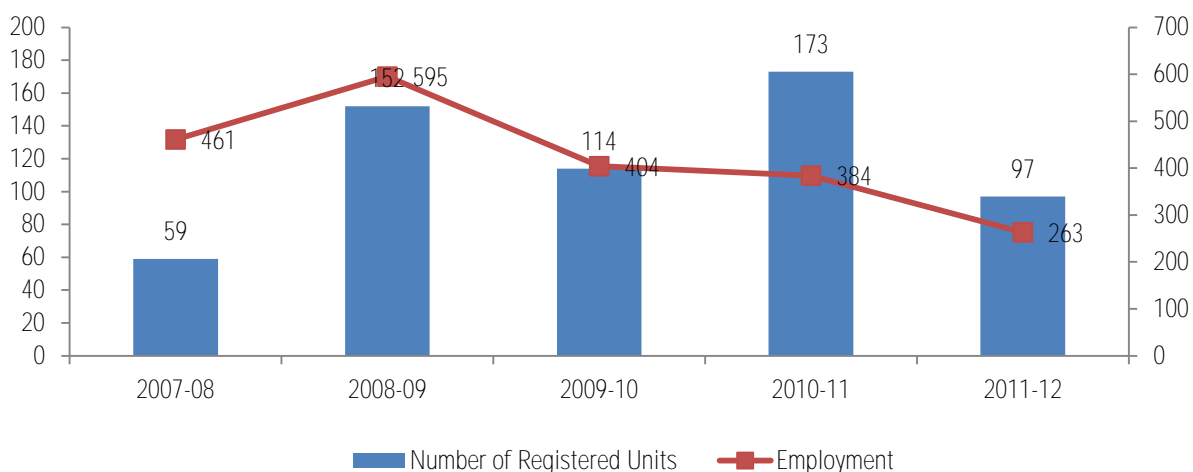
³⁴⁰ Basic Industrial Profile of Panchkula district, MSME Institute, Karnal

³⁴¹ Basic Industrial Profile of Panchkula district, MSME Institute, Karnal

³⁴² Basic Industrial Profile of Panchkula district, MSME Institute, Karnal

³⁴³ Basic Industrial Profile of Panchkula district, MSME Institute, Karnal

³⁴⁴ Basic Industrial Profile of Panchkula district, MSME Institute, Karnal



Source: Industrial Profile of Panchkula District, MSME Institute

The large scale industries are growing approximately at the rate of 12 percent annually³⁴⁵. Some of the large scale units are: Syschem India Limited, Bharat electronics Limited, Drish Shoes Limited, Hindustan Machine Tools Limited, (Machine Tools), Hindustan Machine Tools Limited, (Tractor Division) etc.

The major exportable items of this district are: Auto Parts, PCB, Medicines injectable, Connectors, Decorative & Industrial Laminates, Machine Tools, Engineering goods, Leather Shoes, Chemicals and Tractors.

Based on discussions with District Industries Center, following potential MSME growth clusters are identified in Panchkula district.

Existing Clusters	Clusters Identified for Promotion
Handloom/Textiles	-
Auto Parts	

Source: Primary Discussion with District Industrial Officer, Industrial Profile of Panchkula District, MSME Institute

18.15.3.3. Services Sector

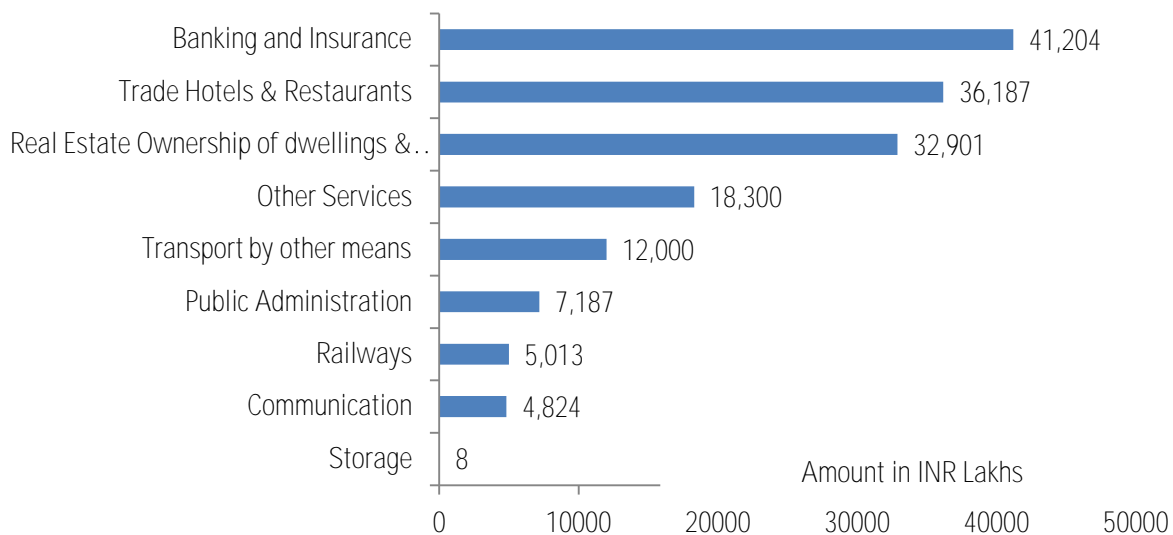
The share of service sector is very high 72.65 percent³⁴⁶ of GDP in the year 2005-06. Sector has grown at a cumulative rate of 15.50 percent³⁴⁷ in the period between 2000-01 and 2005-06. Trade and hospitality and banking and insurance are key services activities in Panchluka.

Service sector contributed to Sub-sector wise contribution of services income

³⁴⁵ Basic Industrial Profile of Panchkula district, MSME Institute, Karnal

³⁴⁶ <http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

³⁴⁷ <http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>



Source: Planning Commission

Trade and hospitality industry of Panchkula grew at a cumulative rate of 13.85 percent³⁴⁸ in the period between 2000-01 and 2005-06.

Panchkula has good number of healthcare facilities to serve its population. Some of the noted facilities are: Government General Hospital, Saket Hospital, Alchemist Hospital, Phoenix Hospital & Diagnostic Centre, and Dhawan Hospital. There are also philanthropic trusts like Panchkula Welfare trust for quality and timely medical diagnostics at one third the market rate.

Details of healthcare infrastructure in the district

Category	Number of Institutions
Allopathic Hospitals	2
Ayurvedic Institutions	15
Unani/Homeopathic Institutions	-
Primary Health Centers (PHCs)	9
Community Health Centers (CHCs)	1
Dispensaries	13

³⁴⁸ <http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

Total	40
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Source: Haryana Statistical Abstract 2011-12

The penetration of healthcare facilities measured in terms of beds per 1,00,000 population is 31 which is lower than the state average of 39. There is a need to increase penetration and access of healthcare services in the district.

Panchkula has high penetration of banking and financial services measured as a percentage of GDDP at 15.03 percent³⁴⁹, as per 2005-06 estimates. The number of scheduled commercial bank offices of the district has grown by 12.5 percent³⁵⁰ CAGR between 2011 and 2012. Bank Credit Deposit ratio has witnessed a growth from 73.77 percent³⁵¹ to 129.33 percent³⁵² from Mar 2011 to Mar 2012, indicating the increase in borrowings, mainly, for infrastructure and industrial development in the district.

18.15.4. Workforce Distribution in the district

18.15.4.1. Current Employment Scenario in Panchkula

The main worker participation rate for the district, at 32.10 percent, is higher than the state average of 28.66 percent. Worker participation rates are higher in rural rather than urban areas, unlike the general trend for the rest of the state.

Region	Main Worker Participation	Marginal Worker Participation	Overall Non-Workers	Rural Non-Workers	Urban Non-Workers
Panchkula	32.10 %	6.04%	61.87%	32.32%	29.55%
Haryana	28.66 %	10.10 %	50.36 %	33.83 %	16.52 %

Female work participation in the district is low in comparison to male work participation with only 21.46 percent of the working population being females.

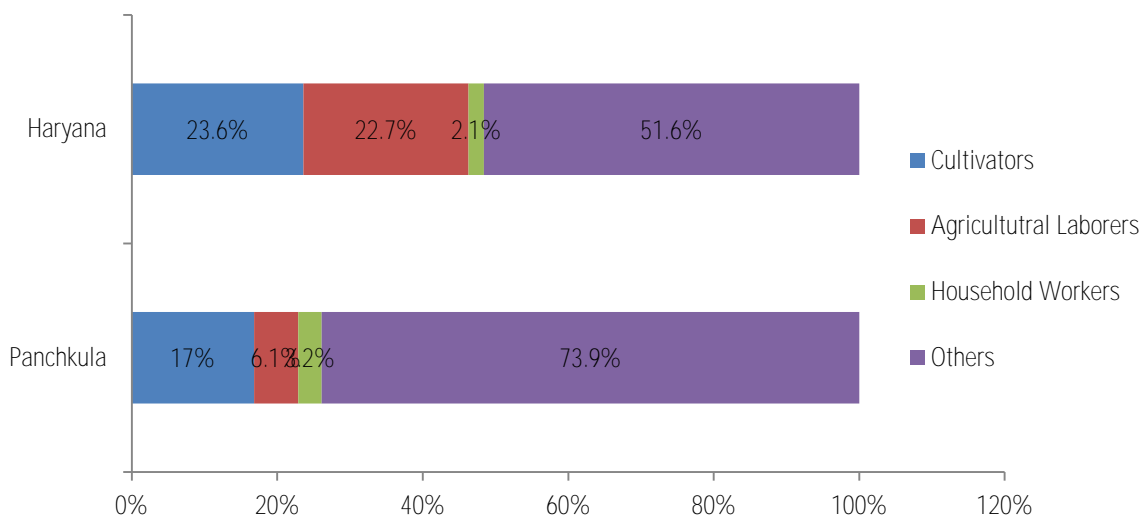
Distribution of Working Population in the district

³⁴⁹ <http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphbody.htm>

³⁵⁰ Statistical Abstract Haryana- 2011-12

³⁵¹ Statistical Abstract Haryana- 2011-12

³⁵² Statistical Abstract Haryana- 2011-12



Cultivators and agricultural laborers make up a comparatively low proportion of the workforce, unlike the general trend for the state. Industries, many agro-based, are the major source of employment for the district.

18.1.4.29. Estimation of Supply of Manpower in the District

District wise incremental supply estimates were arrived at, based on Planning Commission Population Estimates from 2001 population considering birth rate, death rate and life expectancy normalized against population corrections in 2011.

State/ District	Labour Force Supply (2012-17)			Labour Force Supply (2017-22)		
	Gross Addition to Working Age Population	Gross Addition to Labour Force	Net Addition to Labour Force-Supply	Gross Addition to Working Age Population	Gross Addition to Labour Force	Net Addition to Labour Force-Supply
Haryana	2,648,032	1,273,703	727,206	2,421,060	1,164,530	496,173
Panchkula	58,629	26,836	15,322	53,603	24,536	10,454

Source: KPMG Analysis

18.1.4.30. Incremental Supply of Labour force in the District

District wise incremental supply estimates were arrived at based on Planning Commission Population Estimates from 2001 population considering birth rate, death rate and life expectancy normalized against population corrections in 2011.

Region	Supply 2012-17			Supply 2017-22		
	Skilled	Semi - Skilled	Minimally Skilled	Skilled	Semi-Skilled	Minimally skilled
Panchkula	2,945	2,219	10,158	2,009	1,514	6,931
Haryana	195,716	75,683	455,808	133,537	51,638	310,998

Source: KPMG Analysis

18.7.1.1 Incremental Manpower Requirement in the District

Incremental manpower requirement in the district of district has been estimated based on several parameters such as investments into various sectors in the district for the past 10 years, national level benchmarks on industrial growth across sectors, national inclusion targets for sectors such as banking and healthcare, employment generation potential of various sectors based on labour elasticity and market based insights from discussions with industries in district.

Sector wise skill level requirements during 2012-22

Sub Sectors	Panchkula					
	2012-17			2017-22		
	Skilled	Semi-skilled	Unskilled	Skilled	Semi-skilled	Unskilled
Agriculture & Allied Activities	-	-	(614)	-	-	(603)
Auto and Auto Components	45	180	225	49	196	245
Banking and Financial Services	9,456	28,367	-	9,681	29,043	-
Communication	296	887	-	301	902	-
Construction	875	1,750	14,872	779	1,558	13,241
Education and Training	79	533	-	44	295	-
Fabricated metal products						

	74	296	370	72	287	359
Food Processing	18	70	102	19	73	106
Healthcare	279	1,115	-	378	1,511	-
Hospitality	67	101	504	60	91	453
IT&ITES	1,488	3,472	-	1,613	3,765	-
Manufacturing of Engineering Products	40	160	201	46	185	231
Pharma & Medicinal Products	51	202	253	66	264	330
Retail	2,067	2,067	16,533	1,851	1,851	14,810
Transportations and Logistics	192	3,051	3,630	262	4,157	4,946
Total	15,090	42,507	36,396	15,298	44,485	34,502

Please note that only the industries with significant manpower demand have been individually highlighted in the table.
Source: KPMG Analysis

Skill requirements in key growth sectors have been analyzed based on industry interactions to understand the detailed manpower needs. Sector level skill interventions are indicated in the section below³⁵³.

- Engineering Products/ Fabricated Metal

Category of Skills	Skills
Core Skills	Motor Mechanic, Diesel Mechanic, Fitter, Welder, Fabricators
Allied Skills	Electrician, Wireman

³⁵³ KPMG Analysis

Skills with acute shortage	Specialized welders in Arc welding who can work in extreme conditions on advanced fabrication equipments, Sheet Metal Work, Machining & Casting.
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- Textiles

Category of Skills	Skills
Core Skills	Braiding Machine Operators, CAD Cam Operators, Ring frame operator, Weaver, Plotters, Processing operator (CDR,BDR,Stuntor), Bar-coding machine operator,
Allied Skills	Machinist, Electrician, Wireman, Fitter
Skills with acute shortage	Braiding Machine Operators, CAD CAM Operators, Due to high attrition in operator roles (semi skilled) owing to extreme working conditions industry has high attrition in these roles.

- Transportation and Logistics

Category of Skills	Skills
Core Skills	Heavy vehicle drivers, logistics management
Allied Skills	Administrative, computer data management
Skills with acute shortage	Scheduling and logistics planning

- Banking and Financial

Category of Skills	Skills
Core Skills	Knowledge on core banking/mobile/internet platforms
Allied Skills	Sales and Marketing
Skills with acute shortage	Insurance underwriting, claims management

18.15.5.1. Current State of Workforce Development

Panchkula is home to a number of institutes of higher education; however there is a low penetration of colleges. There are several institutions that impart technical and management education.

Comparison of higher education infrastructure in Panchkula with Haryana

Category of College	Haryana	Panchkula
Arts, Science and Commerce	192	4
Engineering/Technology/Architecture	168	3
Medical (Allopathy/Dentistry/Homeopathy)	27	1
Education/Teacher training	472	4
Law	11	1
Others	17	-
Total	887	13
Density(Colleges per Thousand Population)	0.04	0.02

Source: Haryana Comprehensive Statistics 2011-12

The vocational education scene in the district is better than the average of the state. This is demonstrated by the higher penetration of vocational education in the district than in the state.

Details of vocational education infrastructure in Panipat

District Wise ITI/ITC Infrastructure (2011)							
Region	Number			Sanctioned Intake			Density(Seats per Thousand Population)
	Govt ITI	Private ITI	Total	Govt ITI	Private ITI	Total	
Haryana	131	94	225	39140	12804	51944	2.05
Panipat	4	4	8	1192	424	1616	2.88

Source: ITI Haryana Government Website

The ITI Kalka offers a wide spectrum of 20 courses including Architectural Assistant, Architectural Assistant (for SC only), COPA, Draughtsmen Civil, Electrician, Fitter, Machinist, Mechanic Consumer Electronics, Mechanic R&AC, Mechanic Repair and Maintenance of HMV, Painter General, Plumber, Stenography English, Stenography Hindi, Turner, Welder, Wireman, Carpenter, Draughtsmen Mechanical and Mechanical Computer Hardware.

18.15.5.2. Youth Interaction Outcomes

The youth in Panchkula exhibited higher preference towards employment over entrepreneurship. Several factors such as poor financial capacity, work environment and socio-cultural factors seemed to influence youth preferences towards employment.

Further, the youth exhibited low preference to migrate on account of work due to higher cost of living in other districts like Gurgaon. There was a strong proclivity to stay in the district by finding local work.

Source: Primary Discussion with local youth, ITI student and village sarpanchs

18.15.5.3. Other Skill Mapping and Developmental Concerns

Panchkula is a reasonably industrialized district with a high presence of both large and medium scale industries. While this translates into significant employment opportunities, there is a shortage of skilled manpower in the district. Even the students **graduating out of ITI's in the district are perceived to have poor technical and machine handling skills.**

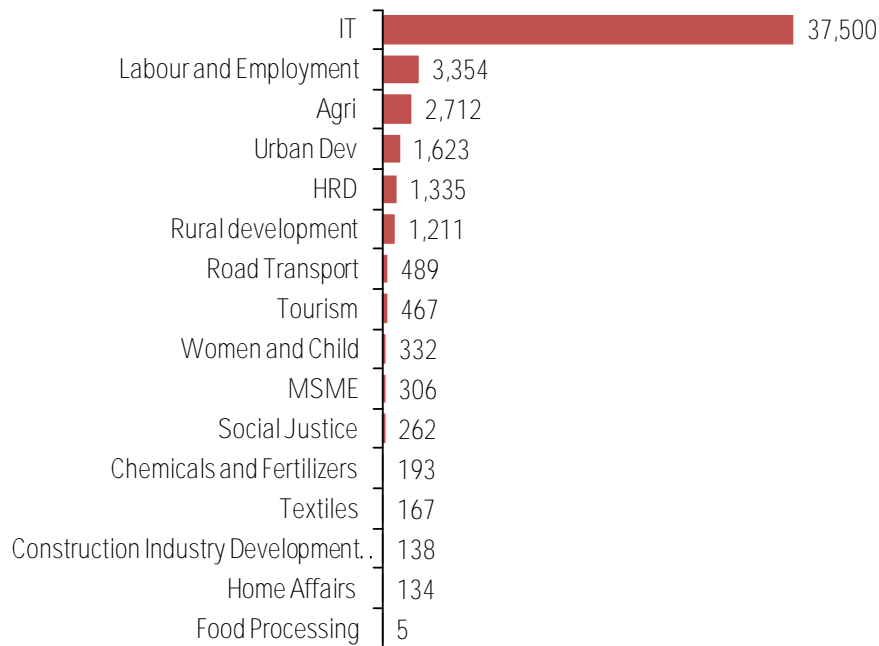
These students need to be provided training on the job similar to minimally skilled manpower. Further, for large scale industries of Shoe manufacturing and Pharmaceutical, there are no sector trades available locally in the district.

Source: Primary Discussion with industry representatives and ITI student

18.15.5.4. Incremental Training Capacity in the District through Government Endowments

According to KPMG estimates, based on the potential district budgetary allocation for various central government schemes, around 50 thousand people in total can be trained incrementally during the five year period of 2012-17. Ministry of Agriculture has significant training mandates in the district.

Potential Training Capacity in the district through Government Endowments (2012-17)



Source: KPMG Analysis, Training Plans as per various Ministries/ Departments / Organizations

18.15.6. District Specific Recommendations

Stakeholder	Action Points
NSDC	<p>Creating a favorable and positive skill environment in the district</p> <p>A majority of youth in the district continue to perceive 'skill acquisition' poorly and consider enrolling in an ITI/ITC in the region as a last resort. Awareness campaigns about benefit of acquiring vocational education at the village level in collaboration with NGOs and Community based organizations. Identify high-performing and motivated students and provide scholarships for higher education.</p>
Skill Development Training Providers	<p>Focus on soft skill training to students</p> <p>Attitude and professional conducts remains a major challenge amongst local youth. Targeted training modules for soft skills to be developed and imparted to students. Facilitate camps to address behavioural and professional issue amongst students</p> <p>Introduction of self employment focused courses in low industrialized areas</p> <p>The level industrialization varies across Tehsils in Panchkula. Further, there is a limited interest in</p>

	<p>migration by local youth necessitating the need for self employment opportunities in the district.</p> <p>For the areas having low industrial presence, the focus of skill training institutes should be on self employment focused courses like repair, mechanic, painter etc</p>
Industry	<p>Information of industry labour needs</p> <p>Lack of adequate industry skill requirements creates issue in imparting relevant training.</p> <p>Industry associations / key players in the district should co-ordinate with employment exchange to publish employment requirements reports indicating clear skill requirements for the various job opportunities</p> <p>Periodical interaction with local skill development training providers to communicate any updates in skill requirements</p> <p>Support teacher training initiatives</p> <p>Industry should conduct teacher training programs from faculty from local institutes with an aim to improve quality of training delivery and relevance of pedagogy to industry</p>
District Administration	<p>Promote Skill Development in the District</p> <p>State and local government should promote vocational education as acceptable alternative to formal education</p> <p>Campaigns and career counselling to promote dignity of labour and employability through skill training</p> <p>Career counselling, with information on skill development should be provided at school level itself.</p>

18.16 Skill Gap Assessment of Panipat District

18.16.1. Administrative Profile

Panipat, also popularly known as 'City of Weaver' is bordered by Karnal, Sonipat, Jind, Kaithal as well as State of Uttar Pradesh. It is relatively small district with area of 1,268 sq km, accounting for 2.9 percent of the total share of state area³⁵⁴.

Administratively, the district has been divided into two sub divisions (Panipat and Samlakha) which are further sub-divided into three tehsils (Panipat, Samlakha and Israna) and five blocks (Panipat, Israna, Madlauda, Samlakha and Bapauli).

18.16.2. Social Profile

18.16.2.1. Demographics

As per Census 2011, Panipat has a population of 12.05 lakhs, contributing to 4.75 percent of state's population. The district has grown at a high decadal growth rate of 24.60 percent. The district also has a high share of rural population, i.e. 53.99 percent³⁵⁵ share of total population.

The population density of the district standing at 951 persons per sq.km is well above the state average of 573 persons per sq.km³⁵⁶. The child gender ratio has shown a positive trend (increased from 809 females per 1000 males in 2001 to 833 females per 1000 males in 2011). There has been an increase in the adult gender ratio also from 829 females per 1000 males in 2001, to 861 females per 1000 males³⁵⁷ in 2011. This is slightly lower than the state average of 877 females per 1000 males.

The reserved categories population in the district is significant, occupying a share of 15.79 percent of total population which is lower than the state average of 19.35 percent³⁵⁸.

18.16.2.2. Literacy

The district literacy rate of 77.46 percent (up from 69.14 percent in 2001), is roughly the same as the state average of 76.64 percent³⁵⁹. The gender disparity in education attainment levels is prominent with a low female literacy rate of 68.23 percent. The school infrastructure at the primary level is a key concern since it is not at par with the state average shown **by the below benchmarking of Panipat's School infrastructure with that of the state in terms of schools per thousand school going children.** The district however has shown a better indicator at the middle and secondary level.

Region	Primary Level	Middle Level	Secondary Level
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³⁵⁴Haryana State Statistical Abstract 2011-12

³⁵⁵http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

³⁵⁶http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

³⁵⁷http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

³⁵⁸http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

³⁵⁹http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

Panipat	4	9	3
Haryana	7	8	3

Number of recognized schools and student enrolments

Region	Primary Level	Middle Level	Secondary Level
Number of schools	461	61	110
Number of scholars	37,126	22,482	39,494

Source: Haryana Statistical Abstract 2011-12

18.16.3. District Economy

The contribution of Panipat to overall state economy is much higher than the average share on population pro-rata basis - as evident from much higher Per Capita Income of INR 59,187³⁶⁰ in comparison to state average of INR 32,712 in 2004-05 (At current prices).

Agriculture is an important Sub-Sector at Panipat but unlike many other districts of Haryana it is not the major contributor to its GDDP. Infact, Panipat is very well placed in terms of Industry, the district manufactures Textile and Cotton on a large scale and has a thriving agriculture instruments industry. Panipat also has a presence of heavy industries; the Indian Oil Corporation Limited has a Refinery at Panipat, there is Panipat Thermal Power Corporation and a National Fertilizers Limited Plant. Sub-Sector wise GDDP trends in Panipat are presented in the chart. It is evident that the contribution of service sector to the GDDP is the highest among all sub-sectors.

Sub sector wise GDDP trends

³⁶⁰ <http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphbody.htm>



Source: Planning Commission, State Wise District Domestic Product (Data)

18.16.3.1. Agriculture and Allied sectors

Agriculture does not enjoy the same status in Panipat as compared to other regions in Haryana, due to high share of industrialization. Although agriculture is not the largest contributor to the district economy it employs the maximum number of the working population. According to the 2001 census, 37.76 percent³⁶¹ of the working population is employed in this sector. In the year 2004-05, agriculture contributed to 10.59 percent of the district GDP compared to 24.39 percent³⁶² for the state.

