



# Skilling for the Future

Skill Gap Assessment & Action Plan for Tamil Nadu

## District Skill Development Plan for Coimbatore

November 2019



**Tamil Nadu Skill Development Corporation,**  
Integrated Employment Offices Campus (1st Floor)  
Thiru. Vi .Ka Industrial Estate,  
Guindy, Chennai-600 032



**Tamil Nadu Skill Development Corporation (TNSDC)  
Integrated Employment Offices Campus (1st Floor)**

Thiru. Vi .Ka Industrial Estate,  
Guindy, Chennai-600 032

T +044 2250 0107

E dettnsdm@gmail.com

W <https://www.tnskill.tn.gov.in>

Published by

TNSDC, Chennai

**Disclaimer**

The Report includes projections, forecasts and other predictive statements which are based on assumptions and expectations in the light of currently available information. These projections and forecasts are based on industry trends, circumstances and factors which involve risks, variables and uncertainties. TNSDC disclaims all warranties as to the accuracy, completeness or adequacy of such information. TNSDC and/or its Affiliates and its officers, directors and employees including the analysts/authors/advisors shall not be in any way responsible for any direct, indirect, special or consequential damages that may arise to any person from any inadvertent error in the information or judgement or opinion contained in the report nor do they take guarantee or assume liability for any omissions of the information contained therein. The projections and forecasts described in this report should be evaluated keeping in mind the fact that these are not scientifically proven to guarantee certain intended results and are not published as a warranty and do not carry any evidentiary value. Opinions expressed therein are current opinion as of the date appearing on the report only. Data may be subject to update and correction without notice. Every effort has been made to trace the owners of the copyright material included in this Report. The material in this publication is copyrighted. Reproduction or dissemination, directly or indirectly, either on paper or on electronic media, of the research data and report in any form is prohibited except with the written permission of TNSDC. The user should consult their own advisors before making use of any information or data contained in the report. The publishers would be grateful for any omissions brought to their notice for acknowledgement in future editions of the report.



# ***Acknowledgement***

We extend our thanks to district officials of Coimbatore, youth, employers, industrial associations and training service providers who participated in focus group discussions and surveys, for their support in conducting research and drafting this report.



# Table of Contents

<b>Acknowledgement .....</b>	<b>5</b>
<b>Executive Summary.....</b>	<b>11</b>
<b>1. District Profile .....</b>	<b>17</b>
1.1. Demographic Profile.....	17
1.2. Economic Profile .....	18
1.2.1. Sector wise Analysis.....	19
1.2.2. Investments and key economic drivers .....	22
1.3. Labour Market Profile .....	24
1.4. Education and Skill Development Profile .....	25
1.4.1. Education Profile .....	25
1.4.2. Vocational Education Profile.....	26
<b>2. Youth Perspectives .....</b>	<b>33</b>
2.1. Profile of Respondent Youth .....	33
2.2. Respondent Current Status .....	34
2.3. Economic Engagement of Youth .....	34
2.4. Youth under NEET Category .....	37
2.5. Youth Career Aspiration .....	37
2.6. Skill Training Preferences of Youth.....	41
<b>3. Employers' and Other Stakeholders' Perspectives .....</b>	<b>43</b>
3.1. Employers' Perspective.....	43
3.2. Stakeholders Perspective .....	47
<b>4. Skill Gap Analysis.....</b>	<b>49</b>
<b>5. Key Study Findings and Recommendations .....</b>	<b>595.4</b>

# List of Tables

Table 1: Key Demographic Indicators– Coimbatore vs Tamil Nadu .....	17
Table 2 Sector wise- Annual Growth Rate in Coimbatore.....	19
Table 3 Profile of Manufacturing Sector from ASI .....	20
Table 4 Existing Industrial Estate & Plants.....	21
Table 5 LFPR and Unemployment Rate by Sex & Location .....	24
Table 6 Primary Education Profile - DISE .....	25
Table 7 Institutions of Higher Education in Coimbatore District .....	26
Table 8 Vocational Training under Short Term Skill Development Programs.....	26
Table 9 Vocational Training under Long Term Skill Development Programs (ITI).....	30
Table 10 Education Qualification of Respondents and Employment Type .....	35
Table 11 NEET Category Respondents .....	37
Table 12 Career Aspiration - Factors, Preparedness and Availability of Jobs .....	38
Table 13 Career Aspiration – Challenges in pursuing desired career.....	38
Table 14 Key Requirements to enhance employability and steps to achieve aspirations .....	39
Table 15 Sectors aspired by respondents .....	39
Table 16 Aspired monthly salary of respondents .....	40
Table 17 Importance of different aspects of Skill Development .....	41
Table 18 Sector wise coverage of Industries in Employer Survey .....	43
Table 19 Modes and Challenges in Recruitment Process .....	43
Table 20 Sources of Migrant workers.....	44
Table 21 Growth Prospects and prospective adoption of technology .....	45
Table 22 Demand for workers by Skill Level and type of training provided to workers.....	45
Table 23 Knowledge of Skill Development programs and Challenges .....	45
Table 24 Sector wise Incremental Demand for Skilled and Semi-Skilled Workers 2019-25.....	49
Table 25 Credit Outstanding by Occupation - RBI .....	71