Composition of the land holding in the district benchmarked against the same for the overall state

Region	Below 1 Hectares	1-3 Hectares	3-5 Hectares	5-10 Hectares	Larger than 10 Hectares
Panipat	42344	16981	5355	2655	737
Haryana	7,78,142	4,89,777	1,79,665	1,23,898	45,829

Panipat follows a Rice-Wheat pattern cropping system as a result of which pulses and oilseeds cultivation has been marginalized in the district. Sugarcane, vegetables and trees like Eucalyptus and Poplar are also being grown. Irrigation is chiefly accomplished by canals and tube wells almost all the sown area is irrigated. Some of the strengths of agriculture at Panipat as outlined by the Comprehensive District Agriculture Plan of the 11th five Year plan are:

- Excellent Marketing infrastructure under the umbrella of marketing board, regulated grain market within a distance of 10 km.
- Milk cooperatives active at village level. Developmental cum marketing efforts of Nestle are worth quoting.

³⁶¹ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

³⁶² <http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

- Very well organized institutional credit machinery in the form of cooperative and scheduled commercial banks.
- Mechanization of farming operations gaining importance
- Vigilant and enterprising farmers
- Fish cultivation is also done in the village areas of Panipat with ponds spread in a total area of 897 hectares. The fish production in the year 2006-07 was 2342 MT³⁶³. Buffalo is the main milch animal in Panipat followed by the cow.
- It is estimated that 136622 tonnes of Sulphur was mined in Panipat in the year 2010-11.

18.16.3.2. Industry

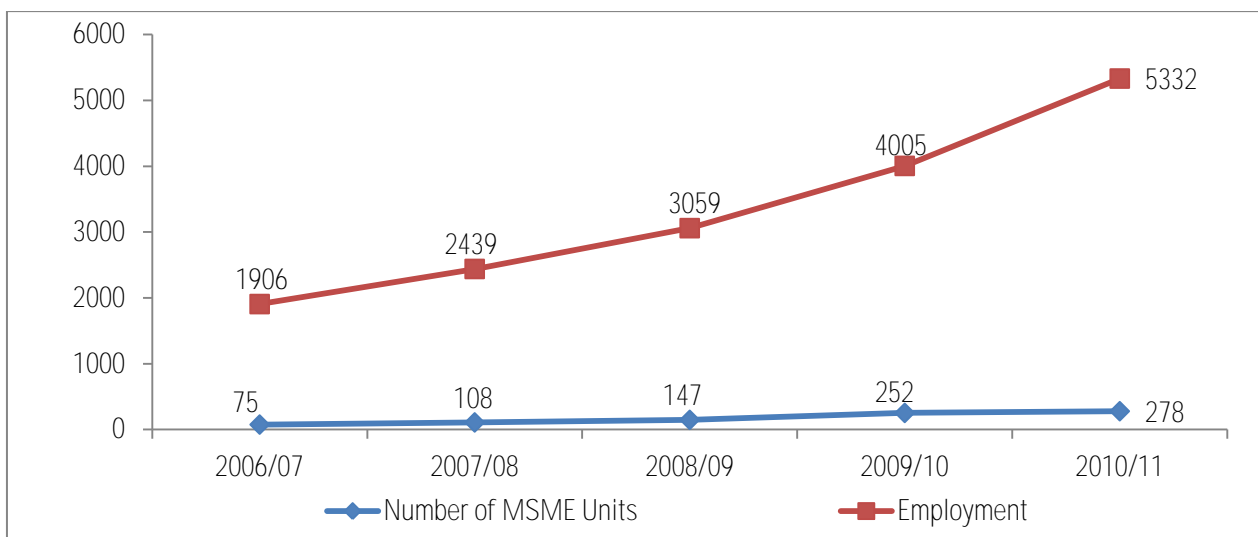
Agriculture is the largest employer in Panipat but the district is relatively better off in terms of industry than many other regions of Haryana.

Agricultural instruments are manufactured in the district. Among Small Scale Industries Agro based, leather based, wood based and engineering based industries enjoy the highest investment and employ the maximum number of people.

As per 2011 provisional data, there are 4,068 registered Industrial Units in the district employing around 80,667 workers on a daily basis in the small industries segment and 14,192 workers in the medium and large industries segment³⁶⁴.

Between 2006-07 and 2011-12, Medium-Small Scale Industries segment has witnessed good growth generating additional employment during the period.

MSME Growth Trends in the district



³⁶³ <http://www.crida.in/>

³⁶⁴ <http://dcmsme.gov.in/>

Based on discussions with District Industries Center, following potential MSME growth clusters are identified in Panipat district.

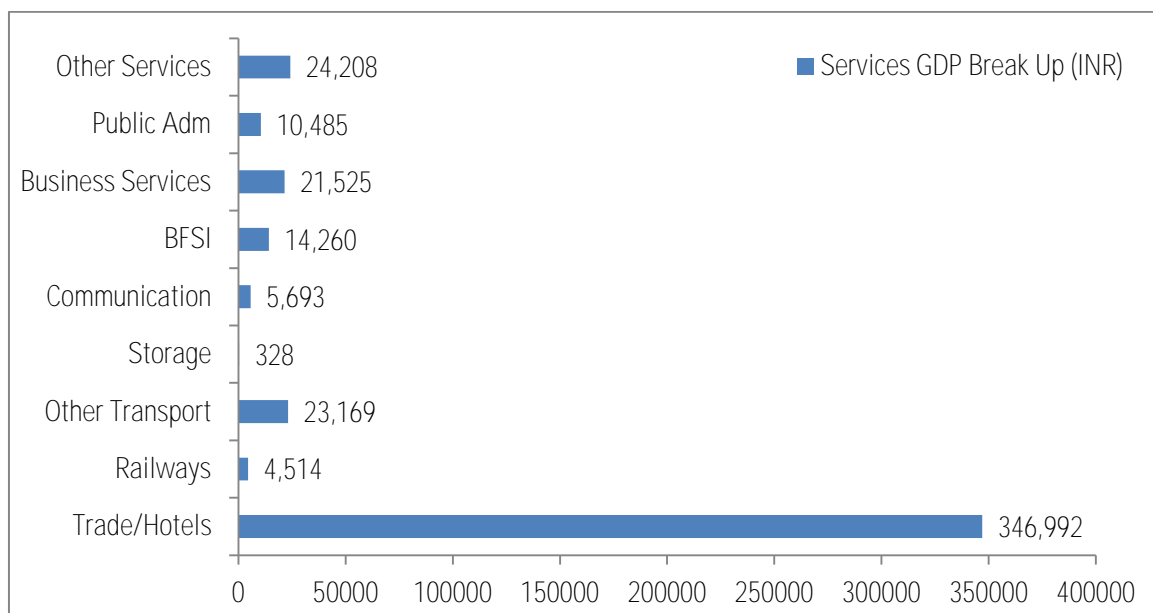
Existing Clusters	Clusters Identified for Promotion
<ul style="list-style-type: none"> • Home finishing(Floor coverings & Made Ups) Cluster • Textile Machinery Manufacturing Cluster • Foundry Cluster, Samalkha • Textile Designing 	

Source: Primary discussion District Industries Officer, Brief Industrial profile of Panipat District, MSME

18.16.3.3. Services Sector

The service sector contributed to 62.36 percent³⁶⁵ of GDDP in the year 2005-06. The sector has grown at a cumulative rate of 16.52 percent in the period between 2001-02 and 2005-06. Trade/Hotels are the key services activities in Panipat they enjoy a larger share in the GDDP than all other services combined.

Sub-sector wise contribution of services income (2005-06)



Source: Planning Commission, State Wise District Domestic Product Report

The penetration of healthcare facilities measured in terms of patients served per bed, at 1546 per bed is at par with the state average of 1522 per bed. District has 15 PHCs and 3 CHCs along with 90 Sub centers with limited private

³⁶⁵<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

participation³⁶⁶. Considering limited availability of healthcare facilities within the district, the district is expected to witness significant Government healthcare expenditure over the next decade.

Details of healthcare infrastructure in the district

Category	Number of Institutions
Allopathic Hospitals	2
Ayurvedic Institutions	15
Unani/Homoepathic Institutions	0
Primary Health Centers (PHCs)	15
Community Health Centers (CHCs)	3
Dispensaries	6
Total	41

Source: Haryana Statistical Abstract 2011-12

Panipat has low penetration of banking and financial services measured as a percentage of GDP at 2.25 percent in comparison to state average of 4.16 percent as per 2004-05 estimates. There are 38 commercial banks in Panipat.³⁶⁷ The credit-deposit ratio for Panipat is 131.18 percent as of 2012 which is higher than the state average of 102 percent.

18.16.4. Workforce Distribution in the district

18.16.4.1. Current Employment Scenario in Panipat

The main worker participation rate of 27.90 percent in the district is just below the state average number of 28.66 percent³⁶⁸, indicating overdependence on the primary sector. Agriculture is the major source of livelihood although the percentage (37.76 percent) of total work force it employs is considerably smaller than other districts of Haryana (average of 51.29 %)it still is the single largest employer. Female work participation in the district is low in comparison to male work participation, in line with the state level trend.

Break Up for the Working Population of Panipat District

³⁶⁶ <http://nrhm-mis.nic.in/UI/RHS/RHS%202011/District-wise%20Health%20Centres.pdf>

³⁶⁷ <http://dcmsme.gov.in/>

³⁶⁸ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

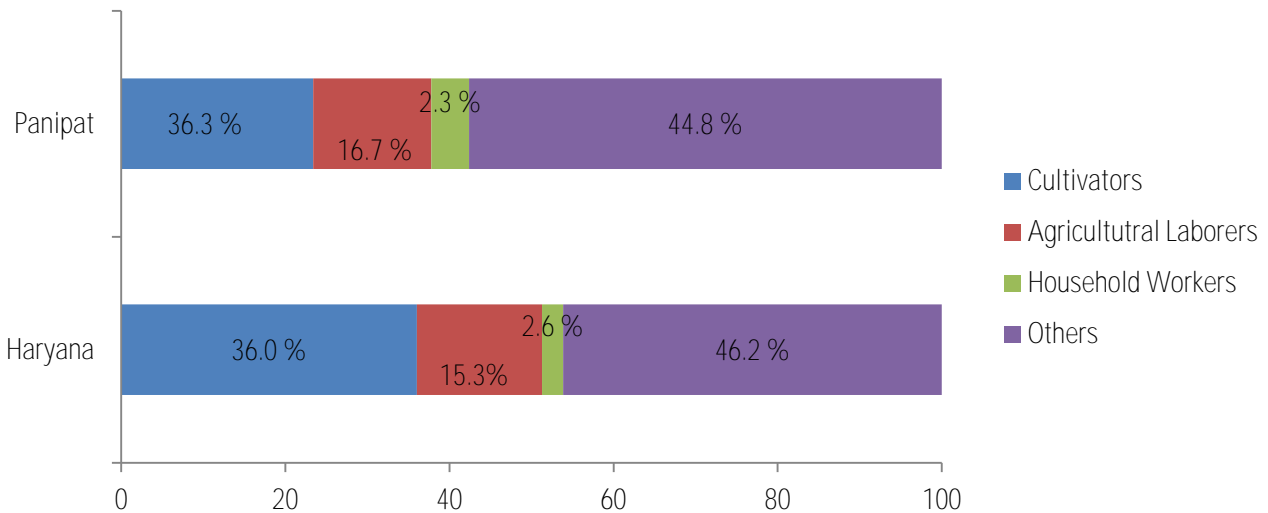
Region	Main Worker Participation	Marginal Worker Participation	Overall Non-Workers	Rural Non-Workers	Urban Non-Workers
Panipat	29.87 %	9.69 %	48.50%	58.09%	39.74%
Haryana	28.66 %	10.10 %	50.36 %	33.83 %	16.52 %

Source: Haryana Statistical Abstract 2011-12

The district's continuously expanding industrial base makes it a very attractive destination for large masses of skilled and minimally skilled workers. Workers from all over the country and especially from the cow belt find settle down in huge numbers in the district of Panipat.

Agriculture and allied sources being the major occupation reflects disguised unemployment in agriculture, especially considering the seasonal nature. Just above 50 percent of the total working population depends on agriculture, with a major share of cultivators this shows disguised unemployment of a major chunk of the population.

Distribution of Working Population in the district



A significant share of agricultural workforce is contributed by Agricultural laborers. Agricultural labors are largely constituted by migrant laborers from nearby states like Uttar Pradesh and Bihar. The migration of these laborers is seasonal in nature and is dependent on rice and sugarcane crop seasons.

18.1.4.31. Estimation of Supply of Manpower in the District

District wise incremental supply estimates were arrived at, based on Planning Commission Population Estimates from 2001 population considering birth rate, death rate and life expectancy normalized against population corrections in 2011.

State/ District	Labour Force Supply (2012-17)			Labour Force Supply (2017-22)		
	Gross Addition to Working Age Population	Gross Addition to Labour Force	Net Addition to Labour Force-Supply	Gross Addition to Working Age Population	Gross Addition to Labour Force	Net Addition to Labour Force-Supply
Haryana	2,648,032	1,273,703	727,206	2,421,060	1,164,530	496,173
Panipat	125,911	57,937	33,078	115,119	52,971	22,569

Source: KPMG Analysis

18.1.4.32. Incremental Supply of Labour force in the District

District wise incremental supply estimates were arrived at based on Planning Commission Population Estimates from 2001 population considering birth rate, death rate and life expectancy normalized against population corrections in 2011.

Region	Supply 2012-17			Supply 2017-22		
	Skilled	Semi - Skilled	Minimally Skilled	Skilled	Semi- Skilled	Minimally skilled
Panipat	8,608	1,556	22,915	5,873	1,061	15,635
Haryana	195,716	75,683	455,808	133,537	51,638	310,998

Source: KPMG Analysis

18.16.4.2. Incremental Manpower Requirement in the District

Incremental manpower requirement in the district of district has been estimated based on several parameters such as investments into various sectors in the district for the past 10 years, national level benchmarks on industrial growth across sectors, national inclusion targets for sectors such as banking and healthcare, employment generation potential of various sectors based on labour elasticity and market based insights from discussions with industries in district.

Sector wise skill level requirements during 2012-22

Sub Sectors	Panipat					
	2012-17			2017-22		

	Skilled	Semi-skilled	Unskilled	Skilled	Semi-skilled	Unskilled
Agriculture & Allied Activities	-	-	(1,512)	-	-	(1,486)
Banking and Financial Services	471	1,412	-	482	1,445	-
Chemical & Chemical Products	63	252	315	72	288	360
Communication	349	1,046	-	355	1,064	-
Construction	2,091	4,182	35,546	1,862	3,723	31,646
Construction Based Material	25	98	123	30	120	150
Education and Training	504	3,391	-	126	845	-
Food Processing	36	141	205	47	183	266
Healthcare	1,389	5,557	-	1,391	5,564	-
Hospitality	85	127	635	76	114	572
Manufacturing of Engineering Products	42	169	211	48	194	242
Retail	2,223	2,223	17,786	1,992	1,992	15,932
Textiles	995	3,979	4,974	1,274	5,093	6,367
Transportations and Logistics	349	5,543	6,594	432	6,863	8,165
Total	8,642	28,202	64,980	8,211	27,588	62,339

Please note that only the industries with significant manpower demand have been individually highlighted in the table.
Source: KPMG Analysis

Skill requirements in key growth sectors have been analyzed based on industry interactions to understand the detailed manpower needs. Sector level skill interventions are indicated in the section below³⁶⁹.

- Textiles

Category of Skills	Skills
Core Skills	Braiding Machine Operators, CAD Cam Operators, Ring frame operator, Weaver, Plotters, Processing operator (CDR,BDR,Stuntor), Bar-coding machine operator,

³⁶⁹ KPMG Analysis

Allied Skills	Machinist, Electrician, Wireman, Fitter
Skills with acute shortage	Braiding Machine Operators, CAD CAM Operators, Due to high attrition in operator roles (semi skilled) owing to extreme working conditions industry has high attrition in these roles.

- Food Processing

Category of Skills	Skills
Core Skills	Fitter, Electrician, Wireman, Instrumentation, Lab Technician
Allied Skills	Instrumentation, Packaging (Jar, Pouch) Operator, AOCP, Lab Attendant, Boiler Operator, QC Chemists, STP, ETP Operators
Skills with acute shortage	Extruder, Boiler Operators, PPO is required in industries having in house packing development

- Construction

Category of Skills	Skills
Core Skills	Electricians, carpenters, barbenders, welders and masons
Allied Skills	Minimally skilled workers
Skills with acute shortage	Machine Operators

- Transportation and Logistics

Category of Skills	Skills
Core Skills	Heavy vehicle drivers, logistics management
Allied Skills	Administrative, computer data management
Skills with acute shortage	Scheduling and logistics planning

18.16.5. Human Resource Development in the District

18.16.5.1. Current State of Workforce Development

Panipat is home to a number of institutes of higher education and has a high penetration of colleges. There are several institutions that impart technical and management education. Panipat also has seven polytechnics and five ITIs.

Comparison of higher education infrastructure in Panipat with Haryana

Category of College	Haryana	Panipat
Arts, Science and Commerce	192	10
Engineering/Technology/Architecture	168	9
Medical (Allopathy/Dentistry/Homeopathy)	27	-
Education/Teacher training	472	18
Law	11	1
Others	17	-
Total	887	38
Density(Colleges per Thousand Population)	0.04	0.03

Source: Haryana Comprehensive Statistics 2011-12

The vocational education scene in the district is not as good as the average of the state. This is demonstrated by the lower penetration of vocational education in the district than in the state.

Details of vocational education infrastructure in Panipat

District Wise ITI/ITC Infrastructure (2011)							
	Number			Sanctioned Intake			Density(Seats per Thousand Population)
Region	Govt ITI	Private ITI	Total	Govt ITI	Private ITI	Total	
Haryana	131	94	225	39140	12804	51944	2.05

Panipat	5	0	5	1128	-	1128	.92
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The ITI Panipat offers a wide spectrum of 22 courses including Carpenter, Carpenter (for SC only), COPA, COPA (for SC only), Electrician (VTIP), Electrician (for SC only), Fitter (VTIP), Fitter (for SC only), Forge and Heat Treater, Instrument Mechanic, Instrument Mechanic (For SC only), Machinist (VTIP), Machinist (for SC only), MCEMS, MCEMS (for SC only), MCOECS, Mech Motor Vehicle, Mechanic Tractor, Mechanic Tractor (for SC only), Foundryman, Plumber (for SC only), Sheet Metal Worker, Sheet Metal Worker (for SC only), Stenography English, Stenography Hindi, Tool and Die Maker, Turner (VTIP), Turner (for SC only), Welder (VTIP), Welder (for SC only) and Wireman. The ITI is also offers CoE on Process Plant Maintenance. Other government ITIs in the district offers a subset of these courses.

18.16.5.2. Youth Aspirations in the district

The youth in the district exhibited higher preference towards employment over entrepreneurship. Overall, they felt that there are reasonable employment opportunities within Panipat. However, Auto and Auto Components companies were the preferred industries. And since, majority of these companies are located in Gurgaon, Manesar and Faridabad the youth was open to travelling to these districts on daily basis from Panipat. However, they felt that the entry level salaries offered in these companies did not justify the daily commuting expense.

The youth also indicated the lack of proper career counselling options available within the district. Also, lack of soft skills and knowledge was seen as a reason for low confidence amongst youth.

Further, vocational education was seen as a least preferred option for higher studies.

Source: Primary Discussion Youth, Parents, ITI Students and Principal

18.16.5.3. Other Skill Mapping and Developmental Concerns

Dying of yarn and fabric cluster is prominent in Panipat with close to 400 functioning units functioning in this area. Spinning mills, Pickles & Jams are the other important industries of Panipat which are expected to continue to grow. The main export products from Panipat are Carpets, Cotton Darri, Made-ups, Handloom and Khadi Power looms including Curtain clothes are also manufactured and exported from the district

The proximity to markets like Delhi and hence transportation costs are not as high as some other districts remains as a key factor propelling the growth of industrialization in this district. Other factor of production like supply of power, electricity and skilled manpower remains poor within the district.

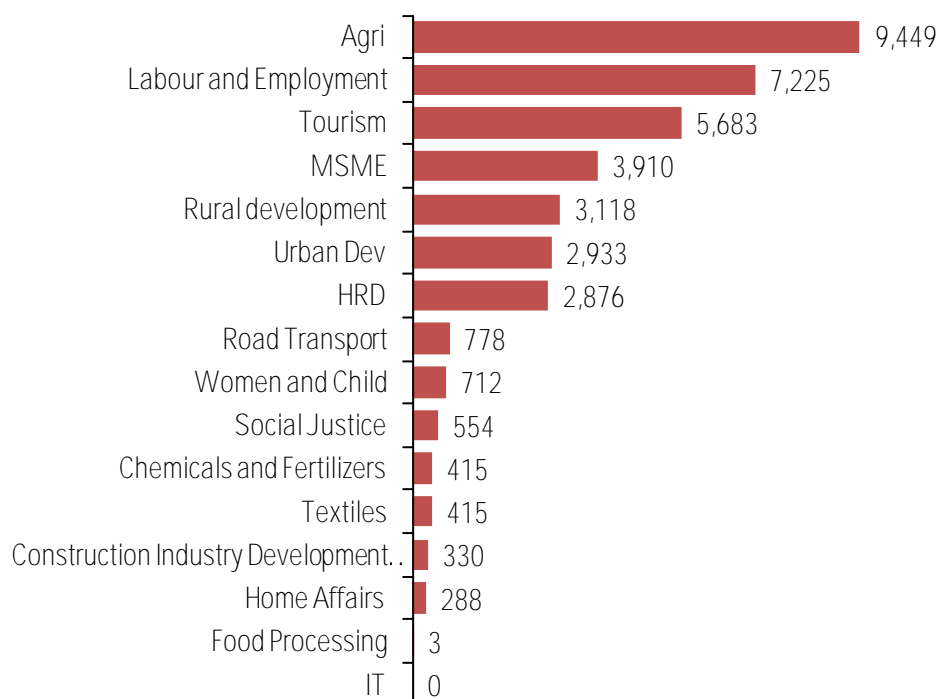
Further, supply of Chinese machinery and fabrics at a cheaper rate is making the textile industry of Panipat less competitive. Also, growth of garments and textiles exports in countries like Bangladesh, Pakistan and Sri Lanka is taking away the major share from India as labour is cheaper in these countries.

Source: Primary Discussion Industry Representatives, DIC

18.16.5.4. Incremental Training Capacity in the District through Government Endowments

According to KPMG estimates, based on the potential district budgetary allocation for various central government schemes, around 38 thousand people in total can be trained incrementally during the five year period of 2012-17. Ministry of Agriculture has significant training mandates in the district.

Potential Training Capacity in the district through Government Endowments (2012-17)



Source: KPMG Analysis, Training Plans as per various Ministries/ Departments / Organizations

18.16.6. District Specific Recommendations

Stakeholder	Action Points
NSDC	<p>Creating a favorable and positive skill environment in the district</p> <p>A majority of youth in the district continue to perceive 'skill acquisition' poorly and consider enrolling in an ITI/ITC in the region as a last resort. Awareness campaigns about benefit of acquiring vocational education at the village level in collaboration with NGOs and Community based organizations. Identify high-performing and motivated students and provide scholarships for higher education.</p> <p>Align youth aspiration to local industry demand</p>

	<p>They key large and medium scale in the district is Textiles. However, in terms of youth aspirations are Tier 1 branded corporate in Automobiles and Auto Component industries. This mismatch remains a critical factor contributing to large skill gap in the district Undertake campaigns with an aim promote local industries Set up counselling and career guidance camps to inform about the employment opportunities</p>
<p>Skill Development Training Providers</p>	<p>Focus on soft skill training to students</p> <p>Attitude and professional conducts remains a major challenge amongst local youth. Targeted training modules for soft skills to be developed and imparted to students. Facilitate camps to address behavioural and professional issue amongst students</p>
<p>Industry</p>	<p>Information of industry labour needs</p> <p>Lack of adequate industry skill requirements create issue in imparting relevant training</p> <p>Industry associations / key players in the district should co-ordinate with employment exchange to publish employment requirements reports indicating clear skill requirements for the various job opportunities</p> <p>Periodical interaction with local skill development training providers to communicate any updates in skill requirements</p>
<p>District Administration</p>	<p>Promote Skill Development in the District</p> <p>State and local government should promote vocational education as acceptable alternative to formal education. Campaigns and career counselling to promote dignity of labour and employability through skill training. Career counselling, with information on skill development should be provided at school level itself.</p>

18.17 Skill Gap Assessment of Rewari District

18.17.1. Administrative Profile

Rewari is bordered by Rohtak to the north, Gurgaon to the west, Rajasthan to the south and Mahendragarh to the south. The area of district is 1594 sq km, which accounts for 3.6 percent of the total share of state area³⁷⁰.

Administratively, the district has been divided into two sub divisions (Rewari and Kosli); three tehsils (Rewari, Bawal and Kosli) and five blocks (Rewari, Khol at Rewari, Jatusana, Bawal and Nahar).

18.17.2. Social Profile

18.17.2.1. Demographics

As per Census 2011, Rewari has a population of 9 lakhs, contributing to 3.6 percent of the total state population. The district population has grown at a decadal growth rate of 17.64 percent in the period of 2001-11.

A majority of the population in the district is rural in nature, 74.07 percent³⁷¹. The population density of the district standing at 565 persons per sq.km, is on par with the state average of 573 persons per sq.km³⁷².

The child gender ratio of Rewari is dismal and has further gone down over the past ten years (decreased from 811 females per 1000 males in 2001 to 784 females per 1000 males in 2011). The adult gender ratio fares much better from 899 females per 1000 males in 2001, to 898 females per 1000 males in 2011.³⁷³ This is above the state average of 877 females per 1000 males.

Scheduled caste population in the district is roughly at par with other districts of the state, occupying a share of 18.77 percent of total population which is slightly lower than the state average of 19.35 percent³⁷⁴. There are no Scheduled Tribes in Rewari.

18.17.2.2. Literacy

The district literacy rate of 80.99 percent (up from 75.25 % in 2001) is lower than the state average of 75.55 percent³⁷⁵. The gender disparity in education attainment levels is also prominent with a low female literacy rate of 69.57 percent when compared to the male literacy rate of 91.44 percent.

The school infrastructure in Rewari is at par with the state average shown by the below benchmarking of Rewari's School infrastructure with that of the state in terms of schools per thousand school going children.

Number of Schools per Thousand School Going Children in Rewari benchmarked against that of Haryana

³⁷⁰Haryana State Statistical Abstract 2011-12

³⁷¹http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

³⁷²http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

³⁷³http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

³⁷⁴http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

³⁷⁵http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

Region	Primary Level	Middle Level	Secondary Level
Rewari	8	8	2
Haryana	7	8	3

Number of recognized schools and student enrolments in Rewari

Region	Primary Level	Middle Level	Secondary Level
Number of schools	621	128	328
Number of scholars	49464	10176	103593

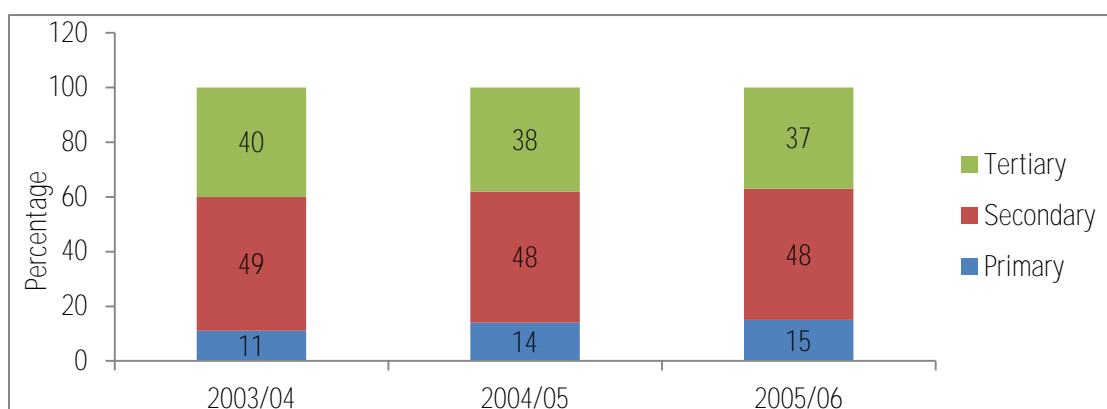
Source: Haryana Statistical Abstract 2011-12

18.17.3. District Economy

The contribution of Rewari to overall state economy is much greater than the average share on population pro-rata basis - as evident from higher Per Capita Income of INR 46,120 in comparison to state average of INR 32,712 in 2004-05 (At current prices)³⁷⁶.

Rewari is primarily an agrarian economy; with presence of some small and medium sized industries. Rewari is famous for its metal work in general and brass work in particular. Rewari is also popular for locally made ornamental shoes (jooti). The contribution of the secondary sector towards the district economy is high. The manufacturing sector is performing very well in Rewari.

Sub-Sector wise GDDP break up for Rewari District



³⁷⁶ <http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphbody.htm>

Source: Planning Commission, State Wise District Domestic Product (Data)

18.17.3.1. Agriculture and Allied sectors

Rewari like many other districts in the country as well as the state is primarily an agrarian economy. Agriculture According to the census of 2001, a majority of the working population, 57.75 percent³⁷⁷ is employed in agriculture (this is up from 47.30 % in 1991). In the year 2004-05, Agriculture contributed a minor portion (13.43 percent)³⁷⁸ of the district GDP compared to 24.39 percent for the state. The composition of the land holding in the district is shown below benchmarked against the same for the overall state.

The average land holding size of 1.81 hectares for Rewari is smaller than the state average of 2.25 hectares.³⁷⁹

Composition of the land holding in the district benchmarked against the same for the overall state

Region	Below 1 Hectares	1-3 Hectares	3-5 Hectares	5-10 Hectares	Larger than 10 Hectares
Rewari	35220	19433	6901	4222	1252
Haryana	7,78,142	4,89,777	1,79,665	1,23,898	45,829

Agriculture is the backbone of the district as there are no industries to provide rural as well as urban employment. The predominant farming system in Rewari district is Agriculture integrated with Animal Husbandry. The major cropping systems under the existing farming system are bajra –wheat, bajra-mustard guar-wheat and guar-mustard.

Buffalo is the main component under animal husbandry. Mustard and wheat are the main crops in *rabi*, which occupy 71,000 hectares and 46,000 hectares³⁸⁰. Irrigation is a major concern for farmers in Rewari with only 76.7 % of the net sown area irrigated against the average for Haryana being 82.1 %³⁸¹.

In the district, 109 hectares area has been brought under cultivation of Ber, 90 hectare under Aonla, 42 hectares under guava and 54 hectares under citrus. The other fruit trees grown are papaya (7 hectares). The total production of the fruits in the district is 2717 tons. In addition to this, vegetables are grown over an area of 4010 hectares with the production of 57,716 tons (2007-08).

The fish culture in the district is gaining up steadily in the last one decade. The area, production and productivity of fish has increased from 72.4 ha, 146 tons and 22 tons/ha in 1985 to 227.2 ha, 1124 tons and 39 tons/ha in 2007.

Dairying is one of the most important allied activities in Rewari. The area of Rohtak/ Sonipat/ Mahendragarh/ Bhiwani/ Rewari/ Jhajjar procures 422.42 lakhs litres of milk which is the highest in the state. The region also has a milk plant with a capacity of 2.5 lakhs litres per day and 4 milk chilling centre with a capacity of .7 lakhs litres per day³⁸².

³⁷⁷ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

³⁷⁸ <http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

³⁷⁹ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

³⁸⁰ <http://www.crida.in/>

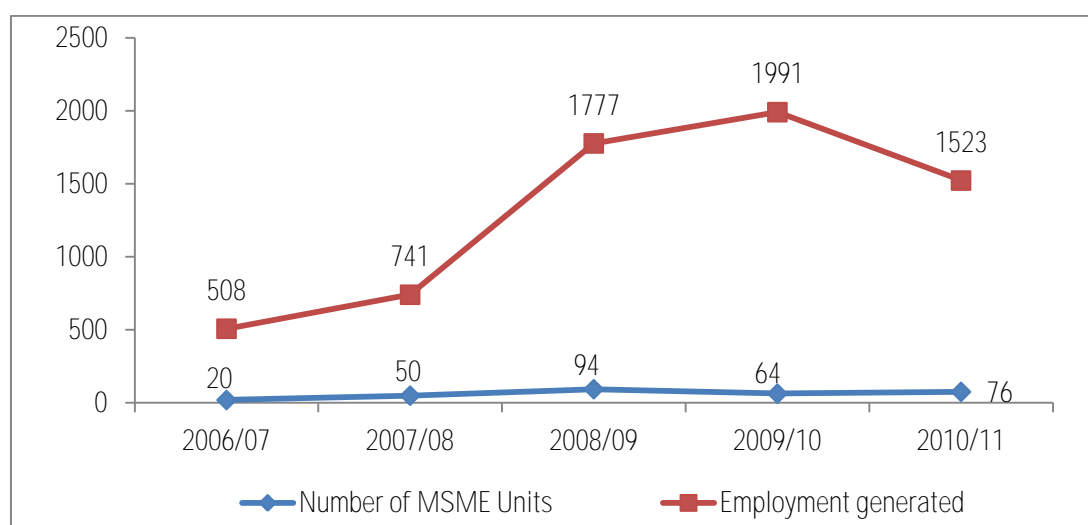
³⁸¹ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

18.17.3.2. Industry

Rewari is very well developed in terms of industry despite most of the rural and urban population being employed in agriculture. Among Small Scale Industries agro based, leather based, wood based, repairing service, rubber based, readymade garments, cotton textile and metal works based industries enjoy the highest investment and employ the maximum number of people.

As per 2011 provisional data, there are 1370 registered Industrial Units in the district employing 9313 workers in the small scale industries segment and 21000 workers in large and medium industries³⁸³. Between 2006-07 and 2011-12, Medium-Small Scale Industries segment has witnessed good growth generating additional employment during the period.

MSME growth trends in Rewari district



Source: Brief Industrial Profile MSME Rewari District

Based on discussions with District Industries Center, following potential MSME growth clusters are identified in Rewari district.

Existing Clusters	Clusters Identified for Promotion
Desi Juti (Tilla Juti), in village Odhi Tehsil Bawal, Distt. Rewari and in village Bikaner Tehsil & Distt. Rewari	Automobiles FMCG

Source: Primary Discussion with DIC, Brief Industrial Profile MSME Rewari District

³⁸² [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

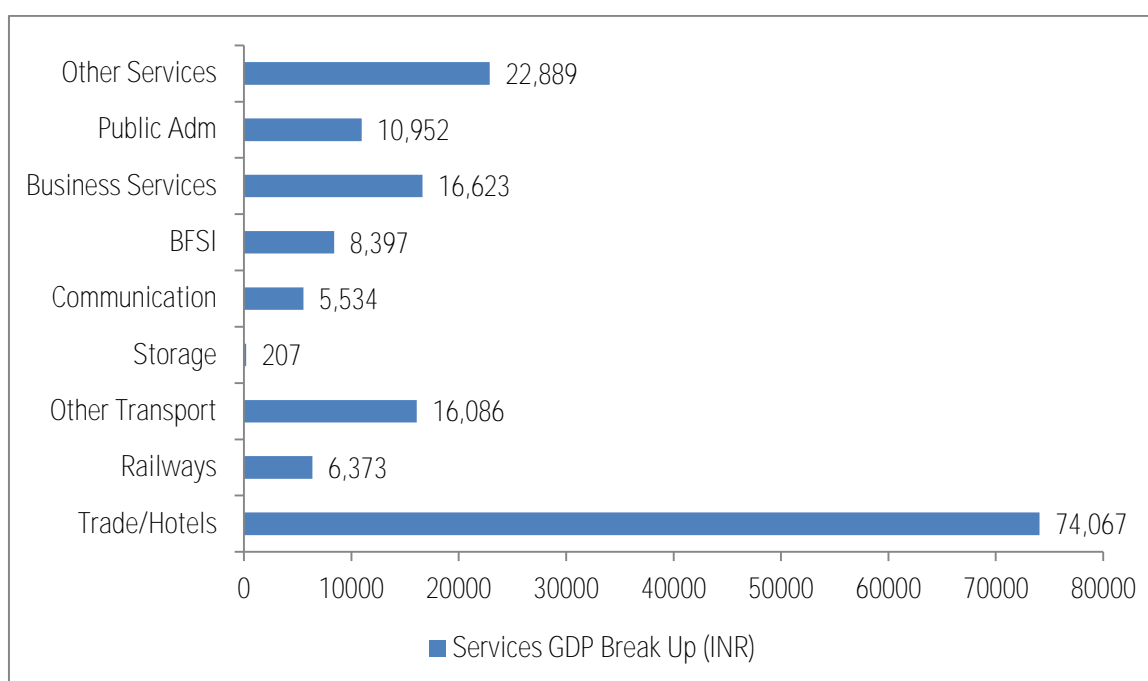
³⁸³ <http://dcmsme.gov.in/>

18.17.3.3. Services Sector

Service sector contributed 36.70 percent³⁸⁴ of GDDP in the year 2005-06. Sector has grown at a cumulative rate of 11.13 percent in the period between 2001-02 and 2005-06.

Trade/Hotels, other services, Public administration, transport and business services are key services activities in Rewari they enjoy a large share in the GDDP. Sub-sector wise contribution of services income is presented in the chart.

Sub-sector wise contribution of services income (2005-06)



Source: Planning Commission, State Wise District Domestic Product Report

Penetration of healthcare facilities measured in terms of patients treated per bed, at 1491 per bed is much better higher than the state average of 1522 per bed. District has 16 PHCs and 5 CHCs along with 111 Sub centers with limited private participation³⁸⁵. With an ever increasing population and fast paced industrial growth the district is expected to witness significant healthcare expenditure over the next decade.

Details of healthcare infrastructure in the district

Category	Number of Institutions
Allopathic Hospitals	3
Ayurvedic Institutions	19

³⁸⁴<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

³⁸⁵<http://nrhm-mis.nic.in/UI/RHS/RHS%202011/District-wise%20Health%20Centres.pdf>

Unani/Homeopathic Institutions	1
Primary Health Centers (PHCs)	16
Community Health Centers (CHCs)	5
Dispensaries	4
Total	48

Source: Haryana Statistical Abstract 2011-12

Rewari has a poor penetration of banking and financial services measured as a percentage of GDDP at 2.11 percent in comparison to state average of 4.16 percent as per 2004-05 estimates. There are 28 commercial banks, 14 co operative and 30 rural banks in Rewari³⁸⁶.

18.17.4. Workforce Distribution in the district

18.17.4.1. Current Employment Scenario in Rewari

Main Worker participation rate of 26.77 % in the district is lower than the state average number of 28.66 percent. The low participation rate is a concern for the industry. Agriculture is the major source of livelihood with about 58 % of the total work force employed in agriculture compared to 51.29 % average for the state of Haryana³⁸⁷. Female work participation in the district is low in comparison to male work participation, in line with the state level trend.

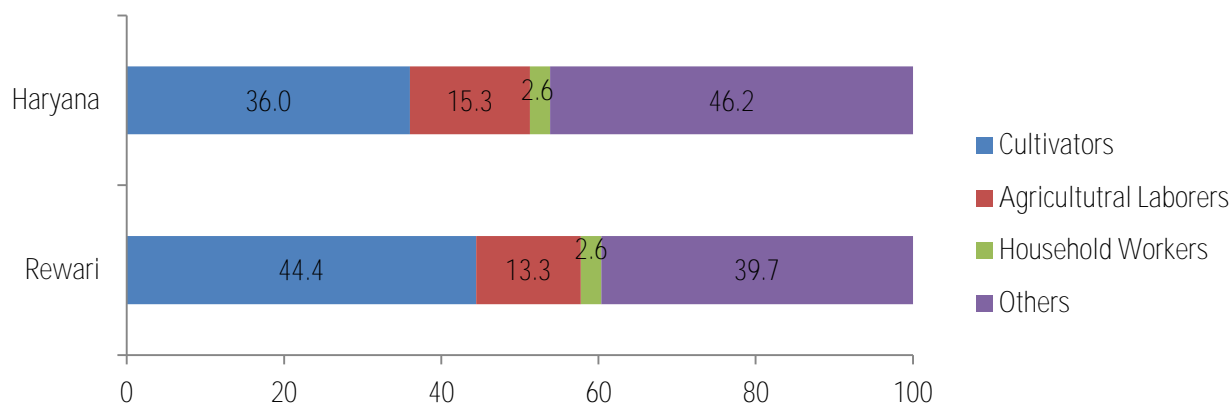
Region	Main Worker Participation	Marginal Worker Participation	Overall Non-Workers	Rural Non-Workers	Urban Non-Workers
Rewari	26.77 %	16.82 %	4,31,729	3,36,595	95,134
Haryana	28.66 %	10.10 %	1,27,67,098	85,77,673	41,89,125

High rate of marginal worker participation when compared to other parts of Haryana shows that the nature of occupation is seasonal and the disguised unemployment is high in the district.

Distribution of Working Population in Rewari

³⁸⁶ <http://dcmsme.gov.in/>

³⁸⁷ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)



Source: Haryana Statistical Abstract 2011-12

18.1.4.33. Estimation of Supply of Manpower in the District

District wise incremental supply estimates were arrived at, based on Planning Commission Population Estimates from 2001 population considering birth rate, death rate and life expectancy normalized against population corrections in 2011.

State/ District	Labour Force Supply (2012-17)			Labour Force Supply (2017-22)		
	Gross Addition to Working Age Population	Gross Addition to Labour Force	Net Addition to Labour Force-Supply	Gross Addition to Working Age Population	Gross Addition to Labour Force	Net Addition to Labour Force-Supply
Haryana	2,648,032	1,273,703	727,206	2,421,060	1,164,530	496,173
Rewari	94,042	45,355	25,895	85,982	41,467	17,668

Source: KPMG Analysis

18.1.4.34. Incremental Supply of Labour force in the District

District wise incremental supply estimates were arrived at based on Planning Commission Population Estimates from 2001 population considering birth rate, death rate and life expectancy normalized against population corrections in 2011.

Region	Supply 2012-17			Supply 2017-22		
	Skilled	Semi -	Minimally	Skilled	Semi-	Minimally

		Skilled	Skilled		Skilled	skilled
Rewari	7,928	3,317	14,649	5,409	2,263	9,995
Haryana	195,716	75,683	455,808	133,537	51,638	310,998

Source: KPMG Analysis

18.16.6.1. Incremental Manpower Requirement in the District

Incremental manpower requirement in the district of district has been estimated based on several parameters such as investments into various sectors in the district for the past 10 years, national level benchmarks on industrial growth across sectors, national inclusion targets for sectors such as banking and healthcare, employment generation potential of various sectors based on labour elasticity and market based insights from discussions with industries in district.

Sector wise skill level requirements during 2012-22

Sub Sectors	Rewari					
	2012-17			2017-22		
	Skilled	Semi-skilled	Unskilled	Skilled	Semi-skilled	Unskilled
Agriculture & Allied Activities	-	-	(2,869)	-	-	(2,820)
Auto and Auto Components	223	891	1,114	282	1,129	1,412
Banking and Financial Services	546	1,637	-	559	1,676	-
Chemical & Chemical Products	46	183	229	52	210	262
Communication	339	1,017	-	345	1,035	-
Construction	909	1,818	15,451	809	1,618	13,756
Construction Based Material	52	209	261	64	255	319
Education and Training						

	169	1,135	-	60	403	-
Fabricated metal products	50	199	249	48	193	242
Food Processing	63	244	355	81	316	460
Healthcare	570	2,279	-	623	2,493	-
Hospitality	37	55	277	33	50	249
IT&ITES	-	-	-	-	-	-
Leather						
Manufacturing of Electrical Products	44	177	222	51	204	255
Manufacturing of Engineering Products	59	238	297	68	273	342
Retail	1,470	1,470	11,759	1,317	1,317	10,534
Rubber and plastics products	34	135	168	39	155	193
Transportations and Logistics	280	4,451	5,296	347	5,512	6,557
Total	4,901	16,185	32,866	4,795	16,903	31,841

Please note that only the industries with significant manpower demand have been individually highlighted in the table.
Source: KPMG Analysis

Skill requirements in key growth sectors have been analyzed based on industry interactions to understand the detailed manpower needs. Sector level skill interventions are indicated in the section below³⁸⁸.

- Auto Assembly

³⁸⁸ KPMG Analysis

Category of Skills	Skills
Core Skills	Motor Mechanic, Diesel Mechanic, Fitter, Welder, Fabricators
Allied Skills	Electrician, Wireman
Skills with acute shortage	Specialized welders in Arc welding who can work in extreme conditions on advanced fabrication equipments

- Auto Manufacturing

Category of Skills	Skills
Core Skills	Shop floor technical workers
Allied Skills	Maintenance(Mechanical, Electrical, mechatronics, automobile electronics)
Skills with acute shortage	Painting, Body Building (spot welding), Sheet Metal Work, Machining & Casting.

- Engineering Products/ Fabricated Metal

Category of Skills	Skills
Core Skills	Motor Mechanic, Diesel Mechanic, Fitter, Welder, Fabricators
Allied Skills	Electrician, Wireman
Skills with acute shortage	Specialized welders in Arc welding who can work in extreme conditions on advanced fabrication equipments, Sheet Metal Work, Machining & Casting.

- Chemical and Chemical Products

Category of Skills	Skills
Core Skills	Mechanical, Electrical skills

Allied Skills	Instrumentation, boiler attendant, AOCP, lab attendants
Skills with acute shortage	MSc/BSc chemists, Electronic Automation with understanding of PLC systems

- Electrical and Electronics

Category of Skills	Skills
Core Skills	Electronics, PPO, Electrical, Instrumentation
Allied Skills	Fitter
Skills with acute shortage	Electronics and Instrumentation

18.17.5. Human Resource Development in the District

18.17.5.1. Current State of Workforce Development

Overall, the penetration of higher education in Rewari is considerably lower than the state average.

Comparison of higher education infrastructure in Rewari with Haryana

Category of College	Haryana	Rewari
Arts, Science and Commerce	192	10
Engineering/Technology/Architecture	168	2
Medical (Allopathy/Dentistry/Homeopathy)	27	-
Education/Teacher training	472	22
Law	11	1
Others	17	-
Total	887	35

Density(Colleges per Thousand Population)	0.04	0.03
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Source: Haryana Statistical Abstract 2011-12

The contribution of the district is at par with the state average in the vocational training infrastructure. Rewari has a total of 9 Industrial Training Institutes.

Details of vocational education infrastructure in Rewari

District Wise ITI/ITC Infrastructure (2011)							
Region	Number			Sanctioned Intake			Density(Seats per Thousand Population)
	Govt ITI	Private ITI	Total	Govt ITI	Private ITI	Total	
Haryana	131	94	225	39140	12804	51944	2.05
Bhiwani	7	2	9	1600	192	1792	1.99

Source: Department of Industrial training and Vocational Education, Haryana

ITI Rewari offers 9 courses including electrician, electronics mechanic, fitter, MCOECS, Stenography Hindi, welder, wireman and machinist. It also offers a CoE on Ref. & Air conditioning. The other ITIs offer a subset of these courses.

18.17.5.2. Youth Interaction outcomes

The youth in Rewari exhibited a high preference towards employment over entrepreneurship, specifically for government /army/ police jobs.

However, there was very low awareness about career opportunities and future prospects in private sector. The openness to migration to other districts for employment opportunities was limited and there were restrictions on mobility due to low entry level salaries. The openness to migration to other states was however much less. Owing to industrialization within the district, people were confident of finding jobs locally.

Source: Primary Discussion with local youth, ITI student and village sarpanchs

18.17.5.3. Other Skill Mapping and Developmental Concerns

The district is on a high growth trajectory of industrialization in last few years, achieving high growth of as much as upwards of 60 percent on annual basis. Availability of land, raw material, infrastructure and road connectivity has given the district the much needed push. However, the same needs to be supported with growing base of semi skilled and skilled manpower.

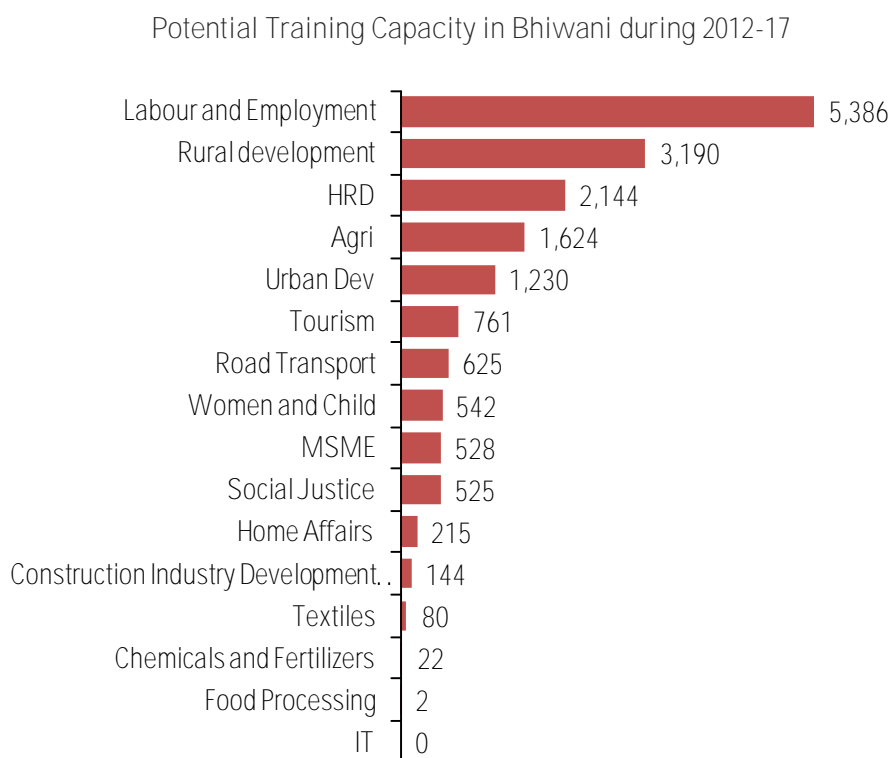
Certain large scale plants like Hero Motor, YSK and ASSY were recently set up in the district. Further, going forward Auto and Auto components, fabrication and food processing industries are expected to come up in the district. The skill training initiatives needs to be focused at these sectors.