# List of Figures

Figure 1 Age-wise Population Pyramid of Coimbatore (2011 vs 2026) .....	18
Figure 2 Key Economic Indicators of Coimbatore District .....	19
Figure 3 Sectoral Share of GVA .....	19
Figure 4 Share of GVA by Industry of Origin (2016-17) .....	19
Figure 5 GVA of Agri and Allied Sectors (2016-17) .....	19
Figure 6 Crops by Share of Cultivated Area <sup>8</sup> .....	20
Figure 7 Industrial Sector GVA (2016-17) .....	20
Figure 8 GVA of Services Sector (2016-17) .....	21
Figure 9 Sector-wise growth of Credit off Take (2013-14 to 2015-16) - RBI .....	22
Figure 10 Key Labour Market Indicators .....	24
Figure 11 Distribution of Working status by Qualification .....	24
Figure 12 Sector-wise share of Employment .....	25
Figure 13 GER and Drop-out Rates - DISE .....	25
Figure 14 Population Undergone Vocational Training - EUS 2015-16 .....	31
Figure 15 Respondent Profile of Youth Aspiration Survey .....	33
Figure 16 Current Status of Respondent by Sex .....	34
Figure 17 Current Status of Respondent by Age Category .....	34
Figure 18 Work Profile of Respondents .....	34
Figure 19 Distribution of Respondents across Monthly Income Category across Sex .....	35
Figure 20 Distribution of respondents across Monthly Income Categories by Education Level .....	35
Figure 21 Career Aspiration of Youth .....	37
Figure 22 Preference for Work Location .....	40
Figure 23 Sources for Job Information .....	40
Figure 24 Perception on Counselling Services .....	40
Figure 25 Key requirements from career counselling .....	41
Figure 26 Skill Training type interested in .....	41
Figure 27 Skill Training Full-time vs Part-Time .....	41
Figure 28 Distribution of Industries by Size .....	43
Figure 29 Average distribution of workers by Sex .....	44
Figure 30 Distribution of workers by Skill Levels .....	44
Figure 31 Key causes of Attrition .....	44
Figure 32 Interest in working with the Govt. on Skill Development) .....	46
Figure 33 Map of Selected Blocks .....	68
Figure 34 Steps for Demand Estimation .....	69
Figure 35 Steps for Supply Estimation .....	70

# List of Abbreviations

S.No	Abbreviation	Expanded Form
1.	ASER	Annual Status of Education Report
2.	ASI	Annual Survey of Industries
3.	BFSI	Banking Financial Services and Insurance Sector
4.	BPL	Below Poverty Line
5.	CODISSIA	Coimbatore District Small Industries Association
6.	DC MSME	Development Commissioner, Ministry of Medium, Small and Micro Enterprises
7.	DDU-SKY	Deen Dayal Upadhyaya Grameen Kaushalya Yojana
8.	DES	Directorate of Economics and Statistics
9.	DIC	District Industries Centre
10.	DISE	District Information System for Education
11.	GCC	Gulf Cooperation Council
12.	GDDP	Gross District Domestic Product
13.	GoTN	Govt. of Tamil Nadu
14.	GSDP	Gross State Domestic Product
15.	GSVA / GVA	Gross State Value Added / Gross Value Added
16.	ITI	Industrial Training Institute
17.	IT-ITES	Information Technology and Information Technology Enabled Services
18.	LFPR	Labour Force Participation Rate
19.	Manuf.	Manufacturing
20.	NEET	Not in Education, Employment or Training
21.	NIC	National Industrial Classification, 2008
22.	NSDA	National Skill Development Agency
23.	NSDC	National Skill Development Corporation
24.	NSQF	National Skills Qualification Framework
25.	NULM	National Urban Livelihood Mission
26.	PMKVY	Pradhan Mantri Kaushal Vikas Yojana
27.	PSU	Public Sector Undertaking
28.	Pub. Admin.	Public Administration (GDP Sector)
29.	QP-NOS	Qualification Pack – National Occupational Standards
30.	SIMA	Southern India Mills Association
31.	SIPCOT	State Industries Promotion Corporation of Tamil Nadu
32.	SITRA	South India Textile Research Association
33.	SSC	Sector Skill Council
34.	TANSIDCO	Tamil Nadu Small Industries Development Corporation
35.	TEF	Texpreneur's Federation
36.	TIDCO	Tamil Nadu Industrial Development Corporation
37.	TN	Tamil Nadu
38.	TN-GIM	Tamil Nadu Global Investors Meet
39.	TNSDC	Tamil Nadu Skill Development Corporation
40.	TNWDC	Tamil Nadu Women Development Corporation, the implementing agency of the Tamil Nadu State Rural Livelihood Mission
41.	Tr. & Tou.	Trade and Tourism Sectors ( GDP Sector)
42.	W / S Emp.	Wage or Salary Employment
43.	WPR	Worker Population Ratio

# Executive Summary

**Background:** The Vision 2023 of Tamil Nadu envisages shaping its future by empowering the youth in the state, through imparting market relevant skill training; to become responsible and participating citizens who drive a new era of development, growth, and productivity. Tamil Nadu has formulated a State Youth Policy, which aims at reinforcing and accomplishing the broader objectives of 'Vision Tamil Nadu 2023'. The policy focuses on upgrading the human capital of the state by building on the intellectual and creative potential of youth in various fields, thereby transforming Tamil Nadu into the innovation hub and knowledge capital of India. It also aims at enabling Tamil Nadu to collaborate with other States in the country and the rest of the world on multiple dimensions: increasing the flow of workforce and goods/services, enhancing the levels of exchange of ideas and culture, and facilitating the movement of people to and from Tamil Nadu for opportunities. To attain this objective the State envisages training and skilling of 20 million persons by 2023<sup>1</sup>.

Tamil Nadu currently has the highest Gross Enrolment Ratio in Higher Education (48.6)<sup>2</sup>, among all the states in India. The state faces a mandate of developing and maintaining high quality human resources to deal with the evolving economy, and ensuring social justice in the form of decent employment for its educated populace. Thus, it is essential to carefully analyse the industry demand, investment patterns, youth aspirations and re-align policy/programmatic initiatives in that direction. Thus, taking youth aspiration and industry growth potential is critical to be able to avoid labour demand-supply mismatch, and support overall development of the State.

**Context for Present Study:** In 2012, The National Skill Development Corporation commissioned a skill-gap assessment study for Tamil Nadu. The study covered 12 Districts, based on which an extrapolation was done for the remaining Districts. The study adopted a mix of secondary and primary research and relied largely on focus group discussions with various stakeholder groups such as youth, employers, industry associations, government officials, and skill training providers. Skill gaps were estimated for a period of 10 years, up to FY 2022. Given the rapid change in the state's social and economic context, there was a need for a fresh assessment of the State's skill ecosystem. There is also a need to understand the needs of the youth from diverse geographical backgrounds across the State, especially reaching out to economically backward regions. It is expected that a contemporary estimation, using both quantitative and qualitative analysis would reveal relevant insights and findings related to the demographic profile, socio-economic characteristics of the youth, emerging sectors and job roles, and the skill-sets in demand.

**The Present Study:** The Tamil Nadu Skill Development Corporation (TNSDC) has, through a competitive procurement process engaged PricewaterhouseCoopers Private Limited (PwC) to carry out "Skill Gap Assessment Study and Skill Development Action Plan for Tamil Nadu". This is the first time such a comprehensive State-wide study taking into consideration 6 blocks from each District has been attempted in Tamil Nadu. The study aims at identifying sources for self and wage employment in all 32 Districts, estimating the sector-wise current and future labour demand (over the next six years) by industry, and assessing the overall the labour supply and estimating the existing and emerging skill gaps.

The Skill-Gap Assessment study offers insights into: (i) which skills are required to support the State's economic growth, while also catering to the career aspirations of the youth; and (ii) how to design appropriate interventions that will enable active collaboration between various stakeholders for the common good. Workforce demand-projection for the upcoming years, disaggregated as skilled and semi-skilled workforce requirement has been estimated at the District level.

**Methodology for Study:** Mixed-method research design is adopted encompassing a blend of quantitative and qualitative data collection techniques, and desk research on secondary data sources. Structured into two phases, the first phase of the study comprised a comprehensive desk review of the State's demography, economy, labour market, educational and skill development profile. The second phase of the study comprised the following:

1. **Youth aspiration survey:** a quantitative survey covering 360 youth in each District across the following groups – engaged in economic activity (self-employed, wage-employed, entrepreneurs), students in formal education, vocational and skill training institutions (Polytechnics, ITI), and those who fall under the Not in Education, Employment or Training (NEET) category. Six blocks in the District were

---

<sup>1</sup> Tamil Nadu Skill Development Corporation [<https://www.tnskill.tn.gov.in/index.php/link/abouttnsdc>]

<sup>2</sup> All India Survey on Higher Education 2017-18

covered viz. Madukkarai, Sultanpet, Periyamayakkanpalayam, Sarcarsamakulam, Sulur, and Thondamuthur



**2. Quantitative employer survey:** covering 45 units in the District with adequate representation from Large, Medium, Small and Micro Industries across the key sectors defining the District economy.




**3. Focus Group Discussions (FGD's)** and stakeholder consultations across a wide group of stakeholders including, representatives from Industrial units (with additional focus on MSME sector), District-level Industry Associations across priority sectors, officials from various government departments, representatives from various higher education institutions, and training service providers. In all, interactions with more than 20 stakeholders have been conducted across the District.