Meanwhile, the existing industries opined that the ITI students are not industry ready and require a structured training for both technical and non technical skills. The students from ITI were seen to lack even basic trade related knowledge and machine handling skills. There were issues around attitude, flexibility and high salary expectations amongst local youth. **However, since these units don't have the system to support training to address such issues and the mode of training for them largely remains as on-job training.**

Source: Primary Discussion with industry representatives, ITI Principal and Teachers

18.17.5.4. Incremental Training Capacity in the District through Government Endowments

According to KPMG estimates, based on the potential district budgetary allocation for various central government schemes around 17 thousand people in total can be trained incrementally during the five year period of 2012-17. Ministry of Labour and Employment has significant training mandates in the district.



Source: KPMG Analysis, Training Plans as per various Ministries/ Departments / Organizations

18.17.6. District Specific Recommendations

Stakeholder	Action Points
NSDC	<p>Creating a favorable and positive skill environment in the district</p> <p>A majority of youth in the district continue to perceive 'skill acquisition' poorly and consider enrolling in an ITI/ITC in the region as a last resort. Awareness campaigns about benefit of acquiring vocational education at the village level in collaboration with NGOs and Community based organizations. Identify high-performing and motivated students and provide scholarships for higher education.</p> <p>Capacity Creation Capacity creation may be undertaken in the industrialized pockets of the district for growing affiliated service sector trades such as construction, retail, BFSI, transportation and logistics. Initiatives must be focused on more on semi-skilled levels</p>
Skill Development Training Providers	<p>Focus on soft skill training to students Attitude and professional conducts remains a major challenge amongst local youth. Targeted training modules for soft skills to be developed and imparted to students Facilitate camps to address behavioural and professional issue amongst students</p> <p>Introduction of industry relevant skills with focus on placements Rewari is fast emerging as Motorcycles, Zip Fasteners and Auto Glass hub however core industry skills are not adequately available locally. Relevant courses/modules aimed at these industries should be developed</p>
Industry	<p>Support teacher training initiatives</p> <p>Industry should conduct teacher training programs from faculty from local institutes with an aim to improve quality of training delivery and relevance of pedagogy to industry</p>
District Administration	<p>Promote Skill Development in the District</p> <p>State and local government should promote vocational education as acceptable alternative to formal education</p> <p>Campaigns and career counselling to promote dignity of labour and employability through skill training. Career counselling, with information on skill development should be provided at school level itself.</p>

18.18 Skill Gap Assessment of Rohtak District

18.18.1. Administrative Profile

Rohtak is bordered by Hisar, Jind and Panipat in the north, Sonipat and Delhi in the east, Bhiwani in the west and Rewari and Gurgaon in the south. The area of district is 1745 sq km, which accounts for 3.9 percent of the total share of state area³⁸⁹.

Administratively, the district has been divided into two sub divisions (Rohtak and Meham); four tehsils (Rohtak, Meham, Sampla and Kalanaur) and five blocks (Kalanaur, lakhan Majra, Meham, Rohtak and Sampla).

18.18.2. Social Profile

18.18.2.1. Demographics

As per Census 2011, Rohtak has a population of 10.61 lakhs, contributing to 4.19 percent of the total state population. The district population has grown at a decadal growth rate of 12.88 percent in the period of 2001-11

An overwhelming majority of the population in the district is rural in nature, 57.76 percent³⁹⁰. The population density of the district standing at 608 persons per sq.km is well above the state average of 573³⁹¹ persons per sq.km.

The child gender ratio of Rohtak is dismal and is one of the worst in the country (increased from 799 females per 1000 males in 2001 to 807 females per 1000 males in 2011). However, the adult gender ratio fares better; increasing from 847 females per 1000 males in 2001 to 868 females per 1000 males in 2011.³⁹² It is still slightly lower than the state average of 877 females per 1000 males.

Scheduled caste population in the district is significant, occupying a share of 19.10 percent³⁹³ of total population which is lower than the state average of 19.35 percent. There are no Scheduled tribes in Rohtak.

18.18.2.2. Literacy

The district literacy rate of 80.22 percent (up from 73.72 percent in 2001) is slightly better than the state average of 76.64 percent³⁹⁴ but, gender disparity in education attainment levels is prominent with a low female literacy rate of 71.72 percent. The male literacy rate stands at 87.65.

The school infrastructure is at par with the state average shown by the below benchmarking of Rohtak's School infrastructure with that of the state in terms of schools per thousand school going children. The number of

³⁸⁹Haryana State Statistical Abstract 2011-12

³⁹⁰http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

³⁹¹http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

³⁹²http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

³⁹³http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

³⁹⁴http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

schools at the primary level is much lower than the state average however at the middle level it is much better than the average of the state, at the secondary level the school infrastructure in the district largely reflects the school infrastructure in the state.

Number of Schools per Thousand School Going Children in Rohtak against that of Haryana

Region	Primary Level	Middle Level	Secondary Level
Rohtak	4	12	3
Haryana	7	8	3

Number of recognized schools and student enrollments in Rohtak

Region	Primary Level	Middle Level	Secondary Level
Number of schools	464	199	336
Number of scholars	100193	45318	57188

Source: Haryana Statistical Abstract 2011-12

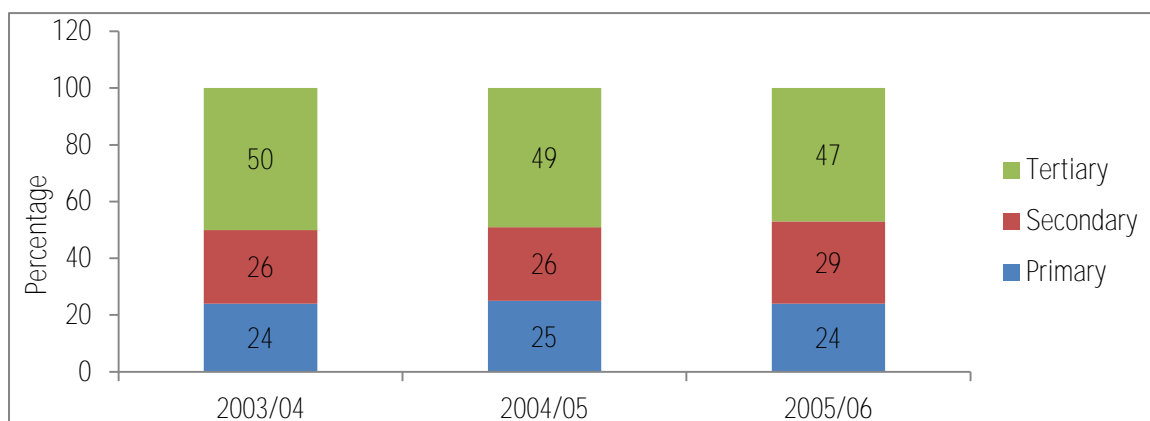
18.18.3. District Economy

Contribution of Rohtak to overall state economy is slightly below the average share on population pro-rata basis - as evident from lower Per Capita Income of INR 30,058³⁹⁵ in comparison to state average of INR 32,712 in 2004-05 (At current prices). Agriculture is an important Sub-Sector at Rohtak but unlike many other districts of Haryana Industry is also well placed at Rohtak. Rohtak is fast growing as a new Industrial Hub in the state of Haryana the prominent companies present are Maruti, Suzuki motorcycles and amul Dairy.

The Industrial Model Township that is being developed along the Hisar road by the Haryana State industrial and Infrastructure Development Corporation is accelerating the investment and employment growth in the district. The contribution of the secondary sector towards the district economy is higher than most Districts in the state. Sub-Sector wise GDDP trends in Rohtak are presented in the chart.

Sub-Sector wise GDDP break up for Rohtak District

³⁹⁵ <http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphbody.htm>



Source: Planning Commission, State Wise District Domestic Product (Data)

18.18.3.1. Agriculture and Allied sectors

Agriculture continues to be the largest employer in the district despite recent industrial growth. Although Agriculture is not the largest contributor to the district economy it employs the maximum number of the working population, according to the 2001 census estimates 50.87 percent³⁹⁶ of the working population is employed in this sector. The focus of the district is farming. The composition of the land holding in the district is shown below benchmarked against the same for the overall state³⁹⁷.

Composition of the land holding in the district benchmarked against the same for the overall state

Region	Below 1 Hectares	1-3 Hectares	3-5 Hectares	5-10 Hectares	Larger than 10 Hectares
Rohtak	28344	16828	7293	6676	1401
Haryana	7,78,142	4,89,777	1,79,665	1,23,898	45,829

Source: Haryana Statistical Abstract 2011-12

In Rohtak district Bajra/ Jawar/ Guar, Paddy, Cotton and sugarcane are the major crops in kharif season. Bajra/Jawar and Guar are distributed evenly in the sandy part while the paddy is mostly concentrated in eastern and western parts. Sugarcane and Cotton are concentrated in western part of the district.

Wheat, Mustard and Sugarcane are the major crops during Rabi season. With the help of scientists from Haryana Agriculture University and its Krishi Vigyan Kendra farm mechanization is increasingly picking up at Rohtak, the use of scientific farming is also being promoted among the farmers³⁹⁸.

³⁹⁶ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

³⁹⁷ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

³⁹⁸ <http://www.crida.in/>

The net irrigated area as a ratio of net sown area in Rohtak at 79.8 percent is much below the average for the state which is 82.1 percent. The major sources of irrigation are canals and tubewells³⁹⁹.

The district of Rohtak has also grown in the Horticulture field with financial and technical help available from the National Horticulture Mission. The net area under fruits and vegetables is 12564 hectares and the production is 1127691 MT.

Dairying is an important allied activity for the region to which Rohtak belongs. The area of Rohtak/ Sonipat/ Mahendragarh/ Rewari/ Bhiwani/ Jhajjar together procure 422.42 lakh litres of milk and also has 1 milk plant and four milk chilling centres with an average capacity of .7 lakh litres per day.⁴⁰⁰

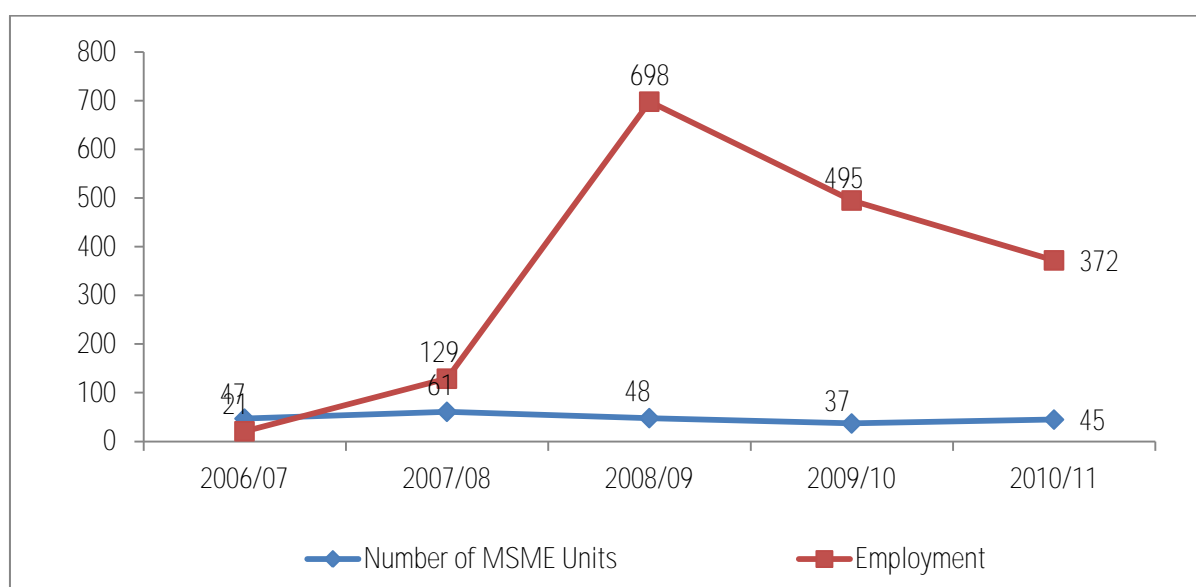
Rohtak also has the largest 804 hectares of stocked area reserved for fishing.⁴⁰¹

18.18.3.2. Industry

Agriculture is the largest employer in Rohtak but the district is relatively better off in terms of industry than many other regions of Haryana. Among Small Scale Industries Agro based, leather based, wood based, cotton textile, repairing service, engineering units and chemical based industries enjoy the highest investment and employ the maximum number of people. As per 2011 provisional data, there are 4,761 registered Industrial Units in the district. Of these, the medium and large scale units employ 2,820 workers⁴⁰².

Between 2006-07 and 2011-12, Medium-Small Scale Industries segment has witnessed good growth generating additional employment during the period.

MSME growth trends in Rohtak district



³⁹⁹ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

⁴⁰⁰ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

⁴⁰¹ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

⁴⁰² <http://dcmsme.gov.in/>

Source: Brief Industrial Profile Rohtak District MSME

Based on discussions with District Industries Center, following potential MSME growth clusters are identified in Rohtak district.

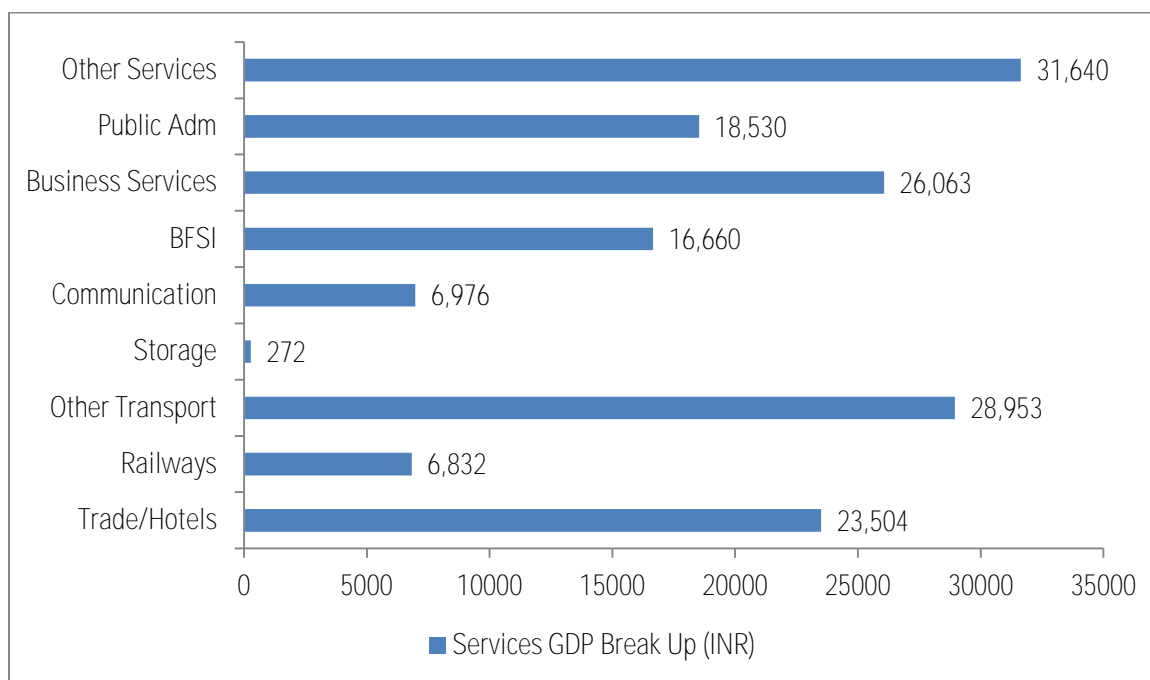
Existing Clusters	Clusters Identified for Promotion
Nut Bolts and Screws Cluster	

Source: Primary Discussion DIC, Brief Industrial Profile Rohtak District MSME

18.18.3.3. Services Sector

Service sector contributed to 47.32 percent⁴⁰³ of GDDP in the year 2005-06. Sector has grown at a cumulative rate of 10.88 percent in the period between 2001-02 and 2005-06. Trade/Hotels, other services, Public administration, transport and business services are key services activities in Rohtak they enjoy a large share in the GDDP.

Sub-sector wise contribution of services income (2005-06)



Source: Planning Commission, State Wise District Domestic Product (Data)

⁴⁰³<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphbody.htm>

Penetration of healthcare facilities measured in terms of patients served per bed, at 2781 per bed is much greater than the state average of 1522 per bed.

District has 20 PHCs and 5 CHCs along with 116 Sub centers with limited private participation⁴⁰⁴. Considering limited availability of healthcare facilities within the district, the district is expected to witness significant Government healthcare expenditure over the next decade.

Details of healthcare infrastructure in the district

Category	Number of Institutions
Allopathic Hospitals	8
Ayurvedic Institutions	30
Unani Institutions	1
Primary Health Centers (PHCs)	20
Community Health Centers (CHCs)	5
Dispensaries	12
Total	76

Source: Haryana Statistical Abstract 2011-12

Rohtak has high penetration of banking and financial services measured as a percentage of GDDP at 5.33 percent in comparison to state average of 4.16 percent as per 2004-05 estimates. There are 110 commercial banks, 20 co operative and 26 rural banks in Rohtak. Since Rohtak is primarily an agrarian economy the proliferation of private sector banks is limited with major presence of only Public sector banks⁴⁰⁵.

18.18.4. Workforce Distribution in the district

18.18.4.1. Current Employment Scenario in Rohtak

Main Worker participation rate of 30.66 % in the district is just above the state average number of 28.66 percent. The low participation rate indicates the limited proliferation of industry and overdependence on the primary sector. Agriculture is the major source of livelihood although the percentage (50.87%) of total work force it employs is at par with the average for Haryana (average of 51.29 %) ⁴⁰⁶. Female work participation in the district is low in comparison to male work participation, in line with the state level trend.

⁴⁰⁴ <http://nrhm-mis.nic.in/UI/RHS/RHS%202011/District-wise%20Health%20Centres.pdf>

⁴⁰⁵ <http://dcmsme.gov.in/>

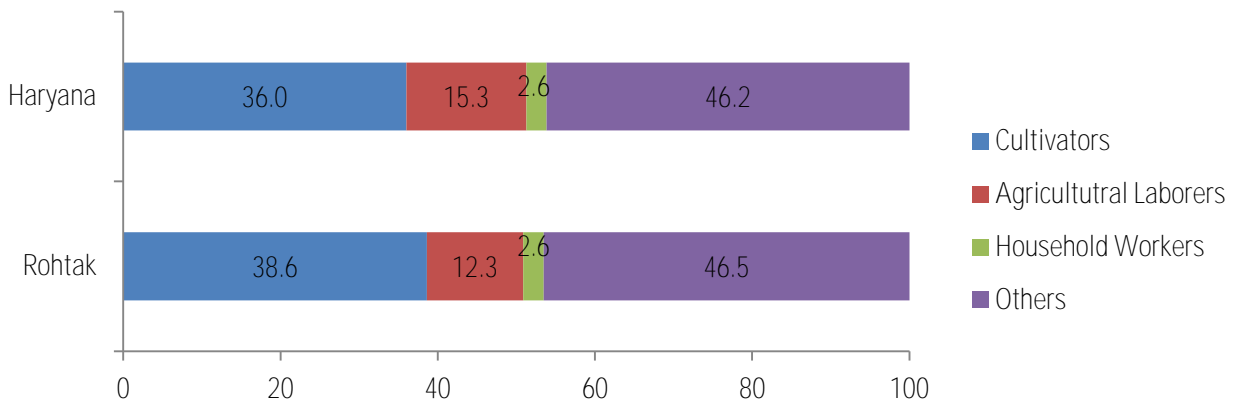
⁴⁰⁶ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

Region	Main Worker Participation	Marginal Worker Participation	Overall Non-Workers	Rural Non-Workers	Urban Non-Workers
Rohtak	30.66 %	8.81 %	53.63%	31.85%	21.77%
Haryana	28.66 %	10.10 %	50.36%	50.36%	16.52%

Source: Haryana Statistical Abstract 2011-12

Agriculture and allied sources being the major occupation reflects disguised unemployment in agriculture, especially considering the seasonal nature. Just above 50 percent of the total working population depends on agriculture, with a major share of cultivators this shows disguised unemployment of a major chunk of the population.

Distribution of Working Population in Rohtak



Source: Haryana Statistical Abstract 2011-12

18.1.4.35. Estimation of Supply of Manpower in the District

District wise incremental supply estimates were arrived at, based on Planning Commission Population Estimates from 2001 population considering birth rate, death rate and life expectancy normalized against population corrections in 2011.

State/ District	Labour Force Supply (2012-17)			Labour Force Supply (2017-22)		
	Gross Addition to Working Age Population	Gross Addition to Labour Force	Net Addition to Labour Force-Supply	Gross Addition to Working Age Population	Gross Addition to Labour Force	Net Addition to Labour Force-Supply
Haryana	2,648,032	1,273,703	727,206	2,421,060	1,164,530	496,173

Rohtak	110,846	46,862	26,755	101,345	42,845	18,255
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Source: KPMG Analysis

18.1.4.36. Incremental Supply of Labour force in the District

District wise incremental supply estimates were arrived at based on Planning Commission Population Estimates from 2001 population considering birth rate, death rate and life expectancy normalized against population corrections in 2011.

Region	Supply 2012-17			Supply 2017-22		
	Skilled	Semi - Skilled	Minimally Skilled	Skilled	Semi-Skilled	Minimally skilled
Rohtak	16,310	5,957	4,489	11,128	4,064	3,063
Haryana	195,716	75,683	455,808	133,537	51,638	310,998

Source: KPMG Analysis

18.16.1.1. Incremental Manpower Requirement in the District

Incremental manpower requirement in the district of district has been estimated based on several parameters such as investments into various sectors in the district for the past 10 years, national level benchmarks on industrial growth across sectors, national inclusion targets for sectors such as banking and healthcare, employment generation potential of various sectors based on labour elasticity and market based insights from discussions with industries in district.

Sector wise skill level requirements during 2012-22

Sub Sectors	Rohtak					
	2012-17			2017-22		
	Skilled	Semi-skilled	Unskilled	Skilled	Semi-skilled	Unskilled
Agriculture & Allied Activities	-	-	(2,432)	-	-	(2,391)
Auto and Auto Components						

	43	174	217	54	215	268
Banking and Financial Services	1,149	3,447	-	1,176	3,529	-
Chemical & Chemical Products	55	219	274	63	251	313
Communication	427	1,282	-	435	1,304	-
Construction	480	960	8,158	427	854	7,263
Construction Based Material	277	1,107	1,384	338	1,350	1,688
Education and Training	317	2,132	-	44	295	-
Food Processing	93	363	529	121	470	685
Healthcare	(168)	(672)	-	496	1,984	-
Hospitality	23	34	171	21	31	154
Manufacturing of Engineering Products	196	782	978	225	900	1,125
Retail	2,147	2,147	17,177	1,923	1,923	15,386
Transportations and Logistics	479	7,608	9,051	593	9,420	11,208
Total	5,555	19,733	35,694	5,959	22,705	35,922

Please note that only the industries with significant manpower demand have been individually highlighted in the table.
Source: KPMG Analysis

18.18.5. Human Resource Development in the District

18.18.5.1. Current State of Workforce Development

Overall, the penetration of higher education in Rohtak is considerably higher than the state average.

Comparison of higher education infrastructure in Rohtak with Haryana

Category of College	Haryana	Rohtak
Arts, Science and Commerce	192	14
Engineering/Technology/Architecture	168	7
Medical (Allopathy/Dentistry/Homeopathy)	27	1
Education/Teacher training	472	48
Law	11	2
Others	17	-
Total	887	72
Density(Colleges per Thousand Population)	0.04	0.07

Source: Haryana Statistical Abstract 2011-12

The contribution of the district is high when compared to the state average in the vocational training infrastructure. Rohtak has a total of 13 Industrial Training Institutes.

Details of vocational education infrastructure in Rohtak

District Wise ITI/ITC Infrastructure (2011)							
Region	Number			Sanctioned Intake			Density(Seats per Thousand Population)
	Govt ITI	Private ITI	Total	Govt ITI	Private ITI	Total	
Haryana	131	94	225	39140	12804	51944	2.05
Rohtak	8	5	13	3560	624	2876	3.94

Source: Department of Industrial training and Vocational Education, Haryana

ITI Rohtak offers 24 courses, including Carpentry, COPA, Draughtsmen mechanical Electrician, Electronics mechanical, Fitter, Instrument Mechanic, machinist grinder, MCOECS, Mechanic motor vehicle, mechanic ref. & air conditioning, mechanic tractor, Foundryman, Stenography English, surveyor, tool and die maker (press tools, jigs and fixtures, turner watch and clock repairer, welder, wireman and plumber. The other ITIs offer a subset of these courses. This ITI offers a CoE on automobiles.

There was moderate awareness about career opportunities available to the students in the district of Bhiwani. The youth in the district exhibited a high preference towards employment over entrepreneurship. Several factors such as poor financial capacity, work environment and socio-cultural factors influenced youth preferences towards employment.

There was a strong inclination towards government jobs over private jobs. However, low level entry salaries remained a key challenge for mobility. The minimum salary expectation for mobility was highlighted as INR 7,000-8,000 per month.

There are local job fairs held in the district, however only local companies are seen to participate in the same. Therefore, these remain of limited interest to the majority of the students.

Source: Primary Discussion with local youth, ITI student and village sarpanchs

18.18.5.3. Other Skill Mapping and Developmental Concerns

Rohtak is one of the more prosperous districts of the state of Haryana. Rohtak is also called 'The city of fasteners'. Rohtak houses key industries in precision instruments and fasteners segment, who also export globally. LPS Fasteners, M/s Navbharat and M/s Mahindra Fasteners are the big industries in the district, which manufacture nut-bolts. The district also has a large number of small and micro units manufacturing nut-bolts.

There are 13 large and medium scale enterprises. Automobile industry is coming up in the district due to raw material (Nut-bolts etc) readily being available in the district.

The major challenge that lies ahead for the district is the lack of skilled man power to support the upcoming automobile industry in the district.

The district also is home to key companies like Bharat Rasayan, producer of insecticides and pesticides and Asian Paints for paints. There are also few small industries which produce sportswear.

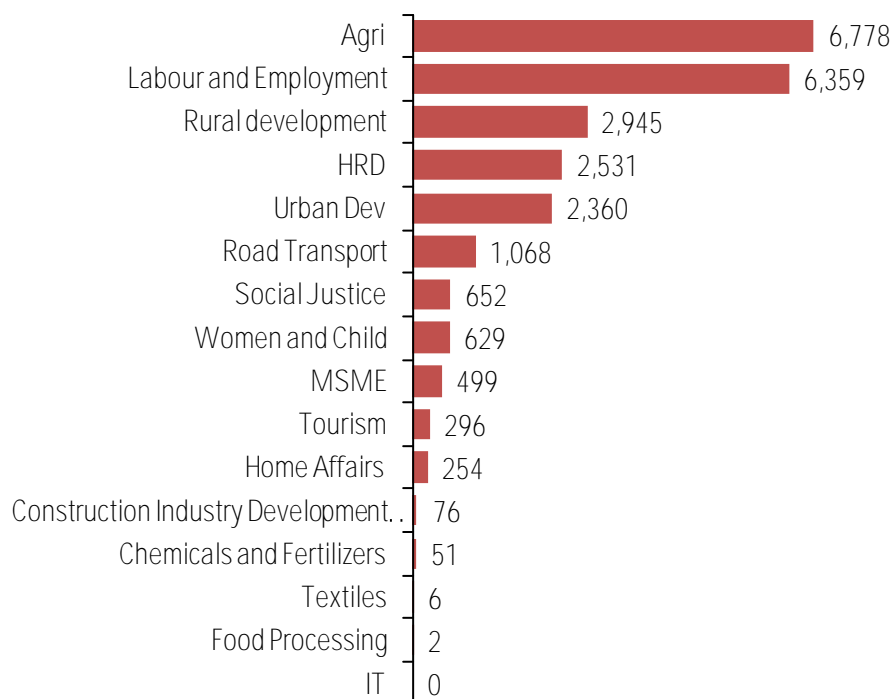
In future, Suzuki motors plans to set up their second factory and Maruti plans to set up their R&D centre in the district.

Source: Primary Discussion with industry representatives, ITI Principal and Teachers

18.18.5.4. Incremental Training Capacity in the District through Government Endowments

According to KPMG estimates, based on the potential district budgetary allocation for various central government schemes around 25 thousand people in total can be trained incrementally during the five year period of 2012-17. Ministry of Agriculture has significant training mandates in the district.

Potential Training Capacity in Rohtak during 2012-17



Source: KPMG Analysis, Training Plans as per various Ministries/ Departments / Organizations

18.18.6. District Specific Recommendations

Stakeholder	Action Points
NSDC	<p>Formal certifications for informally acquired skills</p> <p>A large number of people in the district are seen to be engaged in informal / micro /small scale sectors or livelihood trades who have acquired their skills informally.</p> <p>The key areas of informal sector where workforce is engaged are refrigeration and air conditioning etc.</p> <p>Targeted training interventions to be developed to upskill and certify those engaged in these areas</p> <p>They key small scale industries in the state are Repair and Servicing, Engineering Units, Agro Based, etc. In absence of formally certified skills, these labours tend to earn lower wages. Targeted training interventions to be developed to upskill and certify those engaged in these areas</p>
Skill Development Training Providers	<p>Introduction of short term courses for entrepreneurs</p> <p>There are over 1,400 micro and small units in Rohtak. These entrepreneurs require training on basic business courses like Marketing, Finance, HR etc. Skill training providers should introduce short term courses on business basics for these entrepreneurs</p>
Industry	<p>Support quality improvement</p> <p>There were clear qualitative gaps observed in the skilled workforce in the district. The industry should take more pro-active approach to partner with skill training providers in order to improve the quality.</p> <p>The industry can facilitate alumni interactions, on campus seminars and workshops for the student group.</p>

Focus on training in agricultural products and processing

District
Administration

There is a high dependence on primary sector in the district. However, most of the farmers are still engaged in traditional crops and have low awareness about new crops (Fruits and vegetables) or opportunities farm mechanization or processed foods

Facilitate trainings to apprise farmers about new agro and food processing opportunities, benefits of farm mechanization etc

18.19 Skill Gap Assessment of Sirsa District

18.19.1.1. Administrative Profile

The Sirsa is bounded by the districts of Faridkot and Bathinda of Punjab in the north and north east, Ganga Nagar district of Rajasthan in the west and south and Hisar district in the east. Thus, it touches the interstate boundaries on three sides and is connected with its own state only in the eastern side.

It is one of the larger districts of Haryana; the area of district is 4,277 sq km, which accounts for 9.7 percent of the total share of state area⁴⁰⁷. Administratively, the district has been divided into three sub divisions (Sirsa, Dabwali and Ellenabad); four tehsils (Sirsa, Dabwali, Ellenabad and Rania) and seven blocks (Dabwali, Baragudha, Ellenabad, Rania, Sirsa, Odhan and Nathusari Chopta);

18.19.1. Social Profile

18.19.1.1. Demographics

As per 2011 Census, Sirsa has a population of 12.95 lakhs, contributing to 5.11 percent of the state's share. The district population has grown at a decadal growth rate of 15.99 percent in the period 2001-11. Further, an overwhelming majority, i.e. 75.35 percent of the population in the district is rural.

The population density of the district standing at 303 persons per sq.km is considerably lower than the state average 573 persons per sq.km⁴⁰⁸. The child gender ratio of Sirsa is better than most other districts of Haryana and has improved a lot over the past ten years (increased from 817 females per 1000 males in 2001 to 852 females per 1000 males in 2011). The adult gender ratio also fares much better than the state average from 882 females per 1000 males in 2001, to 896 females per 1000 males⁴⁰⁹ in 2011, this is above the state average of 877 females per 1000 males.

The scheduled caste population in the district is higher than other districts of the state, occupying a share of 26.65 percent⁴¹⁰ of total population, compared to state average of 19.35 percent. There are no Scheduled Tribes in Sirsa.

18.19.1.2. Literacy

The district literacy rate of 68.82 percent (up from 60.55 % in 2001), is much lower than the state average of 75.55 percent⁴¹¹. The gender disparity in education attainment levels is also prominent with a low female literacy rate of 60.40 percent, when compared to the male literacy rate of 76.43 %.

The school infrastructure in Sirsa is at par with the state average shown by the below benchmarking of Sirsa's School infrastructure with that of the state in terms of schools per thousand school going children. In fact the district performs better than average at the middle school level.

⁴⁰⁷Haryana State Statistical Abstract 2011-12

⁴⁰⁸http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

⁴⁰⁹http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

⁴¹⁰http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

⁴¹¹http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

Region	Primary Level	Middle Level	Secondary Level
Sirsa	6	10	3
Haryana	7	8	3

Number of recognized schools and student enrolments

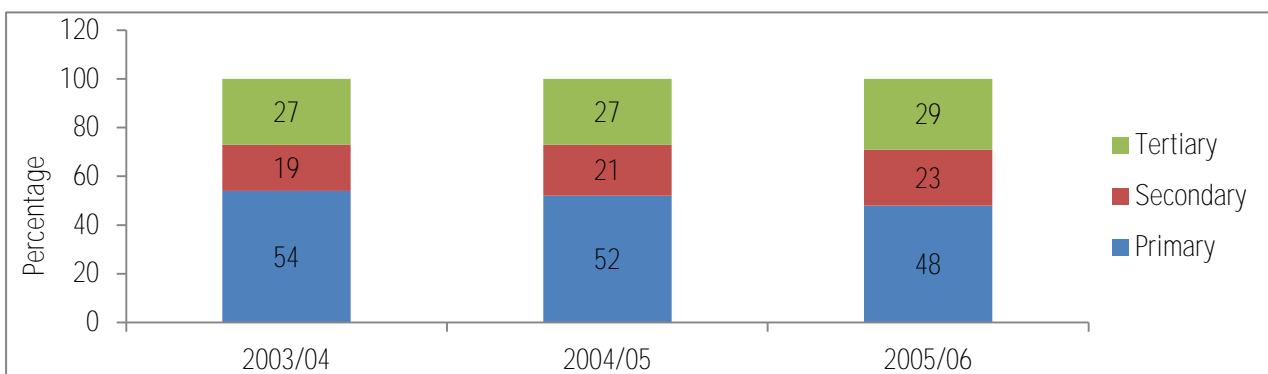
Region	Primary Level	Middle Level	Secondary Level
Number of schools	724	146	331
Number of scholars	41,853	55,291	1,37,434

Source: Haryana Statistical Abstract 2011-12

18.19.2. District Economy

The contribution of Sirsa to overall state economy is a higher than the average share on population pro-rata basis. The per capita income of the district is INR 33,209 as compared to the state average of INR 32,712 in 2004-05 (At current prices)⁴¹². Sirsa's economy is not very well developed due to its dependence on the primary sector. Sirsa is one of only two districts in Haryana that come under the Backward Regions Grant Fund Programme. The contribution of the primary sector towards the district economy is high.

Sub-Sector wise GDDP trends



Source: Planning Commission, State Wise District Domestic Product (Data)

18.19.2.1. Agriculture and Allied sectors

⁴¹² <http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

Sirsa like many other districts in the country as well as the state is primarily an agrarian economy. Agriculture employs a majority of the working population. According to the census of 2001, a majority of working population, 61.26 percent is employed in agriculture; however the share has come down from 62.93 percent⁴¹³ in 1991. In the year 2004-05, Agriculture contributed a major portion (51.40 percent) of the district GDP compared to 24.39 percent for the state⁴¹⁴.

Composition of the land holding in the district benchmarked against the same for the overall state

Region	Below 1 Hectares	1-3 Hectares	3-5 Hectares	5-10 Hectares	Larger than 10 Hectares
Sirsa	50,804	45,109	21,692	13,758	5,368
Haryana	7,78,142	4,89,777	1,79,665	1,23,898	45,829

Source: Haryana Statistical Abstract 2011-12

As evident above, the average land holding size of 2.80 hectares for Sirsa is larger than the state average of 2.25 hectares.

Agriculture is the backbone of the district Sirsa, as there are no industries to provide employment to rural as well as urban people. The major crops of the district are cotton and wheat. The introduction of improved varieties of wheat in 1960s and 70s changed the agricultural landscape of the district considerably with diversified cropping system in 60s to predominantly cotton-wheat system now. The use of fertilizers and improved irrigation facilities improved the cropping intensity to almost 165 percent⁴¹⁵.

The increase in the use of fertilizer, irrigation and now pesticides have led to increased cost of cultivation which is a major concern for farmers in the region. Irrigation in Sirsa is above the state average with 89.7 percent of the net sown area irrigated against the average for Haryana being 82.1 percent⁴¹⁶.

Dairying is a major activity in Sirsa. The area of Sirsa procures 516.60 lakhs litres of milk which is the highest in the state. The region also has a milk plant with a capacity of 2.1 lakhs litres per day and 3 milk chilling centre with a capacity of 0.33 lakhs litres per day⁴¹⁷.

18.19.2.2. Industry

Sirsa is not very well developed in terms of industry as a result of which most of the rural and urban population is employed in agriculture.

Among Small Scale Industries agro based, leather based, wood based, repairing service, rubber based metal based and mineral based industries enjoy the highest investment and employ the maximum number of people.

⁴¹³ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

⁴¹⁴ <http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

⁴¹⁵ <http://www.crida.in/>

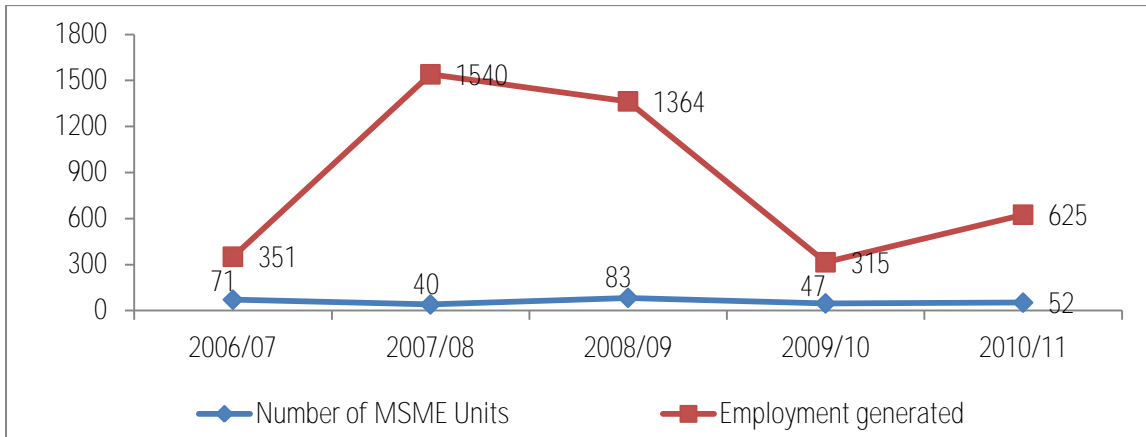
⁴¹⁶ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

⁴¹⁷ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

As per 2011 provisional data, there are 324 registered Industrial Units in the district employing 1596 workers in the small scale industries segment and 127 workers in large and medium industries.

Between 2006-07 and 2011-12⁴¹⁸, Medium-Small Scale Industries segment has witnessed good growth generating additional employment during the period.

MSME growth trends in the district



Based on discussions with District Industries Center, following potential MSME growth clusters are identified in Sirsa district.

Existing Clusters	Clusters Identified for Promotion
None	None

Source: Primary discussion District Industries Officer, Brief Industrial profile of Sirsa District, MSME

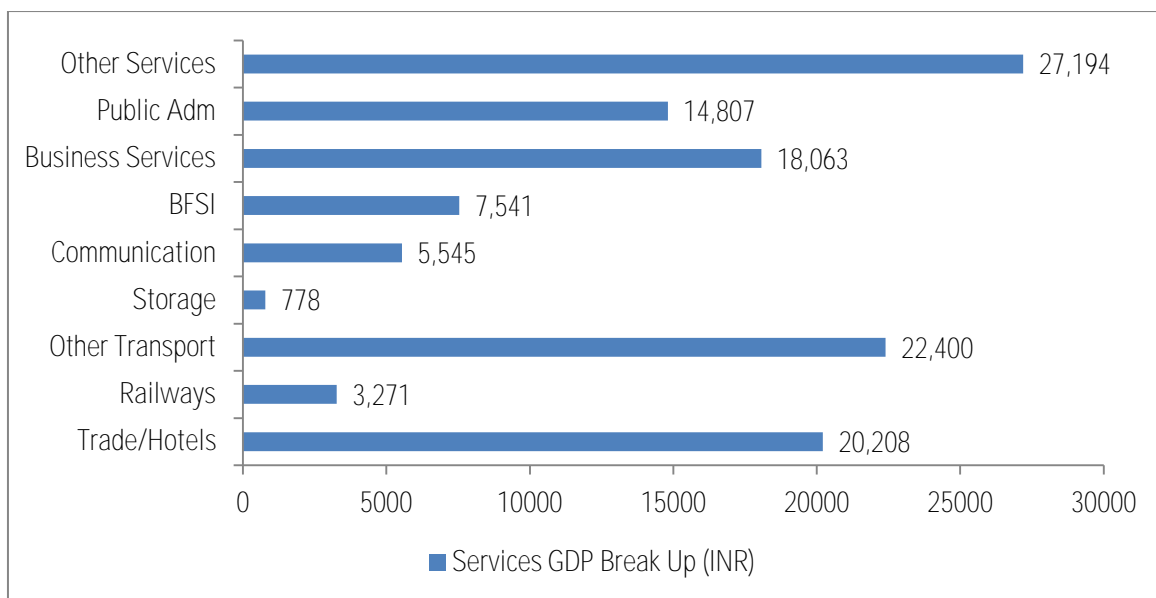
18.19.2.3. Services Sector

The service sector contributed 28.62 percent⁴¹⁹ of GDDP in the year 2005-06. The sector has grown at a cumulative rate of 10.26 percent in the period between 2001-02 and 2005-06. Trade/Hotels, other services, Public administration, transport and business services are key services activities in Sirsa they enjoy a large share in the GDDP.

Sub-sector wise contribution of services income (2005-06)

⁴¹⁸ <http://dcmsme.gov.in/>

⁴¹⁹ <http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphbody.htm>



The penetration of healthcare facilities measured in terms of patients treated per bed, at 1310 per bed is much better than the state average of 1522 per bed. The district has 24 PHCs and 6 CHCs along with 151 Sub centers with limited private participation⁴²⁰.

With an ever increasing population and fast paced industrial growth the district is expected to witness significant healthcare expenditure over the next decade.

Details of healthcare infrastructure in the district

Category	Number of Institutions
Allopathic Hospitals	3
Ayurvedic Institutions	36
Unani/Homeopathic Institutions	-
Primary Health Centers (PHCs)	24
Community Health Centers (CHCs)	6
Dispensaries	11
Total	80

Source: Haryana Statistical Abstract 2011-12

Sirsa has a poor penetration of banking and financial services measured as a percentage of GDDP at 1.93 percent in

⁴²⁰<http://nrhm-mis.nic.in/UI/RHS/RHS%202011/District-wise%20Health%20Centres.pdf>

comparison to state average of 4.16 percent as per 2004-05 estimates. There are 100 commercial banks, 41 co operative and 24 rural banks in Sirsa.⁴²¹ The credit-deposit ratio for Sirsa stands at 112.43 percent as opposed to 102 percent for the state of Haryana.

18.19.3. Workforce Distribution in the district

18.19.3.1. Current Employment Scenario in Sirsa

The main worker participation rate of 32.59 percent in the district is higher than the state average number of 28.66 percent. Female work participation in the district is low in comparison to male work participation, in line with the state level trend.

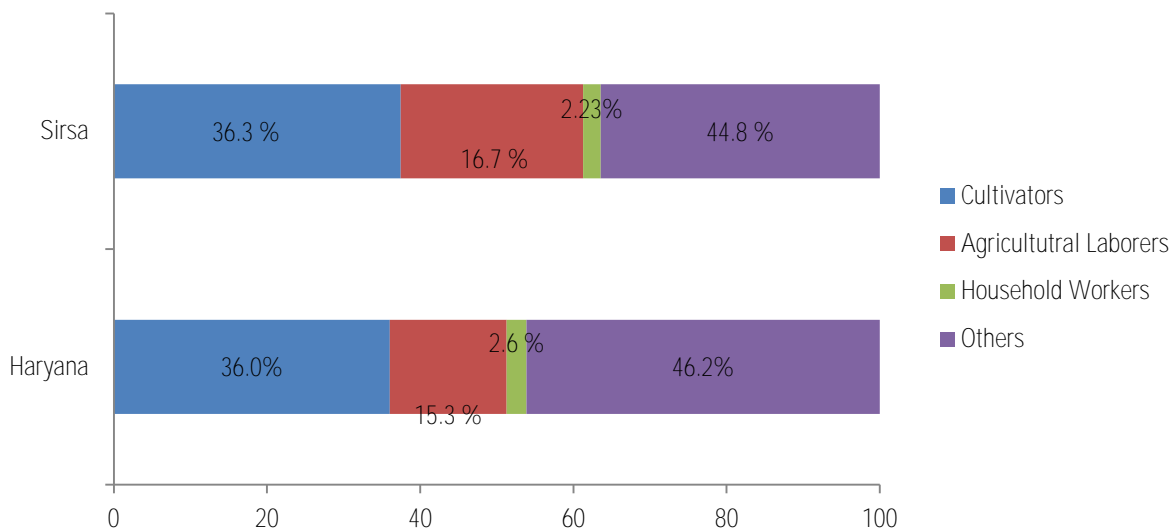
Region	Main Worker Participation	Marginal Worker Participation	Overall Non-Workers	Rural Non-Workers	Urban Non-Workers
Sirsa	32.59 %	9.99 %	48.50%	58.09%	43.53%
Haryana	28.66 %	10.10 %	50.36 %	33.83 %	16.52 %

High rate of marginal worker participation shows that the nature of occupation is seasonal and the disguised unemployment is high in the district.

Agriculture and allied sources being the major occupation reflects disguised unemployment in agriculture, especially considering the seasonal nature. Just above 50 percent of the total working population depends on agriculture, with a major share of cultivators indicating high share of disguised unemployment in the population.

Distribution of Working Population in the district

⁴²¹ <http://dcmsme.gov.in/>



A significant share of agricultural workforce is contributed by Agricultural labourers. Agricultural labors are largely constituted by migrant labourers from nearby states like Uttar Pradesh and Bihar. The migration of these labourers is seasonal in nature and is dependent on rice and sugarcane crop seasons.

18.19.3.2. Youth Interaction Outcomes

The youth in the district exhibited a high preference towards employment over entrepreneurship. Several factors such as poor financial capacity, work environment and socio-cultural factors influenced youth preferences towards employment.

Owing to absence of industries, the youth were open to migration in order to pursue employment opportunities in nearby areas including Delhi, NCR etc. However, the entry level salary expectations for mobility were in the range of INR 10,000 – INR 15,000 per month.

Overall, there was low awareness about the career opportunities for youth in the district.

Source: Primary Discussion with District youths, ITI Students and ITI Principal

18.19.3.3. Other Skill Mapping and Developmental Concerns

The economic development in the district of Sirsa is largely dependent on agriculture like cotton and wheat, while the share of secondary and tertiary sector remains limited. Even though a significant share of workforce is involved in Agriculture directly or indirectly, there is limited knowledge or training on that front.

There are no identified services or industrial clusters in the district. However, a 113 acres food park proposed to be set up at the land of villages i.e. Teja Khera, Asha Khera and Chautala. This food park is being developed by HSIDC to set up food processing units.

The district has the potential to develop small clusters for industries like Paper, Dress Making and Mills etc. Recently, a localized cluster program was held for handicrafts and cotton industries in Dabri village. However, such initiatives need to be supported in more structured fashion, with an emphasis on training on sales and marketing.

The district observes a high influx of migratory labour from the state of Bihar working as labourers in agricultural, marble cutting and floor dye.

The industry opined that the skilled manpower like students of ITI in the district lack practical training. However, absence of local industries with very low stipend to encourage mobility has resulted in few students acquiring practical training during their technical courses.

Source: Primary Discussion with District Officials, Village Sarpanchs and Industry Representatives

18.1.4.37. Estimation of Supply of Manpower in the District

District wise incremental supply estimates were arrived at, based on Planning Commission Population Estimates from 2001 population considering birth rate, death rate and life expectancy normalized against population corrections in 2011.

State/ District	Labour Force Supply (2012-17)			Labour Force Supply (2017-22)		
	Gross Addition to Working Age Population	Gross Addition to Labour Force	Net Addition to Labour Force-Supply	Gross Addition to Working Age Population	Gross Addition to Labour Force	Net Addition to Labour Force-Supply
Haryana	2,648,032	1,273,703	727,206	2,421,060	1,164,530	496,173
Sirsa	135,286	88,245	50,383	123,690	80,681	34,376

Source: KPMG Analysis

18.1.4.38. Incremental Supply of Labour force in the District

District wise incremental supply estimates were arrived at based on Planning Commission Population Estimates from 2001 population considering birth rate, death rate and life expectancy normalized against population corrections in 2011.

Region	Supply 2012-17			Supply 2017-22		
	Skilled	Semi - Skilled	Minimally Skilled	Skilled	Semi- Skilled	Minimally skilled

Sirsa	6,343	3,405	40,635	4,328	2,323	27,725
Haryana	195,716	75,683	455,808	133,537	51,638	310,998

Source: KPMG Analysis

18.16.1.1. Incremental Manpower Requirement in the District

Incremental manpower requirement in the district of district has been estimated based on several parameters such as investments into various sectors in the district for the past 10 years, national level benchmarks on industrial growth across sectors, national inclusion targets for sectors such as banking and healthcare, employment generation potential of various sectors based on labour elasticity and market based insights from discussions with industries in district.