Estimation of labour demand and supply were undertaken based on analysis of data from, the Census of India, State and District Gross Domestic Product from the Department of Economics and Statistics of Government of Tamil Nadu, data from the Reserve Bank of India and Reports from the National Sample Survey and the Bureau of Labour and Employment. Estimates were further refined based on data on investments, and developments in key sectors, including due consideration to emerging sectors and job roles. The sectors and job roles in demand have been organized into training projects, which are informed by the demand estimations, quantitative survey findings and qualitative consultations. Budgets have been estimated based on the cost categories as defined in the Common Cost Norms released by the Ministry of Skill Development and Entrepreneurship, Government of India.

### Key Findings:

Key findings of the study are:

Key Findings	
 <b>Demographic Analysis</b>	<ul style="list-style-type: none"> <li>At 31 years, the median age of Coimbatore is higher than the state average. It is expected to increase further to 37 years by 2026, indicating an aging population.</li> <li>This Aging population could drive demand for palliative care.</li> <li>Driven by the expansion of Coimbatore city, Urban population grew by 28% while the rural population saw a fall between 2001 and 2011.</li> </ul>
	 <b>Economic Analysis</b>
	<ul style="list-style-type: none"> <li>Coimbatore is a major economic centre, contributing to 7% of the state GDP.</li> <li>It ranks 6<sup>th</sup> in GDDP per Capita at ₹ 1,73,975 and 2<sup>nd</sup> in disposable income per household at ₹5.12 Lakhs per annum</li> <li>Coimbatore has witnessed 10% growth per annum since 2011-12, largely driven by the Industrial Sector.</li> </ul>
	<b>Agriculture Sector:</b> <ul style="list-style-type: none"> <li>The Western districts of Tamil Nadu house 50% of the states poultry stock and the region is a national leader in export of meat products.</li> <li>The urbanisation and industrialisation of the District has made cultivation less lucrative as a source of employment. Livestock in recent times has emerged as an alternative source of livelihood.</li> </ul>
	<b>Industrial Sector</b> <ul style="list-style-type: none"> <li>Industrial sector has grown at 16% per annum. since 2011-12 and expected to grow by 35% in the coming 3-5 years.</li> <li>Textiles, Wet Grinders, Motor &amp; Pumps, Auto and Auto Components, Metal &amp; Foundry, Jewellery, Engineering are the key manufacturing industries.</li> <li>The industries in the district are labour intensive and provide opportunities for employment for skilled workers.</li> </ul>
	<b>Services Sector</b> <ul style="list-style-type: none"> <li>Services grew at 6% per annum since 2011-12 driven by the logistics, trade and tourism.</li> <li>Coimbatore is the gateway to the interstate trade between Tamil Nadu, Kerala and Southern Karnataka apart from being a logistic hub for Western Tamil Nadu.</li> <li>Key growth in IT-ITES sector with presence of TIDEL Park, ELCOT</li> <li>Coimbatore is a gateway to tourism in Nilgiris, Idukki, and central Kerala.</li> </ul>

Key Findings	
 <b>Labour Market Analysis</b>	<ul style="list-style-type: none"> <li>• Highly Formalised workforce with 43% of the labour force in 'Salaried / Wage Employment'.</li> <li>• 36% of the workforce employed in manufacturing sector, only 14% in agriculture.</li> </ul>
 <b>Education &amp; Skill Development</b>	<ul style="list-style-type: none"> <li>• High Gross Enrolment rates (indicating enrolment of students from other Districts) and low drop-out rates.</li> <li>• High proliferation of private school education.</li> <li>• Over 10,000 seats per annum, each in engineering, and arts and science programs.</li> <li>• Vocational education in ITIs require upgradation in terms of technical equipment and exposure to work environment</li> <li>• Though the Skill Development programs offer a wide set of courses across key sectors, they largely cater to jobs with entry level skills.</li> </ul>
Findings from Primary Interactions	
 <b>Youth Profile and Aspirations</b>	<ul style="list-style-type: none"> <li>• Not in Education, Employment or Training (NEET) category respondents were largely female and generally belonged to age category of 20-29 years.</li> <li>• 32% of the respondents youth ever in economic activity were working in a field unrelated to their education / training</li> <li>• 37% of the respondents who had completed a higher secondary level of education had been engaged in unskilled work, the highest among all categories.</li> <li>• 74% of the NEET category respondents wished to work at some point in the future</li> <li>• Only 8% of the youth wanted employment in the Public Sector.</li> <li>• 'Social status', 'salary (wages) / income', 'job security' were key determinants of selection of work.</li> <li>• 'Pressure related to getting married', 'unsafe working environment', 'lack of jobs locally' were identified as major challenges in pursuing desired careers.</li> <li>• 'Relevant work experience', 'soft skills', and 'certification of technical skills' were identified as key factors of employability</li> <li>• 'Automobile and Autocomponents', 'Food Processing' and 'Iron &amp; Steel' were sectors were aspired for.</li> <li>• Median Income expectation among youth was around ₹15,000 with 43% respondents expecting an income greater than ₹20,000</li> <li>• 31% of the respondents were open to taking up vocational training.</li> <li>• Youth would like greater availability of information on the labour market and better counselling services from the local training / employment centers.</li> </ul>