Sector wise skill level requirements during 2012-22

Sub Sectors	Sirsa					
	2012-17			2017-22		
	Skilled	Semi-skilled	Unskilled	Skilled	Semi-skilled	Unskilled
Agriculture & Allied Activities	-	-	(3,327)	-	-	(3,271)
Agro Based Industries	25	98	123	31	125	156
Banking and Financial Services	457	1,371	-	468	1,404	-
Communication	340	1,019	-	346	1,037	-
Construction	157	314	2,672	140	280	2,379
Construction Based Material	140	560	700	171	683	853
Education and Training	454	3,058	-	75	503	-
Food Processing	25	97	142	31	119	173

Healthcare	983	3,931	-	967	3,869	-
Hospitality	111	166	831	100	150	748
Retail	1,630	1,630	13,040	1,855	1,855	14,841
Transportations and Logistics	313	4,963	5,905	387	6,145	7,311
Total	4,663	17,326	20,232	4,608	16,322	23,384

Please note that only the industries with significant manpower demand have been individually highlighted in the table.
Source: KPMG Analysis

Skill requirements in key growth sectors have been analyzed based on industry interactions to understand the detailed manpower needs. Sector level skill interventions are indicated in the section below⁴²².

- Food Processing

Category of Skills	Skills
Core Skills	Fitter, Electrician, Wireman, Instrumentation, Lab Technician
Allied Skills	Instrumentation, Packaging (Jar, Pouch) Operator, AOCP, Lab Attendant, Boiler Operator, QC Chemists, STP, ETP Operators
Skills with acute shortage	Extruder, Boiler Operators, PPO is required in industries having in house packing development

- Cultivation

Category of Skills	Skills
Core Skills	Awareness about high yield varieties, micro nutrients and pest Control, Organic farming and Vermi compost methods, Micro irrigation techniques

⁴²² KPMG Analysis

Allied Skills	Knowledge on food processing techniques and related procedures to extract greater value from farm produce
Skills with acute shortage	Usage and repair of farm equipments, Marketing and management practice

- Agri Allied

Category of Skills	Skills
Core Skills	Modern rearing techniques of live stock, piggery, goatery and fisheries
Allied Skills	Knowledge on processing techniques
Skills with acute shortage	Marketing and distribution of forest/animal husbandry produce

- Transportation and Logistics

Category of Skills	Skills
Core Skills	Heavy vehicle drivers, logistics management
Allied Skills	Administrative, computer data management
Skills with acute shortage	Scheduling and logistics planning

18.19.4. Human Resource Development in the District

18.19.4.1. Current State of Workforce Development

Sirsa is home to a number of institutes of higher education, but has a lower penetration of colleges in comparison to state average for Haryana. The Ch. Devilal University is the lone University in the district; Sirsa has three general colleges, three engineering colleges and one dental college.

Comparison of higher education infrastructure in Sirsa with Haryana

Category of College	Haryana	Sirsa
Arts, Science and Commerce	192	12

Engineering/Technology/Architecture	168	3
Medical (Allopathy/Dentistry/Homeopathy)	27	1
Education/Teacher training	472	13
Law	11	1
Others	17	-
Total	887	30
Density(Colleges per Thousand Population)	0.04	0.02

Source: Haryana Comprehensive Statistics 2011-12

The district also accounts for a high proportion of vocational education capacity in Haryana. Sirsa has 9 polytechnic institutes and 7 ITIs (both private and government). The district Sirsa also has a few computer centres which impart training in computer applications. Accessibility of vocational education in Sirsa (indicated by the penetration of vocational education) is lower than the state average.

Details of vocational education infrastructure in Sirsa

District Wise ITI/ITC Infrastructure (2011) ⁴²³							
	Number			Sanctioned Intake			Density(Seats per Thousand Population)
Region	Govt ITI	Private ITI	Total	Govt ITI	Private ITI	Total	
Haryana	131	94	225	39140	12804	51944	2.05
Sirsa	4	3	7	1536	744	2280	1.76

Source: Department of Industrial training and Vocational Education, Haryana

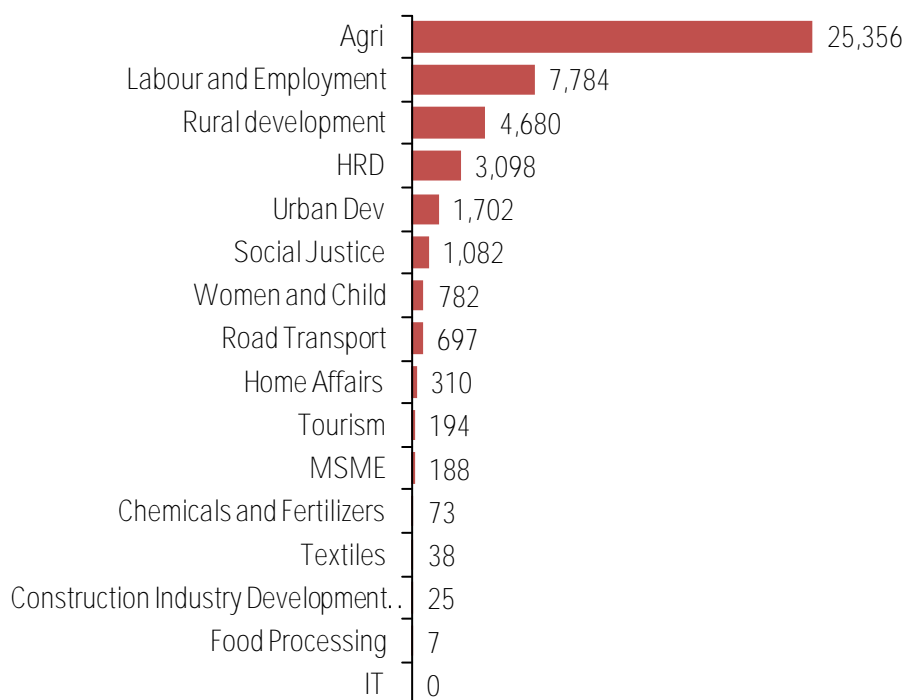
The ITI Sirsa offers a wide spectrum of 22 courses including Architectural Assistant, Carpenter, COPA, Draughtsmen Civil, Draughtsmen Mechanical, Dress Making, Electrician, Fitter, Machinist, Mechanic Diesel, Mechanic Agricultural Machinery, Mech-cum-operator Electronics Communication, Mechanic Motor Vehicle, Mechanic Refrigeration & Ac, Mechanic Tractor, Painter General, Plastic Processing Operator, Plumber, Stenography English, Stenography Hindi, Turner, Welder and Wireman. The ITI is also offers CoE on Electrical. Other government ITIs in the district offers a subset of these courses.

⁴²³ <http://itiharyana.gov.in/>

18.19.4.2. Incremental Training Capacity in the District through Government Endowments

According to KPMG estimates, based on the potential district budgetary allocation for various central government schemes, around 46 thousand people in total can be trained incrementally during the five year period of 2012-17. Ministry of Agriculture has significant training mandates in the district.

Potential Training Capacity in the district through Government Endowments (2012-17)



Source: KPMG Analysis, Training Plans as per various Ministries/ Departments / Organizations

18.19.5. District Specific Recommendations

Stakeholder	Action Points
NSDC	<p>Formal certifications for informally acquired skills</p> <p>A large number of people in the district are seen to be engaged in informal / micro /small scale sectors or livelihood trades who have acquired their skills informally.</p> <p>The key areas of informal sector where workforce is engaged are Milk plant, refrigeration and air conditioning etc. Targeted training interventions to be developed to upskill and certify those engaged in these areas</p> <p>They key small scale industries in the state are Marble Cutting, Floor Dye, Dress Making, Repair and Servicing, Engineering Units, Agro Based, and wood / wooden. In absence of formally certified skills, these labours tend to earn lower wages. Targeted training interventions to be developed to upskill and certify those engaged in these areas</p>

Skill Development Training Providers	<p>Introduction of short term courses for entrepreneurs</p> <p>There are almost 5000 micro and small units in Sirsa. These entrepreneurs require training on basic business courses like Marketing, Finance, HR etc. Skill training providers should introduce short term courses on business basics for these entrepreneurs</p>
Industry	<p>Support quality improvement</p> <p>There were clear qualitative gaps observed in the skilled workforce in the district. The industry should take more pro-active approach to partner with skill training providers in order to improve the quality.</p> <p>The industry can facilitate alumni interactions, on campus seminars and workshops for the student group.</p>
District Administration	<p>Focus on training in agricultural products and processing</p> <p>There is a high dependence on primary sector in the district. However, most of the farmers are still engaged in traditional crops and have low awareness about new crops (Fruits and vegetables) or opportunities farm mechanization or processed foods</p> <p>Facilitate trainings to apprise farmers about new agro and food processing opportunities, benefits of farm mechanization etc</p>

18.20 Skill Gap Assessment of Sonipat District

18.20.1.1. Administrative Profile

Sonipat, also spelled as Sonapat, is a district which was carved out of Rohtak and made a full fledged district on 22 December 1972. Sonipat is bordered by the states of Delhi and Uttar Pradesh as well as the districts of Rohtak, Jind and Panipat.

The area of district is 2,122 sq km, which accounts for 4.8 percent of the total share of state area⁴²⁴. Administratively, the district has been divided into four sub divisions (Sonipat, Gohana, Ganaur and Kharkhoda); four tehsils (Sonipat, Gohana, Ganaur and Kharkhoda) and seven blocks (Ganaur, Kharkhoda, Rai, Sonipat, Mundlana, Kathura and Gohana).

18.20.1. Social Profile

18.20.1.1. Demographics

As per Census 2011, Sonipat has a population of 14.50 lakhs, contributing to 5.7 percent of the total state population. The district population has grown at a decadal growth rate of 13.35 percent in the period of 2001-11. The district has a high share of rural population, with 69.50 percent of total population being rural⁴²⁵.

The population density of the district standing at 683 persons per sq.km is well above the state average of 573⁴²⁶ persons per sq.km.

The child gender ratio of Sonipat is dismal and is one of the worst in the country though it has increased from 788 females per 1000 males in 2001 to 790 females per 1000 males in 2011, it still remains poor. Meanwhile, there has been a more defined increase in the adult gender ratio also from 839 females per 1000 males in 2001, to 853 females per 1000 males in 2011⁴²⁷, which is only slightly lower than the state average of 877 females per 1000 males.

The reserved category population in the district is moderate, occupying a share of 18.09 percent of total population, which is only slightly lower than the state average of 19.35 percent⁴²⁸.

18.20.1.2. Literacy

The district literacy rate of 72.99 percent is lower than the state average of 75.55 percent⁴²⁹. Further, the gender disparity in education attainment levels is prominent. The female literacy rate remains low at 64.64 percent, compared to male literacy rate of 80.89 percent⁴³⁰. The school infrastructure is at par with the state average, as indicated by the below benchmarking of school infrastructure.

⁴²⁴Haryana State Statistical Abstract 2011-12

⁴²⁵http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

⁴²⁶http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

⁴²⁷http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

⁴²⁸http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

⁴²⁹http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

⁴³⁰[http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

Number of Schools per Thousand School Going Children in Sonipat benchmarked against that of Haryana

Region	Primary Level	Middle Level	Secondary Level
Sonipat	6	8	3
Haryana	7	8	3

Source: Haryana Statistical Abstract 2011-12

The number of schools at the primary level is lower than the state average; however at the middle and secondary levels the school infrastructure in the district largely reflects the trend of school infrastructure in the state.

Number of recognized schools and student enrolments in Sonipat

Region	Primary Level	Middle Level	Secondary Level
Number of schools	822	148	452
Number of scholars	21,930	30,749	2,46,640

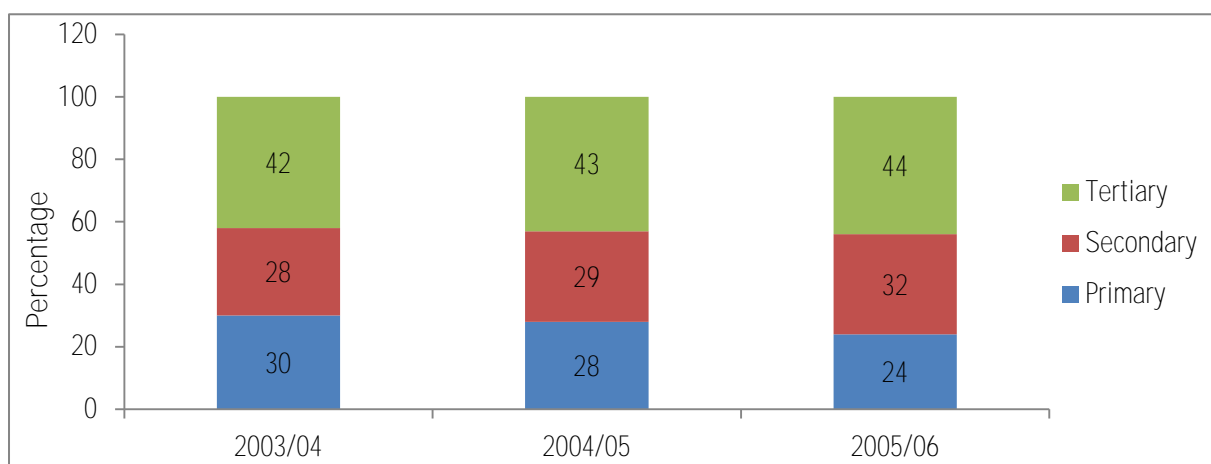
Source: Haryana Statistical Abstract 2011-12

18.20.2. District Economy

The contribution of Sonipat to the overall state economy is above the average, based on population pro-rata. The per capita income of Sonipat at INR 33,651 is higher in comparison to state average of INR 32,712 in 2004-05 (At current prices).

Agriculture is an important sub-sector at Sonipat, but unlike many other districts of Haryana, industry is also well placed in the district. Atlas Cycle was established in Sonipat in the year 1951 and today it is one of the largest manufacturers of bicycles in the world. Sonipat has four major industrial towns at Sonipat, Kundli, Rai and Barhi which contribute to the manufacturing sector. The contribution of the secondary sector towards the district economy is higher than most districts in the state.

Sub-Sector wise GDDP break up for Sonipat District



Source: Planning Commission, State Wise District Domestic Product (Data)

18.20.2.1. Agriculture and Allied sectors

Agriculture continues to be the largest employer in the district despite recent industrial growth. Although agriculture is not the largest contributor to the district economy, it employs the maximum number of the working population. According to the 2001 census estimates, 52.97 percent⁴³¹ of the working population is employed in this sector. However, the share of agriculture in the district remains limited. In the year 2004-05, agriculture contributed to 26.35 percent of the district GDP compared to 24.3 percent⁴³² for the state.

Composition of the land holding in the district benchmarked against the same for the overall state

Region	Below 1 Hectares	1-3 Hectares	3-5 Hectares	5-10 Hectares	Larger than 10 Hectares
Sonipat	42344	16981	5355	2655	737
Haryana	7,78,142	4,89,777	1,79,665	1,23,898	45,829

Source: Haryana Statistical Abstract 2011-12

Sonipat follows a Rice-Wheat pattern cropping system, as a result of which pulses and oilseeds cultivation has been marginalized in the district. Wheat is the traditional food crop of the district while rice, introduced in the district during mid-1970s, now is the prevalent kharif crop. Under rice also, the acreage is more under scented basmati and other of its type. The other major kharif crops are jowar, bajra, maize and cotton⁴³³. Sugarcane, vegetables, trees like Eucalyptus and Poplar are also being grown in the district. The farmers of Sonipat district has created a sort of record in introducing and popularizing of mushroom cultivation in and around the state.

⁴³¹ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

⁴³² <http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

⁴³³ <http://www.crida.in/>

Irrigation in the district is chiefly accomplished by canals and tube wells almost all the sown area is irrigated. Almost 100 percent of the net sown area is irrigated with canals and tubewells being the major sources of irrigation.⁴³⁴

Forestry, Fishing, Dairying and Mining are also present in the district. Sonipat also has the largest stock area (1455 hectares) reserved for fishing in the state⁴³⁵.

The area of Rohtak/Sonipat/ Mahendragarh/Rewari/Bhiwani/Jhajjar together procure 422.42 lakhs litres of milk and also has 1 milk plant and four milk chilling centres with an average capacity of .7 lakhs litres per day.⁴³⁶

The poultry farms, fish ponds, vermi-composting and bee-keeping units are also on the rise in the district. The impetus for the adoption and expansion of these allied activities in the district came from its readily available market in the National Capital of Delhi and the increasing urban population in the district itself.

18.20.2.2. Industry

The district is relatively better off in terms of industry than most other regions of Haryana. Amongst Small Scale Industries agro based, leather based, wood based, paper based, rubber/plastic/petro based, engineering units and chemical based industries contribute to highest investment and employ the maximum number of people.

As per 2011 provisional data, there are 13,039 registered industrial units in the district, employing approximately 59,707 workers on a daily basis in the small industries segment.

There are also 17,031 workers in the medium and large industries segment⁴³⁷. Upper Soles/ Shoes, Rice, Disc Brake Pad, CFL Tubes, Bicycles, Auto Parts, Sugar, Hand Tools, Rubber Belt, Milk Products and Stainless Steel Utensils are prominent large scale and medium industries segments present in the district.

Between 2006-07 and 2011-12, Medium-Small Scale Industries segment has witnessed good growth generating additional employment during the period.

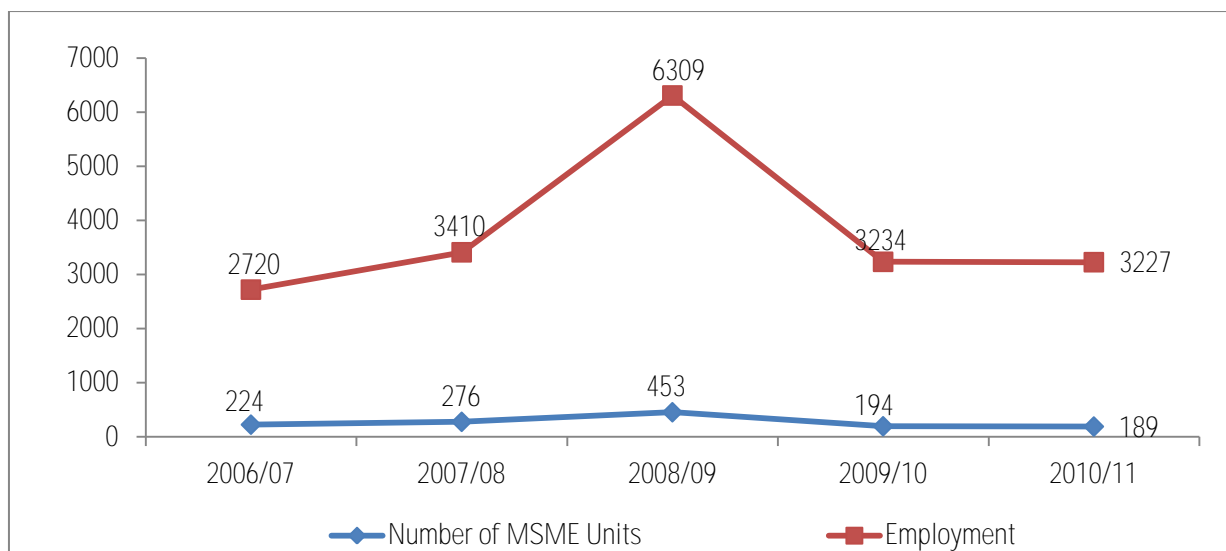
MSME growth trends in Sonipat District

⁴³⁴ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

⁴³⁵ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

⁴³⁶ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

⁴³⁷ <http://dcmsme.gov.in/>



Source: Development Commissioner Ministry of Micro, Small and Medium Enterprises, Sonipat Profile

Based on discussions with District Industries Center, following potential MSME growth clusters are identified in Sonipat district.

Existing Clusters	Clusters Identified for Promotion
Rai Printer and Packagers Cluster, Rai ,Sonipat.	Electronics Industry
Stainless Steel Cluster-Kundli ,Sonipat.	Food Processing, Rai

Source: Primary discussion District Industries Officer, Brief Industrial profile of Sonipat District, MSME

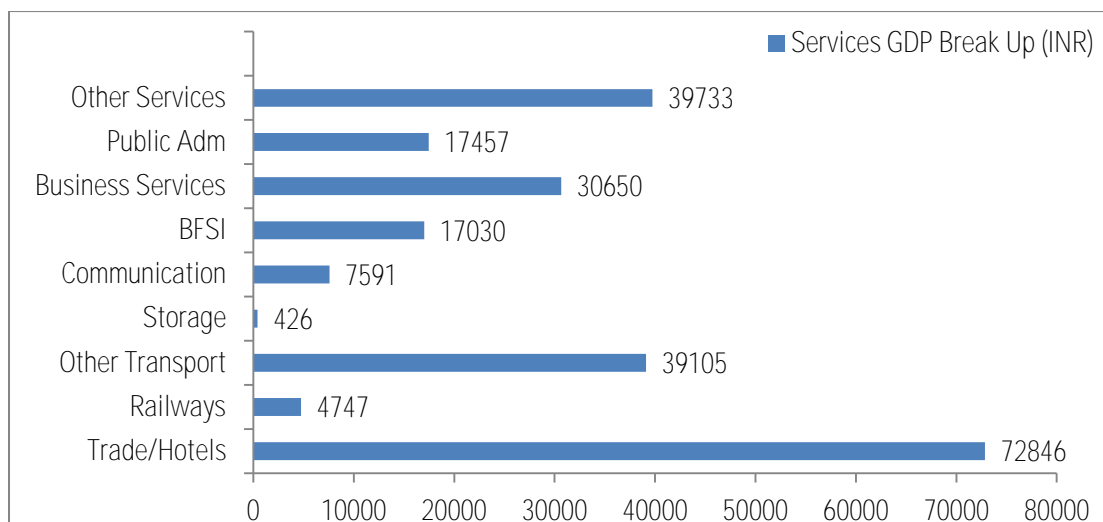
18.20.2.3. Services Sector

The share of service sector in overall GDDP is 44.22 percent⁴³⁸ of GDDP (for the year 2005-06). The services sector is constitutes largely of affiliated sectors which have resulted from industrial growth in general like Support, Transportation, Construction, Healthcare and Financial Services. There are also a few small scale industries engaged in Dyeing of Fabrics, Electroplating, Label Printing, Embroidery, Coaching etc

The sector has grown at a cumulative rate of 13.31 percent in the period between 2001-02 and 2005-06. Trade/Hotels are the key services activities in Sonipat and constitute a significant share in the services sector GDDP. Transport and banking are the other prominent sub services contributing to service sector GDDP.

Sub-sector wise contribution of services income (2005-06)

⁴³⁸<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>



Source: Planning Commission, State Wise District Domestic Product Report

The penetration of healthcare facilities measured in terms of patients served per bed, at 1946 per bed is much higher than the state average of 1522 per bed. District has 28 PHCs and 6 CHCs along with 161 Sub centers with limited private participation⁴³⁹. Owing to limited availability of healthcare facilities within the district, the district is expected to witness significant Government healthcare expenditure over the next decade.

Details of healthcare infrastructure in the district

Category	Number of Institutions
Allopathic Hospitals	2
Ayurvedic Institutions	21
Unani Institutions	2
Primary Health Centers (PHCs)	28
Community Health Centers (CHCs)	6
Dispensaries	14
Total	73

Source: Haryana Statistical Abstract 2011-12

Sonipat has low penetration of banking and financial services measured as a percentage of GDDP at 3.72 percent in comparison to state average of 4.16 percent as per 2004-05 estimates. There are 27 commercial banks and 71 rural banks

⁴³⁹<http://nrhm-mis.nic.in/UI/RHS/RHS%202011/District-wise%20Health%20Centres.pdf>

in Sonipat. The Credit Deposit Ratio for Sonipat is 727.59 percent as against 102.10 percent for Haryana indicating huge pressure on bank resources⁴⁴⁰.

18.20.3. Workforce scenario in the district

18.20.3.1. Current Employment Scenario in Sonipat

The main worker participation in the district of Sonipat is at rate of 29.98 percent is just above the state average number of 28.66 percent. There is a limited proliferation of industry and overdependence on the primary sector.

Agriculture remains the major source of livelihood with 52.97 percent of total work force being employed in it, this is comparable to state average of 51.29 percent⁴⁴¹. Female work participation in the district is low, only 34 % of working population being females.