Key Findings	
 <p><b>Employer &amp; Other Key Stake holder Perspective</b></p>	<ul style="list-style-type: none"> <li>• 2/3rds of the employers recruit through references, only 11% recruit from vocational courses</li> <li>• 'High local wages', 'lack of requisite core skills', 'lack of work experience' are the major challenges in recruitment of workforce</li> <li>• 'Major soft skills' required are 'communication skills', 'professionalism', 'flexibility' and 'interpersonal skills'</li> <li>• High attrition rates are witnessed, due to perceived safety and security issues in employment apart from availability of better opportunities</li> <li>• Manufacturers perceive a high preference was towards service sector jobs in IT/ITES, BFSI, Logistics including 'Gig- economy' jobs</li> <li>• Majority of the industries source workers from other Districts of the state / other parts of India to meet the local requirements. Some large industries are considering shifting investments to the southern Districts.</li> <li>• Southern Districts of TN, Central India, Northern and Eastern India were major sources for immigrant workers. It is estimated that 4 – 6 lakh migrant workers are employed in the western belt of the state.</li> <li>• 'English Communication' was a major challenge in the services sector</li> <li>• Though manufacturers are investing in technological upgradation, they aren't heavily into automation of production.</li> <li>• Key challenges in recruiting from vocational programs was the skills mismatch of the respondents and their lack of experience in working environment.</li> <li>• Though Industries are willing to partner the Govt. in Skill Development and vocational initiatives, rationalisation of processes was urgently required in apprenticeship and short term skill development programs.</li> </ul>
 <p><b>Incremental Demand</b></p>	<ul style="list-style-type: none"> <li>• Nearly 2 Lakh additional skilled and semi-skilled workers are expected to be in demand over the next 6 years.</li> <li>• Key sub-sectors driving the demand are Manufacturing, Construction and Logistics, Allied sectors of agriculture, Tourism &amp; Hospitality.</li> <li>• Other Services under which IT-ITES, Healthcare fall under are also expected to drive the major source for skilled demand.</li> </ul>

### Key Recommendations:

1. **Convergence:** Convergence and coordination is required between various departments of the Government especially between the Training & Employment wings of the Dept. of Labour, Employment and Training, the District industries Centre, other line Departments implementing skill development including the RURBAN Mission which is implementing both the DDU-GKY and the NULM scheme in the state. This coordination would help in appropriate provision of trades, avoidance of duplication of both trainings and candidates, and a uniform quality assurance regime. There is a requirement for a Labour Market Information System (LMIS), which can be used to ensure a better participation between Industry, job Seekers and the vocational education system.
2. **Industry Engagement:** There is considerable awareness and acceptance of skill development programs among industries in the District. Innovation and reforms in terms of input requirements (capital / turn over, class room infrastructure), stipend support, and program management are required to provide industries with greater incentives to promote skill development. Industries need to create a positive image about the work environment, especially in the manufacturing sector. There is a worry among youth on the safety and work environment (treatment of workers, professionalism, transport, toilet facilities etc.) of Industries and there is an urgent requirement for branding the industries as attractive places to work.
3. **Market linked Trainings (including for global markets):** The job markets of the entire region from Ernakulam till Erode are accessible to the District's labour force and they commute on a daily / weekly

basis for work. Thus, the skills need to cater to the extended economic region and not only to the local market. The District ranks second in number of emigrants in the State and indicative of the local population consistently seeking economic opportunities beyond the District boundaries. Hence the trainings should also cater to the changing requirements of the international markets, especially in the GCC countries which are seeing a rapid change in labour demand.

The higher levels of education attainment in the district provide an opportunity to train youth in courses which are at a higher levels of the NSQF, especially at supervisory roles and those with higher technological requirements. ITIs and polytechnics, should increase the exposure to advanced machinery or content (like safety) to make the candidates job ready. Automotive, Light Engineering, Metal & Fabrication Food Processing, and Education sectors are key areas of employment potential require augmentation of training capacity.

4. **Enabling market understanding and managing career aspirations:** The aspired monthly income amongst youth was much higher than the prevailing wages youth engaged in economic activity presently earn. There is mismatch in perception and aspirations of youth about the salaries/wages, working conditions, career growth prospects, etc. Hence there is a requirement for initiating counselling on career prospects and market related counselling at the secondary levels of education, continuing through higher levels of education.
5. **Augmenting Labour at MSMEs:** Government-support in terms of wage subsidies or stipends would also allow small firms to recruit locally, and strengthen the skills ecosystem. Fostering such linkages would help both manufacturers and services providers (retail, telecommunications, healthcare, tourism and hospitality), along with vocational training institutions.





# 1. District Profile

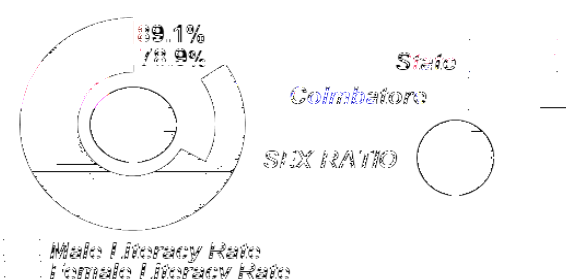
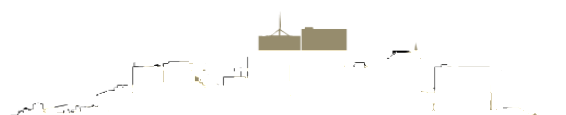
The District of Coimbatore, the second largest city by area and population, is one of the industrial hubs of the state. Established as an administrative unit in 1805, it neighbours the Districts of Tiruppur (East), Erode (North East), and The Nilgiris (North). The Districts of Palakkad and Idukki in Kerala make up the Western and Southern borders of the District. The geographical location of the District also makes it an important logistical hub for Industrial, Agricultural and Tourism.

## 1.1. Demographic Profile

Table 1: Key Demographic Indicators Coimbatore vs Tamil Nadu

SN	Indicator <sup>3</sup>	Coimbatore	Tamil Nadu
1	Total population	34,58,045	7,21,47,030
2	Population Density per sq.km (2011)	731	555
3	Urban Population	75.7%	48.4%
4	SC population (as % of total population)	15.5%	20.0%
5	ST population (as % of total population)	0.8%	1.1%
6	Differently abled population (as % of total population)	1.5%	1.6%
7	Population in age group 15-34 years (as % of total population)	31.8%	34.8%
8	SC population aged 15-34 years (as % of SC population)	35.6%	36.6%
9	ST population aged 15-34 years (as % of ST population)	35.1%	35.0%
10	Literacy rate	83.9%	80.3%

### Snapshot of Coimbatore's Demography



#### Key Highlights from the analysis of Census Data:

- Population Growth and Urbanization:** The Decadal growth rate of the population in the District was **18.6%** between 2001 & 2011, compared to **15.6%** at state level. The share of urban population has grown by **27%** while the rural population **has reduced at a rate of 1.8%**. The population growth in the city has been driven by the urbanization of rural areas (including redefining of administrative boundaries of the city to include further areas<sup>4</sup>) and inward migration.
- Literacy:** In 2011, the District had a female literacy rate of 78.9% while the male literacy rate of 89.1%. These are higher than the corresponding literacy rates at the state level (seen in the figure above). The

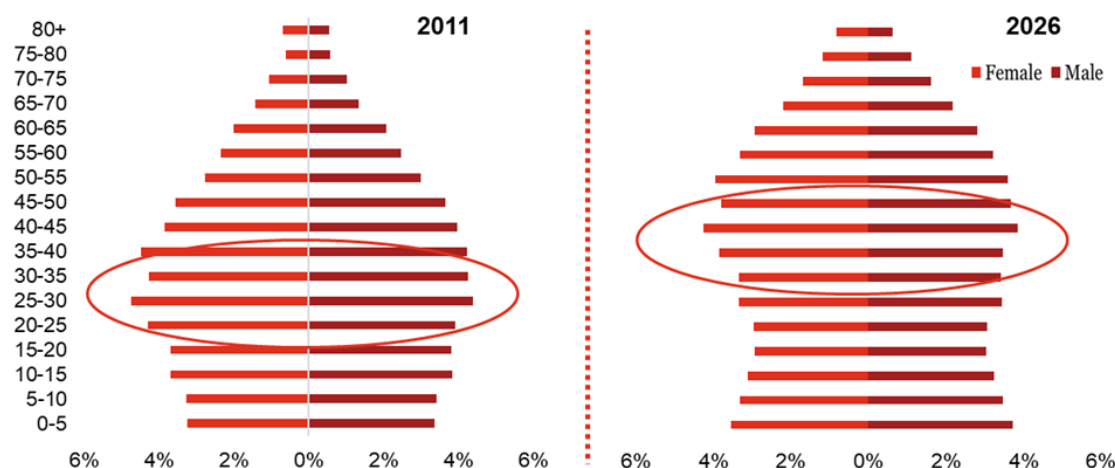
<sup>3</sup> Census 2011 & 2001

<sup>4</sup> [http://www.tn.gov.in/dtp/gorders/maws\\_t\\_219\\_2010.pdf](http://www.tn.gov.in/dtp/gorders/maws_t_219_2010.pdf)

literacy rates among males increased by 5% while among females it increased by 9%, reducing the gap between them from a 19% in 2001 to 10% in 2011. The reducing gap between the male and female literacy rates indicates a higher level of education attainment among females in the District.

- **Youth Demography:** About one-third of the population was in the age category of 15-34 years in 2011. The Median age was 31 years, greater than the median age of the state, which was 29 years, indicating a relatively older population in the District. The population is set to get older with median age in 2026 expected to be around 37, increasing the share of dependent population as illustrated in the age-specific population pyramid of the District as seen below.