Break Up for the Working Population of Sonipat District

Region	Main Worker Participation	Marginal Worker Participation	Overall Non-Workers	Rural Non-Workers	Urban Non-Workers
Sonipat	29.98 %	10.91 %	51.09 %	35.85 %	15.23 %
Haryana	28.66 %	10.10 %	50.36 %	33.83 %	16.52 %

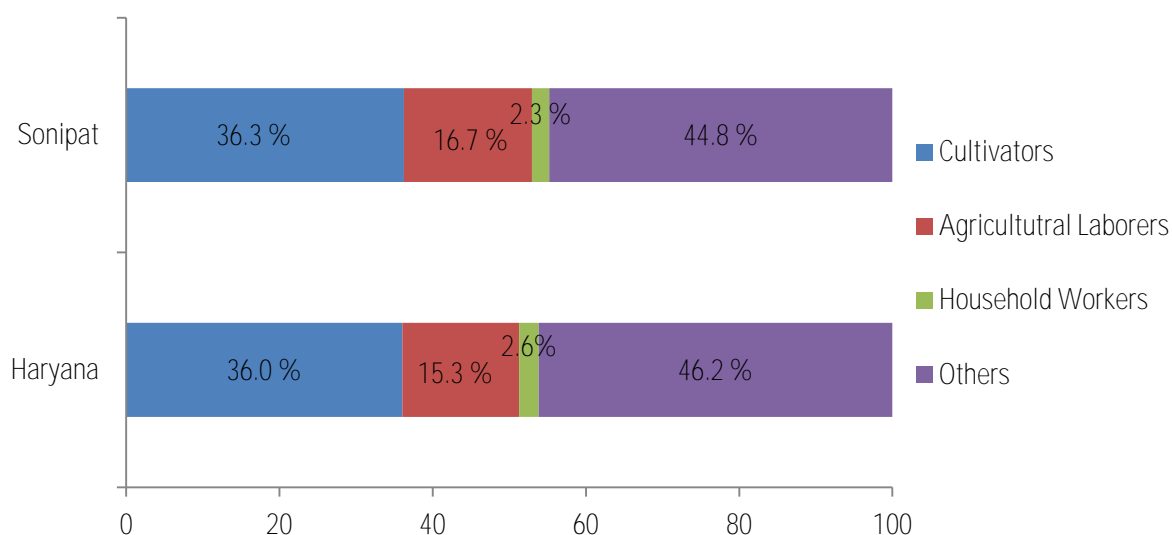
Source: Haryana Statistical Abstract 2011-12

Agriculture and allied sources being the major occupation reflects disguised unemployment in agriculture, especially considering the seasonal nature. Just above 50 percent of the total working population depends on agriculture, with a major share of cultivators this shows disguised unemployment of a major chunk of the population.

Distribution of Working Population in Sonipat

⁴⁴⁰ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

⁴⁴¹ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)



A significant share of agricultural workforce is contributed by Agricultural labours. Agricultural labours are largely constituted by migrant labours from nearby states like Uttar Pradesh and Bihar. The migration of these labours is seasonal in nature and is dependent on rice and sugar-cane crop seasons.

18.1.4.39. Estimation of Supply of Manpower in the District

District wise incremental supply estimates were arrived at, based on Planning Commission Population Estimates from 2001 population considering birth rate, death rate and life expectancy normalized against population corrections in 2011.

State/ District	Labour Force Supply (2012-17)			Labour Force Supply (2017-22)		
	Gross Addition to Working Age Population	Gross Addition to Labour Force	Net Addition to Labour Force-Supply	Gross Addition to Working Age Population	Gross Addition to Labour Force	Net Addition to Labour Force-Supply
Haryana	2,648,032	1,273,703	727,206	2,421,060	1,164,530	496,173
Sonipat	151,457	69,350	39,594	138,475	63,405	27,015

Source: KPMG Analysis

18.1.4.40. Incremental Supply of Labour force in the District

District wise incremental supply estimates were arrived at based on Planning Commission Population Estimates from 2001 population considering birth rate, death rate and life expectancy normalized against population corrections in 2011.

Sonipat is expected to witness a high growth in supply of 1.6 lakhs incremental labour force during 2012-22. High employment opportunities within district to provide employment to this growing working population have to be addressed through suitable training.

Region	Supply 2012-17			Supply 2017-22		
	Skilled	Semi - Skilled	Minimally Skilled	Skilled	Semi-Skilled	Minimally skilled
Sonipat	15,857	4,818	18,920	10,819	3,287	12,909
Haryana	195,716	75,683	455,808	133,537	51,638	310,998

Source: KPMG Analysis

18.20.3.2. Incremental Manpower Requirement in the District

Incremental manpower requirement in the district of district has been estimated based on several parameters such as investments into various sectors in the district for the past 10 years, national level benchmarks on industrial growth across sectors, national inclusion targets for sectors such as banking and healthcare, employment generation potential of various sectors based on labour elasticity and market based insights from discussions with industries in district.

Sector wise skill level requirements during 2012-22

Sub Sectors	Sonipat					
	2012-17			2017-22		
	Skilled	Semi-skilled	Unskilled	Skilled	Semi-skilled	Unskilled
Agriculture & Allied Activities	-	-	(3,613)	-	-	(3,551)
Auto and Auto Components	150	601	751	189	758	947
Banking and Financial Services	1,528	4,585	-	1,565	4,694	-
Beverages	100	400	499	130	518	647
Chemical & Chemical Products	135	541	677	155	619	774

Communication	465	1,396	-	473	1,420	-
Construction	3,645	7,290	61,964	3,245	6,490	55,166
Construction Based Material	100	399	499	122	487	608
Education and Training	35	234	-	63	427	-
Fabricated metal products	75	301	376	73	292	365
Food Processing	288	1,119	1,630	373	1,450	2,113
Footwear						
Guar Gum						
Healthcare	1,820	7,278	-	1,737	6,947	-
Hospitality	25	37	185	22	33	167
IT&ITES	1,500	3,501	-	1,630	3,803	-
Manufacturing of Electrical Products	56	226	282	65	260	325
Manufacturing of Engineering Products	125	500	625	144	575	719
Paper & Paper Products	23	92	114	26	105	132
Pharma & Medicinal Products	68	272	340	89	356	444
Retail	1,168	1,168	9,347	1,047	1,047	8,373
Rubber and plastics products	80	320	400	92	368	460

Transportations and Logistics	631	10,022	11,924	782	12,410	14,764
Total	12,018	40,281	86,002	12,021	43,059	82,454

Please note that only the industries with significant manpower demand have been individually highlighted in the table.
Source: KPMG Analysis

Skill requirements in key growth sectors have been analyzed based on industry interactions to understand the detailed manpower needs. Sector level skill interventions are indicated in the section below⁴⁴².

- Construction

Category of Skills	Skills
Core Skills	Electricians, carpenters, barbenders, welders and masons
Allied Skills	Minimally skilled workers
Skills with acute shortage	Machine Operators

- IT/ITeS

Category of Skills	Skills
Core Skills	Computer Operators, Basic Programming, Tester
Allied Skills	Minimally skilled workers
Skills with acute shortage	Machine Operators

- Transportation and Logistics

Category of Skills	Skills
Core Skills	Heavy vehicle drivers, logistics management
Allied Skills	Administrative, computer data management

⁴⁴² KPMG Analysis

Skills with acute shortage	Scheduling and logistics planning
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- Healthcare

Category of Skills	Skills
Core Skills	MBBS Doctors, MD/MS specialists, Physician Assistants/Compounders, Radiologists, Dialysis technician, Respiratory technician and OT Assistants & Perfusionist.
Allied Skills	Lab technicians, pharmacists
Skills with acute shortage	Physiotherapists, Biomedical Instrumentation technicians

- Food Processing

Category of Skills	Skills
Core Skills	Fitter, Electrician, Wireman, Instrumentation, Lab Technician
Allied Skills	Instrumentation, Packaging (Jar, Pouch) Operator, AOCP, Lab Attendant, Boiler Operator, QC Chemists, STP, ETP Operators
Skills with acute shortage	Extruder, Boiler Operators, PPO is required in industries having in house packing development

- IT/ITeS

Category of Skills	Skills
Core Skills	Testing – Web Testing or UI Testing, Coders/ Programmers, Analytic and Algorithmic Problem Solving
Allied Skills	Quality and Documentation
Skills with acute shortage	Coders/ Programmers

18.20.4. Human Resource Development in the District

18.20.4.1. Current State of Workforce Development

Sonipat is home to a number of institutes of higher education and has a high penetration of colleges in comparison to state average for Haryana. The establishment of OP Jindal Global University in 2009 has given a fillip to quality higher education in the district. The district has two more universities the Deenbandhu Chhoturam University of Science and Technology and the Bhagat Phool Singh mahila Vishwavidyalaya (one of the oldest women universities in all of North India) . In recognition of the sporting culture at Sonipat, the Sports Authority of India has established its Northern Regional Centre at Sonipat.

Comparison of higher education infrastructure in Sonipat with Haryana

Category of College	Haryana	Sonipat
Arts, Science and Commerce	192	9
Engineering/Technology/Architecture	168	21
Medical (Allopathy/Dentistry/Homeopathy)	27	1
Education/Teacher training	472	37
Law	11	1
Others	17	1
Total	887	70
Density(Colleges per Thousand Population)	0.04	0.05

Source: Haryana Comprehensive Statistics 2011-12

The district also accounts for significantly high proportion of vocational education capacity in Haryana. Sonipat has 3 polytechnic institutes and 15 ITIs (both private and government).The district Sonipat also has nine computer centres which impart training in computer applications. Accessibility of vocational education in Sonipat is clearly better than the state average.

Details of vocational education infrastructure in Sonipat

District Wise ITI/ITC Infrastructure (2011) ⁴⁴³			
	Number	Sanctioned Intake	Density(Seats per Thousand

⁴⁴³ <http://itiharyana.gov.in/>

Region							Population)
	Govt ITI	Private ITI	Total	Govt ITI	Private ITI	Total	
Haryana	131	94	225	39140	12804	51944	2.05
Sonipat	11	4	15	3292	208	3500	2.36

Source: Department of Industrial training and Vocational Education, Haryana

The ITI Sonipat offers a wide spectrum of 28 courses including Book Binder, Carpentry, Draughtsmen Mechanical, Mechanic Diesel, Electrician, Electronics Mechanic, Fitter, Litho Offset Machine Minder, Machinist, Machinist Grinder, MCOECS, Mechanic Machine Tool Maintenance, Mechanic Motor Vehicle, Mechanic Radio and TV, Mechanic Refrigeration & Ac, Mechanic Tractor, Foundryman, Painter General, Plastic Processing Operator, Plumber, Sheet Metal Worker, Stenography English, Stenography Hindi, Tool and Die Maker, Tuner, Welder and Wireman. The ITI is also offers CoE on Electrical. Other government ITIs in the district offers a subset of these courses.

18.20.4.2. Youth Interaction Outcomes

The youth in the district of Sonipat exhibited a high preference towards employment over entrepreneurship. Several factors such as poor financial capacity, work environment and socio-cultural factors seemed to influence youth preferences towards employment. Within employment, there was higher inclination towards government jobs over private sector jobs.

In terms of private industry, there was a high preference towards auto and auto components, mechanical and electronics industry. However, there was low – medium awareness about the career opportunities available to them. While jobs fairs and motivational camps were held at the institutes helped them understand about the various career opportunities across sectors, the effectiveness of those were limited.

In terms of choice of education, there is a poor perception of vocational training and it remains as one of least preferred option. Students from weaker sections of the society, both economically and socially, are seen to opt for vocational courses over higher education programs primarily due to financial constraints.

The students also exhibited willingness to migrate within the state, in regions of Faridabad, Manesar and Gurgaon. However, the entry level salary expectations were upwards of INR 12,000 per month, which is higher than entry level - 9,000 which is marginally higher than the market level salaries.

Source: Primary Discussion with local youth, ITI student and village sarpanchs

18.20.4.3. Other Skill Mapping and Developmental Concerns

While, there is significant presence of large and medium scale units in the district, approximately 90 percent of investment, turnover and employment are concentrated in Sonipat Tehsil alone⁴⁴⁴.

Further, Upper Shoes / Soles, Rice, Disc Brake, CFL Tubes, Cycles, Auto Parts, Sugar, Hand Tools, Tin, Electronics and Footwear are the key industries in the district accounting for 80% of the employment in the area. Proposed investment in the district is expected to happen in the above mentioned industries. Therefore, it is critical to focus on these areas and industries for the purpose of skilling and upskilling.

For these key industries, there is a lack of key skills in the district. For example, there are six large and medium scale rice units in the district contributing to second largest employment (~ 2,500 people). These units require skills like SCADA operators, Extruding Machine Operators, Boiler Fitters, STP and ETP Operators. However, specific courses focusing on these trades are missing in the district. There are also three large and medium scale units of CFL Tube companies in the district which require basic multi skilled operators (For e.g. a mechanical operator with basic knowledge of Fitter, Welder, and Turner etc). In order to address the gap in the district, one of the large scale units (Osram) in the district have set up their own skill training institute.

There is also a very high drop out rates during apprenticeship programs (as high as 40 percent). Further, the industries find attitude and professional conduct a major issue amongst local youth. These industries also recruit a significant share (30-40 percent) from other districts in Haryana and states. The large scale units also make significant investment in terms of time and capital to deal with non technical manpower issues amongst entry level workforce.

Other Tehsils like Ganaur, Gohana and Kharkhoda have limited penetration of large and medium scale industries. It will be imperative to focus on Small Scale industries or Self Employment in these areas. The key small scale industries in the district are Repair and Servicing, Engineering Units, Agro Based, Chemical/ Chemical based products and wood / wooden based products.

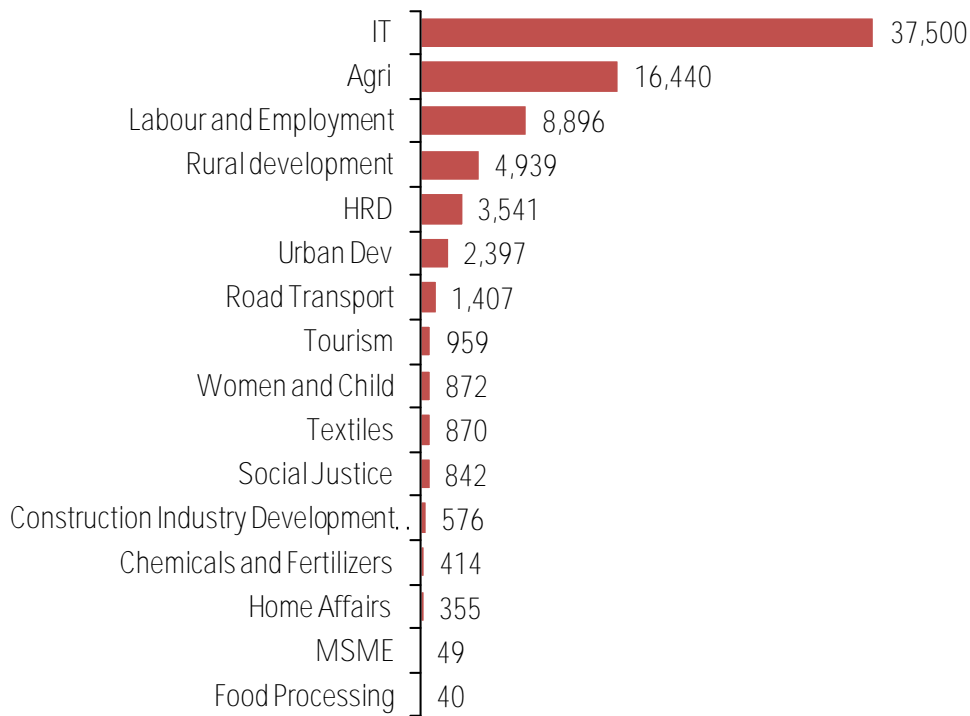
Source: Primary Discussion with industry representatives, ITI Principal and Teachers

18.20.4.4. Incremental Training Capacity in the District through Government Endowments

According to KPMG estimates, based on the potential district budgetary allocation for various central government schemes around 48 thousand people in total can be trained incrementally during the five year period of 2012-17. Ministry of Agriculture has significant training mandates in the district.

Potential Training Capacity in Sonipat through Government Endowments (2012-17)

⁴⁴⁴ KPMG Analysis, DIC Data



Source: KPMG Analysis, Training Plans as per various Ministries/ Departments / Organizations

18.20.5. District Specific Recommendations

Stakeholder	Action Points
NSDC	Creating a favorable and positive skill environment in the district
	<ul style="list-style-type: none"> A majority of youth in the district continue to perceive 'skill acquisition' poorly and consider enrolling in an ITI/ITC in the region as a last resort. Awareness campaigns about benefit of acquiring vocational education at the village level in collaboration with NGOs and Community based organizations Identify high-performing and motivated students and provide scholarships for higher education
	Capacity Creation
	<ul style="list-style-type: none"> Capacity creation may be undertaken in the industrialized pockets of the district i.e. Sonipat Tehsil for growing affiliated service sector trades such as construction, retail, BFSI, transportation and logistics. Initiatives must be focused on more on semi-skilled levels
	Formal certifications for informally acquired skills
	<ul style="list-style-type: none"> A large number of people in the district are seen to be engaged in informal / micro /small

	<p>scale sectors in Ganaur, Gohana and Kharkhoda tehsil who have acquired their skills informally.</p> <ul style="list-style-type: none"> • The key areas of informal sector where workforce is engaged are Sheet Fabrication, Threshers, Agro Based etc. Targeted training interventions to be developed to upskill and certify those engaged in these areas • They key small scale industries in the state are Repair and Servicing, Engineering Units, Agro Based, and wood / wooden. In absence of formally certified skills, these labours tend to earn lower wages. Targeted training interventions to be developed to upskill and certify those engaged in these areas
Skill Development Training Providers	<p>Introduction of industry relevant skills with focus on placements</p> <ul style="list-style-type: none"> • Significant employment in the industry is undertaken by several large and medium scale units in rice and food processing industry in the district. However, basic skills like SCADA operators, Extruding Machine Operators, Boiler Fitters, STP and ETP Operators required are not available in local industries • Introduction of Multi skilled operators (For e.g. a mechanical operator with basic knowledge of Fitter, Welder, and Turner etc) for electronics and electrical industry in the district <p>Introduction of self employment focused courses in low industrialized areas</p> <ul style="list-style-type: none"> • The level industrialization varies significantly in Sonipat district and certain tehsils like Ganaur and Kharkhoda has significantly less share of industrialization. Further, there is a limited interest in migration by local youth necessitating the need for self employment opportunities in the district. • For the areas having low industrial presence, the focus of skill training institutes should be on self employment focused courses like repair, mechanic, painter etc <p>Focus on soft skill training to students</p> <ul style="list-style-type: none"> • Attitude and professional conducts remains a major challenge amongst local youth. As a result, most industries give preference to youth from other states for entry level workforce • Focus on soft skill training modules with an aim to develop
Industry	<p>Information of industry labour needs</p> <ul style="list-style-type: none"> • Lack of adequate industry skill requirements create issue in imparting relevant training • Industry associations / key players in the district should co-ordinate with employment exchange to publish employment requirements reports indicating clear skill requirements for the various job opportunities

- Periodical interaction with local skill development training providers to communicate any updates in skill requirements

Support teacher training initiatives

- Industry should conduct teacher training programs from faculty from local institutes with an aim to improve quality of training delivery and relevance of pedagogy to industry

Increase desirability of jobs in key manufacturing sector in the district

- Manufacturing sector is the backbone of the district; however, perceptions of extreme work conditions have resulted in low preference for the industry amongst youth.
- Build awareness about industry, career prospects , benefits etc amongst local youth through motivational camps and job fairs
- Industry heads should work on improving work conditions and ensure compliance to safety, health and welfare norms
- Local industry should encourage relevant trainings to apprenticeship program with an aim to promote industry attractiveness amongst youth.

Facilitate women participation in skill development

- The female literacy rate in the district at 65 percent is much lower than male literacy rate of 81 percent, thereby necessitating the needs for policy interventions
- Facilitate formation of SHG's which will involve more women with an aim to empower

District
Administration

18.17.1.1. Promote Skill Development in the District

- State and local government should promote vocational education as acceptable alternative to formal education
- Campaigns and career counselling to promote dignity of labour and employability through skill training
- Career counselling, with information on skill development should be provided at school level itself.

18.21 Skill Gap Assessment of Yamunanagar District

18.21.1.1. Administrative Profile

The Yamunanagar district is bordered by the districts of Ambala, Kurukshetra on its West and North West. It borders Himachal Pradesh in the North and Uttar Pradesh in the South. It is also situated in close proximity to the state of Uttarakhand to the East.

The district covers an area of 1768 sq. km., which accounts for 3.99 percent of the total share of land area⁴⁴⁵. Administratively, the district consists of two sub divisions (Jagadhri and Bilaspur); three tehsils (Jagadhri, Chhachhrauli, Bilaspur) and six blocks (Jagadhri, Chhachhrauli, Bilaspur, Sadhaura, Mustafabad and Radaur).

18.21.1. Social Profile

18.21.1.1. Demographics

According to 2011 census data, the district has a population of 12.14 lakhs, contributing to 4.78 percent of the total state population. The district population has grown at a decadal growth rate of 16.57 percent in the period of 2001-11. The district has high share of rural population, with 61.06 percent⁴⁴⁶ of the population being rural.

The population density of the district stands at 687 persons per sq.km, which is higher than the state average of 573 persons per sq.km⁴⁴⁷. The child gender ratio of Yamunanagar is 826 per 1000 males which is an increase from 806 in 2001. The adult gender ratio has fared better increasing from 862 females per 1000 males in 2001, to 877 females per 1000 males in 2011⁴⁴⁸.

The scheduled caste population in the district is significantly higher than other districts, occupying a share of 24.53 percent⁴⁴⁹ of total population, which is higher than the state average of 19.35 percent. There are no Scheduled Tribes in Haryana.

18.21.1.2. Literacy

The district literacy rate is 77.99 percent, up from 71.63 percent in 2001. It is higher than the state average of 75.55 percent⁴⁵⁰. The gender disparity in education attainment levels is significant with a female literacy rate of 63.39 percent when compared to the male literacy rate of 78.82 percent.

The school infrastructure is at par with the state average for the primary level and secondary level but higher in the middle level of education, as shown by the graph below.

Number of schools per thousand school going children

⁴⁴⁵Haryana State Statistical Abstract 2011-12

⁴⁴⁶http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

⁴⁴⁷http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

⁴⁴⁸http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

⁴⁴⁹http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

⁴⁵⁰http://www.censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html

Region	Primary Level	Middle Level	Secondary Level
Yamunanagar	7	14	3
Haryana	7	8	3

The number of schools and figures of enrolment for the district are presented below.

Number of recognized schools and student enrolments

Region	Primary Level	Middle Level	Secondary Level
Number of schools	926	240	317
Number of scholars	1,00,644	56,572	56,731

Source: Haryana Statistical Abstract 2011-12

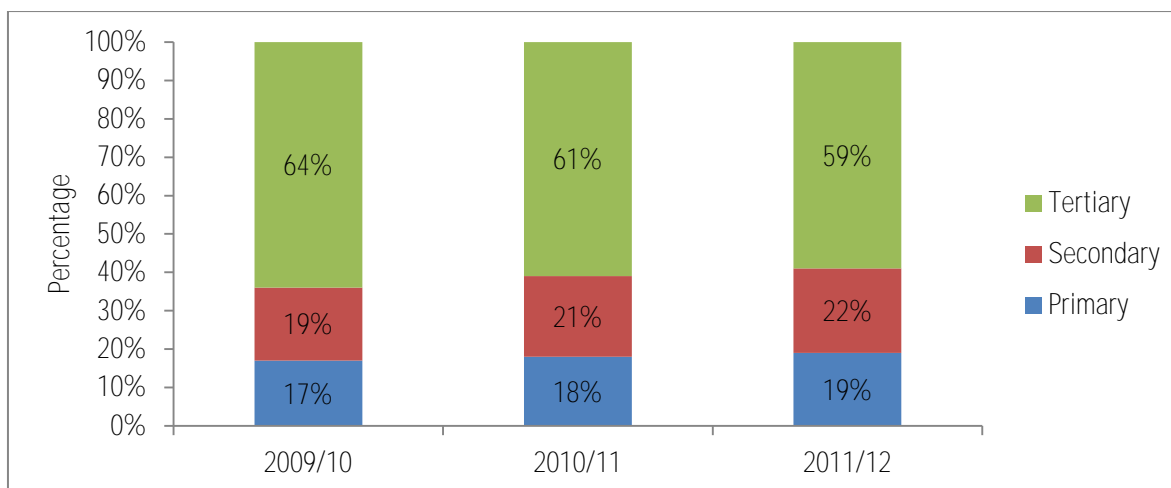
18.21.2. District Economy

The contribution of Yamunanagar to the overall state economy is at level with the capacities and resources of the district. However, the per capita income of INR 30,368 is lower than the state average of INR 32,712 in 2004-05 (At current prices)⁴⁵¹.

Yamunanagar's economy is powered by a number of industries. Small to medium sized businesses make up a significant portion of the GDDP. The city, for example, is involved extensively in the production of sugar machinery, paper machinery production and equipment for petro-chemical plants. The contribution of the tertiary sector towards the district economy is higher than most districts in the state.

Sub-Sector wise GDDP trends

⁴⁵¹ <http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphbody.htm>



Source: Planning Commission, State Wise District Domestic Product (Data)

18.21.2.1. Agriculture and Allied sectors

Yamunanagar, like many other districts in the country, has a large primary sector. However, it is not the primary source of employment or GDDP. According to the census of 2011, a little over 33 percent of the working population is employed in agriculture. In the year 2004-05, the agriculture contributed a 20.83 percent of the district GDP compared to 24.39 percent⁴⁵² for the state. There are a few large land holdings indicating intensive and mechanized farming.

Composition of the land holding in the district benchmarked against the same for the overall state

Region	Below 1 Hectares	1-3 Hectares	3-5 Hectares	5-10 Hectares	Larger than 10 Hectares
Yamunanagar	25920	18031	12465	6531	1274
Haryana	7,78,142	4,89,777	1,79,665	1,23,898	45,829

Source: Haryana Statistical Abstract 2011-12

Sugarcane, rice, bajra, maize and wheat are grown in the district accounting for 76.01 percent of the total cropped area. The area under irrigation to net sown area is 94.8 percent, as against the state average of 84.1 percent⁴⁵³. The irrigation intensity of the district is 176.7 percent as against the state average of 184.6 percent. Cropping systems like rice-wheat or maize wheat combinations rely on inflow of groundwater and a steady monsoon, making the district vulnerable to changes in weather patterns.