*Figure 1 Age-wise Population Pyramid of Coimbatore (2011 vs 2026)<sup>5</sup>*



## 1.2. Economic Profile

Coimbatore is one of the most Industrialised Districts of the state and contributes to 7% of the states GDP. <sup>6</sup> The establishment of the spinning mills to feed the British and International Markets in the mid-nineteenth century placed Coimbatore only second to Bombay in the production of textiles and earned the region, the moniker '**Manchester of South India**'.<sup>7</sup> The establishment of an industrial base and conducive environment for entrepreneurship enabled the District to further diversify into other manufacturing Industries including **Foundry and Pump Manufacturing** among others. The geographical location also enabled widespread growth in trade and tourism industries. Strong industrial base and favourable geographical positioning contributed to the economic development of the District. The District is ranked sixth in terms of **Per Capita Income** and has **Household Purchasing Power capacity of more than five lakhs**<sup>8</sup>

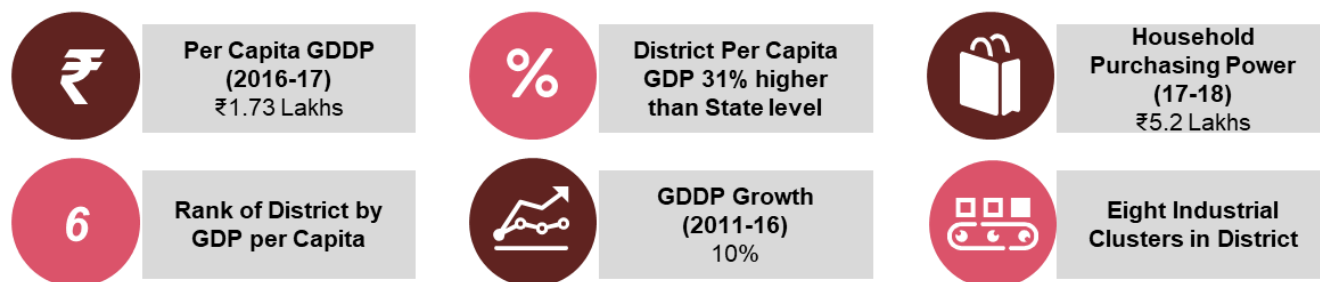
<sup>5</sup> Age wise Population projected for 2026 based on age group wise life expectancy, birth and death rates

<sup>6</sup> DDES, GoTN

<sup>7</sup> District Industries Profile, DC-MSME, 2015-16

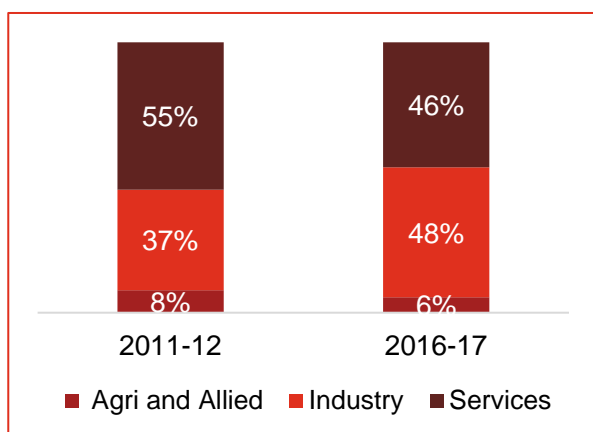
<sup>8</sup> Household Purchasing Power is calculated from the total purchasing power (disposable income after savings/ investments) of the District, divided by the projected number of households (savings/ investment data calculated from RBI database on savings). A strong correlation exists between the Per Capita GDP, the Banking Sector indicators (adjusted to population) and the consumption expenditure (disposable income) reported under NSSO at the national and state level. This relationship was further verified with data over several years. The state level purchasing power is then further broken down to the District level based on the District level banking data (savings and deposits) and the District level consumption estimates of the NSSO. (computed in <https://Districtmetrics.com/>)