⁴⁵² <http://www.crida.in/>

⁴⁵³ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

Bee keeping is a profitable allied activity in Yamunanagar. About 41 percent of the land area comes under forestry with enough flora and fauna to sustain the vocation⁴⁵⁴. There are 416 bee keeping units in the district with plans to add 160 more. This could further provide employment to unemployed youth in the region.

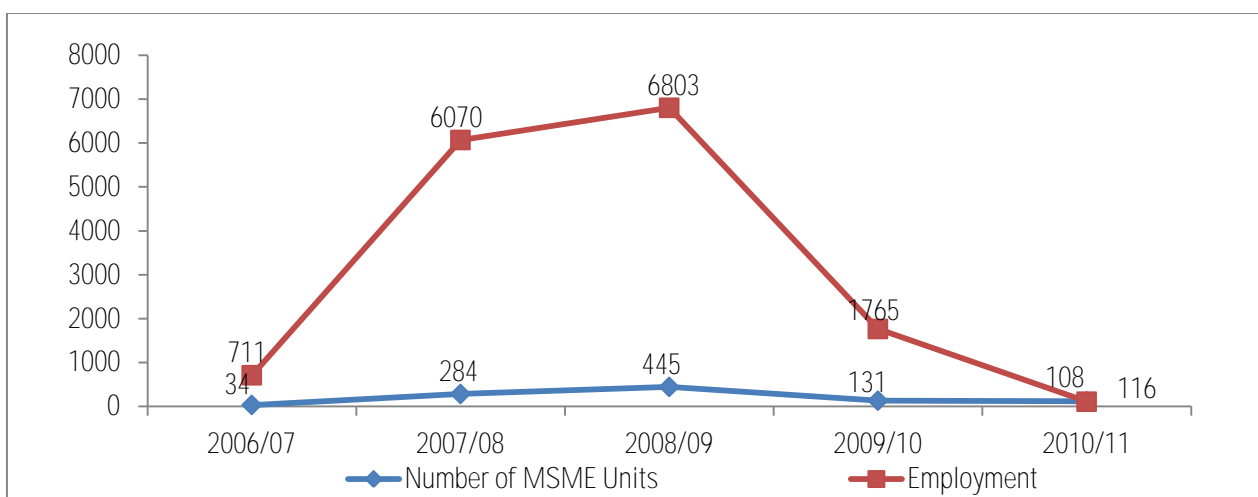
18.21.2.2. Industry

Yamunanagar is very well developed in terms of industry, as compared to other districts. Metal, utensil and plywood industries are the most important in the district. Sugar machinery, paper machinery and equipment for petrochemical plants are important products. Recently, Reliance Industries has set up a thermal power plant in the district.

As per 2011 provisional data, there are 1159 registered Industrial Units in the district employing 1500 workers in the medium and large industries segment⁴⁵⁵.

Between 2006-07 and 2011-12, Medium-Small Scale Industries segment has witnessed exponential growth between 2006 and 2009, and a considerable decline after⁴⁵⁶.

MSME growth trends in the district



Based on discussions with District Industries Center, following potential MSME growth clusters are identified in Jind district.

Existing Clusters	Clusters Identified for Promotion
<ul style="list-style-type: none"> Re-rolling stainless steel, Jagadhiri Stainless Steel and Aluminium Utensils, Jagadhiri 	<ul style="list-style-type: none"> Wooden Furniture Polishing

⁴⁵⁴ http://hau.ernet.in/extension/Yamunanagar_cdap.pdf

⁴⁵⁵ <http://dcmsme.gov.in/dips/yamunana.pdf>

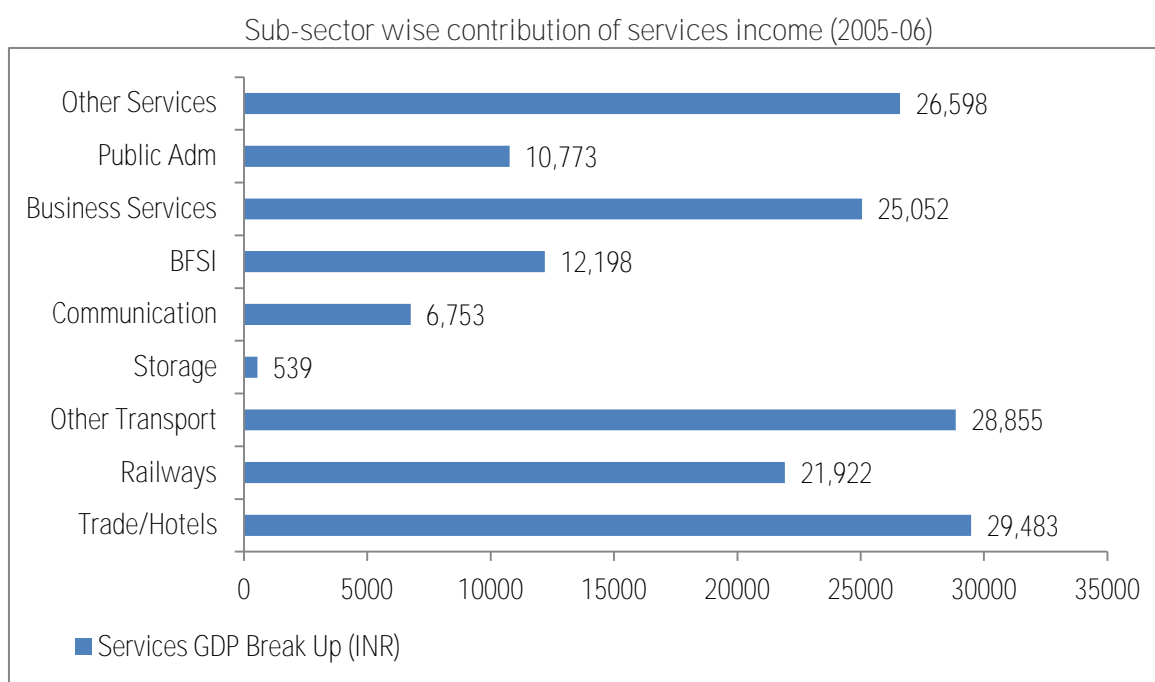
⁴⁵⁶ <http://dcmsme.gov.in/dips/yamunana.pdf>

	<ul style="list-style-type: none"> • Engineering and Fabrication • Plywood
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Source: Primary discussion District Industries Officer, Brief Industrial profile of Yamunagar District, MSME

18.21.2.3. Services Sector

The share of service sector is very high at 40.55 percent⁴⁵⁷ of GDDP in the year 2005-06. Trade/Hotels, other transport, business services and other services are key services activities in Yamunagar as shown in the figure below.



Source: Planning Commission, State Wise District Domestic Product Report

The penetration of healthcare facilities measured in terms of beds per 1,00,000 population is 35 which is lower than the state average of 39.

The district has 18 PHCs and 4 CHCs along with 111 Sub centers⁴⁵⁸. With an ever increasing population and sustained industrial growth the district could witness significant healthcare expenditure over the next decade.

Details of healthcare infrastructure in the district

Category	Number of Institutions
Allopathic Hospitals	4

⁴⁵⁷<http://planningcommission.nic.in/plans/stateplan/index.php?state=ssphdbody.htm>

⁴⁵⁸<http://nrhm-mis.nic.in/UI/RHS/RHS%202011/District-wise%20Health%20Centres.pdf>

Ayurvedic Institutions	18
Unani/Homeopathic Institutions	3
Primary Health Centers (PHCs)	18
Community Health Centers (CHCs)	4
Dispensaries	12
Total	59

Source: Haryana Statistical Abstract 2011-12

Yamunanagar has a higher than average penetration of banking and financial services measured as a percentage of GDDP at 6.36 percent in comparison to state average of 4.16 percent as per 2004-05 estimates. The district has 68 cooperatives per lakh per population in different sectors of industry like sugarcane, milk supply etc. The credit deposit ratio for the district is 60.32 percent which is lower than the state average of 102 percent.

18.21.3. Workforce Distribution in the district

18.21.3.1. Current Employment Scenario in Yamunanagar

The main worker participation rate of 26.95 percent in the district is lower than the state average number of 28.66 percent. Worker participation rates are higher in rural rather than urban areas.

Non agricultural workers account for a majority of the workers in the state accounting for 66.37% of the total population. Agriculture is the major source of employment for only 33.63% of the total working population compared to 51.29 percent average for the state of Haryana⁴⁵⁹.

Female work participation in the district is very low in comparison to male work participation with only 16.71 percent of the working population being females, almost half of that of the state.

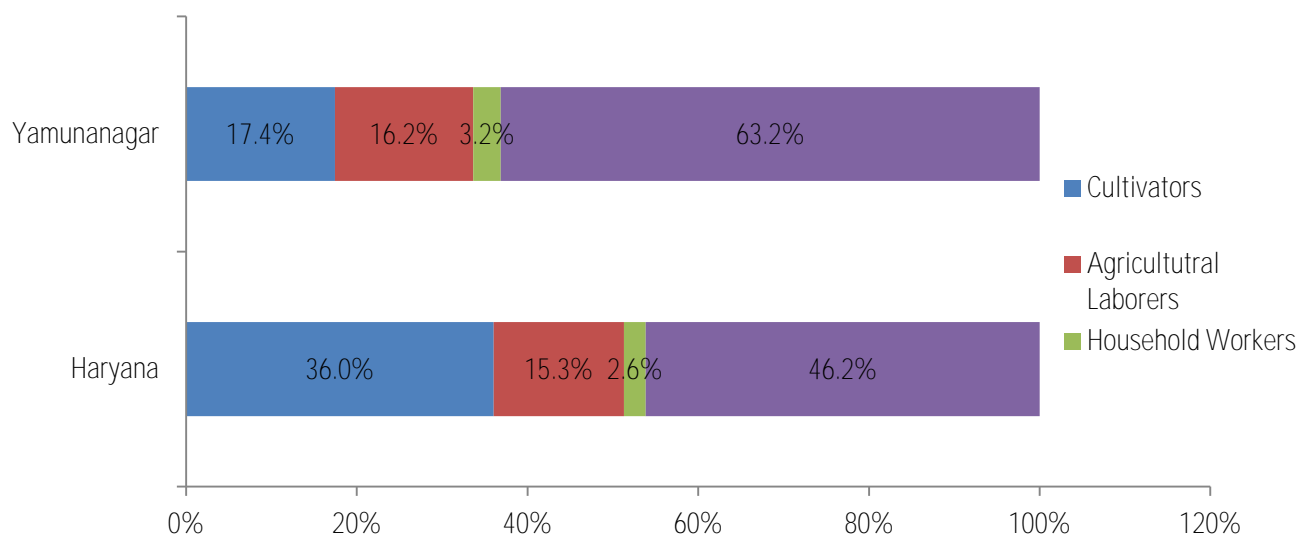
Region	Main Worker Participation	Marginal Worker Participation	Overall Non-Workers	Rural Non-Workers	Urban Non-Workers
Yamunanagar	26.95 %	5.35%	58.08%	35.26%	22.82%
Haryana	28.66 %	10.10 %	50.36 %	33.83 %	16.52 %

Low rate of marginal worker participation indicate non-primary sources of income for a majority of the population.

⁴⁵⁹ [http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract\(2011-12\).pdf](http://esaharyana.gov.in/Data/StateStatisticalAbstract/StatisticalAbstract(2011-12).pdf)

Just above 50 percent of the total working population depends on industry but not all of those employed are engaged in work with registered factories making it difficult to estimate the true extent of employment.

Distribution of Working Population in the district



Cultivators and agricultural laborers make up a minority of the workforce, dissimilar to the general trend for the state. Industries provide a major source of employment for the district and so do household industries, both of which have rates of participation that are higher than the state average.

18.1.4.41. Estimation of Supply of Manpower in the District

District wise incremental supply estimates were arrived at, based on Planning Commission Population Estimates from 2001 population considering birth rate, death rate and life expectancy normalized against population corrections in 2011.

State/ District	Labour Force Supply (2012-17)			Labour Force Supply (2017-22)		
	Gross Addition to Working Age Population	Gross Addition to Labour Force	Net Addition to Labour Force-Supply	Gross Addition to Working Age Population	Gross Addition to Labour Force	Net Addition to Labour Force-Supply
Haryana	2,648,032	1,273,703	727,206	2,421,060	1,164,530	496,173
Yamunanagar	126,827	59,283	33,847	115,956	54,201	23,094

Source: KPMG Analysis

18.1.4.42. Incremental Supply of Labour force in the District

District wise incremental supply estimates were arrived at based on Planning Commission Population Estimates from 2001 population considering birth rate, death rate and life expectancy normalized against population corrections in 2011.

Region	Supply 2012-17			Supply 2017-22		
	Skilled	Semi - Skilled	Minimally Skilled	Skilled	Semi-Skilled	Minimally skilled
Yamunanagar	10,420	4,372	19,055	7,110	2,983	13,001
Haryana	195,716	75,683	455,808	133,537	51,638	310,998

Source: KPMG Analysis

18.20.5.1. Incremental Manpower Requirement in the District

Incremental manpower requirement in the district of district has been estimated based on several parameters such as investments into various sectors in the district for the past 10 years, national level benchmarks on industrial growth across sectors, national inclusion targets for sectors such as banking and healthcare, employment generation potential of various sectors based on labour elasticity and market based insights from discussions with industries in district.

Sector wise skill level requirements during 2012-22

Sub Sectors	Yamunanagar					
	2012-17			2017-22		
	Skilled	Semi-skilled	Unskilled	Skilled	Semi-skilled	Unskilled
Agriculture & Allied Activities	-	-	(1,577)	-	-	(1,550)
Banking and Financial Services	564	1,691	-	577	1,732	-
Beverages	46	184	230	60	239	298
Communication						

	414	1,241	-	421	1,263	-
Construction	523	1,046	8,889	465	931	7,913
Construction Based Material	304	1,214	1,518	370	1,481	1,851
Education and Training	273	1,841	-	74	496	-
Fabricated metal products	108	434	542	105	421	527
Healthcare	619	2,476	-	653	2,611	-
Hospitality	56	85	423	51	76	381
Manufacturing of Engineering Products	42	168	210	48	193	242
Paper & Paper Products	32	129	161	37	148	185
Retail	2,599	2,599	20,790	2,328	2,328	18,623
Transportations and Logistics	589	9,348	11,121	729	11,574	13,771
Total	6,214	22,633	42,556	5,973	23,709	42,541

Please note that only the industries with significant manpower demand have been individually highlighted in the table.
Source: KPMG Analysis

Skill requirements in key growth sectors have been analyzed based on industry interactions to understand the detailed manpower needs. Sector level skill interventions are indicated in the section below⁴⁶⁰.

- Transportation and Logistics

Category of Skills	Skills
--------------------	--------

⁴⁶⁰ KPMG Analysis

Core Skills	Heavy vehicle drivers, logistics management
Allied Skills	Administrative, computer data management
Skills with acute shortage	Scheduling and logistics planning

- Banking and Financial

Category of Skills	Skills
Core Skills	Knowledge on core banking/mobile/internet platforms
Allied Skills	Sales and Marketing
Skills with acute shortage	Insurance underwriting, claims management

- Organized Retail

Category of Skills	Skills
Core Skills	Shop floor executives/supervisors, computer operator
Allied Skills	Transportation & logistics staff
Skills with acute shortage	Store management, stock planning

- Healthcare

Category of Skills	Skills
Core Skills	MBBS Doctors, MD/MS specialists, Physician Assistants/Compounders, Radiologists, Dialysis technician, Respiratory technician and OT Assistants & Perfusionist.
Allied Skills	Lab technicians, pharmacists
Skills with acute shortage	Physiotherapists, Biomedical Instrumentation technicians

- Education

Category of Skills	Skills
Core Skills	School teachers, higher education faculty
Allied Skills	Knowledge on advanced teaching tools
Skills with acute shortage	Technical education trainers

18.21.4. Human Resource Development in the District

18.21.4.1. Current State of Workforce Development

Yamunanagar is home to a number of institutes of higher education, most of which are focused around education and engineering. Yamunanagar has as many as forty six colleges, but only one which is managed by the government. Eight colleges are aided by the government and thirty seven are unaided and privately managed.

Comparison of higher education infrastructure in Yamunanagar with Haryana

Category of College	Haryana	Yamunanagar
Arts, Science and Commerce	192	6
Engineering/Technology/Architecture	168	11
Medical (Allopathy/Dentistry/Homeopathy)	27	-
Education/Teacher training	472	16
Law	11	-
Others	17	13
Total	887	46

Source: Haryana Comprehensive Statistics 2011-12

Due to the presence of many industries, the district has a number of institutes with sufficient vocational education capacity in industry specific skills such as welding and cutting. The district also has three education centres which impart training in computer applications, web design, animation and web publishing. The penetration of vocational institutes is higher than the state average, with 2.62 seats per thousand population.

Details of vocational education infrastructure in Yamunanagar

District Wise ITI/ITC Infrastructure (2011) ⁴⁶¹							
	Number			Sanctioned Intake			Density (Seats per Thousand Population)
Region	Govt ITI	Private ITI	Total	Govt ITI	Private ITI	Total	
Haryana	131	94	225	39140	12804	51944	2.05
Yamunanagar	3	4	7	1520	1664	3184	2.62

Source: Department of Industrial training and Vocational Education, Haryana

The ITI Yamunanagar offers a wide spectrum of 28 courses including Carpentry, COPA, Cutting & Sewing, Draughtsmen Civil, Draughtsmen Mechanical, Dress Making, Electrician, Electronics Mechanic, Electroplater, Embroidery & Needle Work, Fitter, Machinist, Mechanic Computer Hardware, MCOECS, Mechanic Machine Tool Maintenance, Mechanic Motor Vehicle, Mechanic Refrigeration & AC, Mechanic Tractor, Foundryman, Painter General, Pattern Maker, Plastic Processing Operator, Plumber, Stenography English, Tool and Die Maker, Tuner Welder and Wireman. Other government ITIs in the district offers a subset of these courses.

18.21.4.2. Youth Interaction Outcomes

The youth in the district of Yamunanagar exhibited a high preference towards employment over entrepreneurship. Several factors such as poor financial capacity, work environment and socio-cultural factors seemed to influence youth preferences towards employment. Within employment, there was higher inclination towards government jobs over private sector jobs.

In terms of choice of education, there is a poor perception of vocational training and it remains as one of least preferred option. Students from weaker sections of the society, both economically and socially, are seen to opt for vocational courses over higher education programs primarily due to financial constraints.

The students also exhibited willingness to migrate within the state, in regions of Faridabad, Manesar and Gurgaon. However, the entry level salary expectations were upwards of INR 10,000 per month.

Source: Primary Discussion with local youth, ITI student and village sarpanchs

18.21.4.3. Other Skill Mapping and Developmental Concerns

⁴⁶¹ <http://itiharyana.gov.in/>

In addition, to the utensils and plywood industry within the district, Engineering and Fabrication is also picking up in the district. These industries are facing huge shortage of skilled and semi –skilled manpower within the district. Paper and sugar mills are present in the district. The district also boasts of sugar mills with largest crushing capacity in the entire country.

18.21.4.4. Incremental Training Capacity in the District through Government Endowments

According to KPMG estimates, based on the potential district budgetary allocation for various central government schemes, around 29 thousand people in total can be trained incrementally during the five year period of 2012-17. Ministry of Agriculture has significant training mandates in the district.

Potential Training Capacity in the district through Government Endowments (2012-17)



Source: KPMG Analysis, Training Plans as per various Ministries/ Departments / Organizations

18.21.5. District Specific Recommendations

Stakeholder	Action Points
NSDC	<p>Creating a favorable and positive skill environment in the district</p> <p>A majority of youth in the district continue to perceive 'skill acquisition' poorly and consider enrolling in an ITI/ITC in the region as a last resort.</p> <p>Awareness campaigns about benefit of acquiring vocational education at the village level in collaboration with NGOs and Community based organizations.</p>

	<p>Identify high-performing and motivated students and provide scholarships for higher education.</p> <p>Formal certifications for informally acquired skills A large number of people in the district are seen to be engaged in informal / micro /small scale sectors in who have acquired their skills informally. The key areas of informal sector where workforce is engaged are Sheet Fabrication, Agro Based etc. Targeted training interventions to be developed to upskill and certify those engaged in these areas They key small scale industries in the state are Repair and Servicing, Engineering Units, Agro Based, and wood / wooden. In absence of formally certified skills, these labours tend to earn lower wages. Targeted training interventions to be developed to upskill and certify those engaged in these areas"</p>
Skill Development Training Providers	<p>Focus on soft skill training to students</p> <p>Attitude and professional conducts remains a major challenge amongst local youth. Targeted training modules for soft skills to be developed and imparted to students. Facilitate camps to address behavioural and professional issue amongst students.</p> <p>Introduction of industry relevant skills with focus on placements</p> <p>A significant share of industries located in Yamunanagar is of Plywood. However, the local skill training institutes do not cater to relevant courses for these units. Relevant courses/modules aimed at textile industry like machine operators etc should be developed"</p>
Industry	<p>Short-term courses</p> <p>For less skill intensive jobs in sectors such as food processing and construction, which have shown steady growth in the district, industry may up-skill existing workers and skill potential candidates through partnerships with local NGOs or training providers.</p> <p>The industry can partner with local NGOs and training providers to engage in community outreach to raise awareness about skill development and Offer short-term training courses to equip students with the basic skills required for the industry.</p> <p>Strengthen the apprenticeship programs The students exhibited low motivation to participate in apprenticeship program as they felt that the trainings were non effective. A structured and effective training program for students should be developed by the industry. Relevant training should be provided to the students based on the student education. Also, regular feedback should be collected from the students and employees during the course of training</p>
District Administration	<p>Generate awareness about Skill Training at school level</p> <p>Vocational education within the district was unable to attract substantial number of students due to poor perception of quality and relevance. It was indicated that polytechnic diplomas are often seen as a means to gain entry into engineering colleges, and not used for their intended purpose.</p>

The district administration could begin by generating awareness about the skill development at school level itself. The students should be exposed to vocational education through presentations, vocational education since grade 8 onwards. Certain basic subjects covered in vocational training could be offered to the interested students.

18 Glossary

Abbreviation	Explanation of abbreviated terms
HSIIDC	Haryana State Industrial Infrastructure Development Corporation
BDO	Block Development Officer
BRGF	Backward Region Grant Fund
Build. Const. Real Est.	Building, Construction, Real Estate
CAGR	Compound Annual Growth Rate
Capex	Capital Expenditure
CEO	Chief Executive Officer
CII	Confederation of Indian Industry
CMIE	Centre for Monitoring Indian Economy
CoE	Centre for Excellence
COPA	Computer Operator and Programming Assistant
CSC	Common Service Centre
DAO	District Agriculture Office
DIC	Department of Industries and Commerce
DRDA	District Rural Development Agency
DUDA	District Urban Development Agency
FGD	Focus Group Discussion
FMCG	Fast Moving Consumer Goods
FY	Financial Year
GDDP	Gross District Domestic Product
GDP	Gross Domestic Product

GoH	Government of Haryana
GSDP	Gross State Domestic Product
HDI	Human Development Index
HR	Human Resource
HUPA	Housing and Urban Poverty Alleviation
ICT	Information and Communication Technologies
IFFCO	Indian Farmers Fertilizer Cooperative Limited
IOC	Indian Oil Corporation
IT	Information Technology
ITC	Industrial Training Centre
ITeS	Information Technology Enabled Services
ITI	Industrial Training Institute
Kg	Kilogram
Km	Kilometre
L&T	Larsen and Toubro
LPG	Liquefied Petroleum Gas
M. Tech	Master of Technology
MBA	Master of Business Administration
MBBS	Bachelor of Medicine Bachelor of Surgery
MCA	Master of Computer Application
mfp	Minor forest produce
MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act
mm	Milimetre

MoU	Memorandum of Understanding
MSME	Micro, Small and Medium Enterprises
MT	Metric Tonnes
MW	Mega Watt
NAC	National Academy of Construction
NGO	Non Government Organization
NH	National Highway
no.	Number
NSDC	National Skill Development Corporation
NSS	National Service Scheme
NTFP	Non Timber Forest Products
OBC	Other Backward Castes
p.m.	per month
PHC	Public Health Centre
PPP	Public Private Partnership
PVC	PolyVinyl Chloride
RKVY	Rastriya Krishi Vikas Yojana
RSETI	Rural self employment training institute
RTE	Right to Education
RYK	Rajiv Yuva Kiranalu
SC	Scheduled Caste
SC	Scheduled Caste
SEZ	Special Economic Zone

SHG	Self Help Group
SJSY	Swarn Jayanti Swarojgar Yojna
SME	Small and Medium Enterprises
sq	Square
SSI	Small Scale Industry
ST	Scheduled Tribe
ST	Scheduled Tribe
TV	Television
VT	Vocational Training
VTP	Vocational Training Provider



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