Figure 2 Key Economic Indicators of Coimbatore District



### 1.2.1. Sector wise Analysis

Figure 3 Sectoral Share of GVA

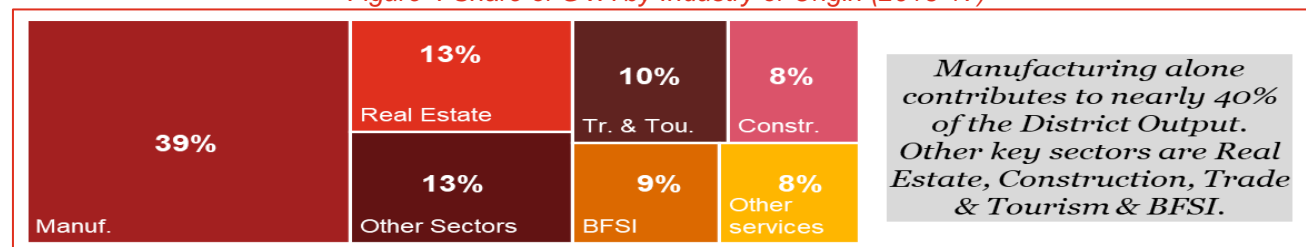


The Economy of the District<sup>9</sup> is dominated by the service and Industrial sectors, which jointly accounted for about 94% of the District output in 2016-17. The District has grown at a compounded annual growth rate of 10% largely driven by the Industrial sector, which grew at an average of 16% per annum between 2011-12 and 2016-17. The share of the agriculture sector in the District output fell by 2 percentage points owing to a fluctuating output due to erratic weather conditions. The Services sector has witnessed a steady growth and has not kept pace with the growth of the Industrial Sector. As a result, the latter has emerged as the largest contributor to the District economy increasing its share to 48% in 2016-17 from 37% in 2011-12. At sub-sector level, Manufacturing, Real Estate, Trade & Tourism, Construction & BFSI are the major contributors to the District's economy.

Table 2 Sector wise- Annual Growth Rate in Coimbatore

Sector	2012-13	2013-14	2014-15	2015-16	2016-17	Average
Agri & Allied	-10%	18%	-1%	11%	-7%	2%
Industry	23%	13%	7%	29%	8%	16%
Services	7%	8%	8%	4%	4%	6%

Figure 4 Share of GVA by Industry of Origin (2016-17)



### Agriculture and Allied Sector

The agriculture and allied sector is a minor contributor to the District's economic output. Plantation based commercial crops such as Coconut, Tea and Banana are key agriculture output apart from Sorghum (Jowar) and Groundnut<sup>10</sup>. Owing to the fluctuation in production of major crops like coconut and sorghum, the sector has seen the share of the decline since 2011-12<sup>11</sup>. The Agriculture & Allied sector in the District is increasingly dominated by livestock which includes animal husbandry and poultry followed by cultivation. The District is one of the leading Districts in commercial poultry<sup>12</sup>.

Figure 5 GVA of Agri and Allied Sectors (2016-17)

<sup>9</sup> Analysis in this section accounts is from data provided by Directorate of Economics and Statistics, GoTN

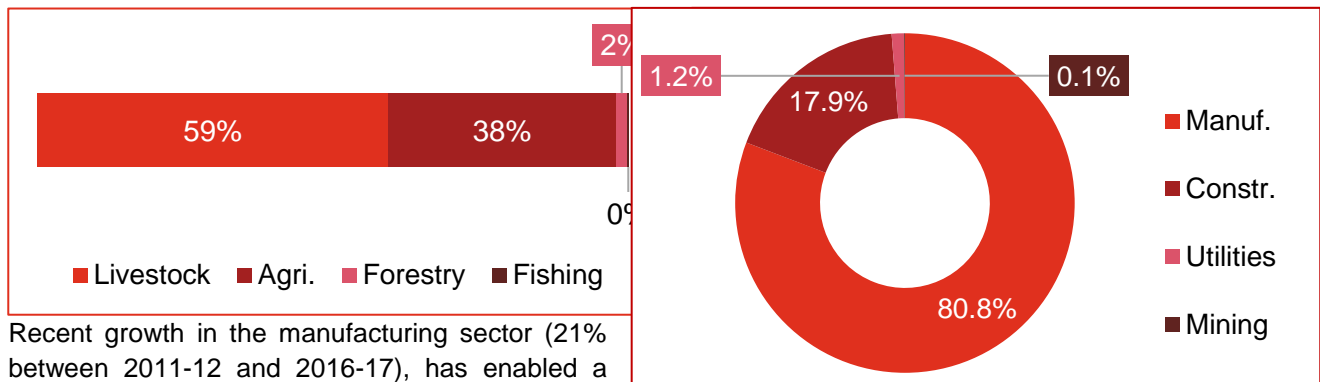
<sup>10</sup> District Agriculture Contingency Plan, Dept. of Agriculture Cooperation and Farmer Welfare

<sup>11</sup> [https://aps.dac.gov.in/APY/Public\\_Report1.aspx](https://aps.dac.gov.in/APY/Public_Report1.aspx)

<sup>12</sup> DIP, DC-MSME, 2016-17 & Animal Husbandry Policy Note 2018-19

## Industrial Sector

Figure 6 Crops by Share of Cultivated Area<sup>8</sup>  
Figure 7 Industrial Sector GVA (2016-17)



Recent growth in the manufacturing sector (21% between 2011-12 and 2016-17), has enabled a growth of the Industrial 16% per annum over the last 5 years. The sector is dominated largely by manufacturing and construction sectors, which jointly, account for over 99% of the output. **Textiles, Engineering Industries, Motor and Pump, Foundry, Engineering components, Wet Grinder, Automobile components and food processing** are some of the key Industries in the District.

### Key Clusters and Traditional Industries

<b>Textiles</b>	<ul style="list-style-type: none"> <li>Coimbatore accounts for 80% of the textile machinery manufactured in the country</li> <li>Exports clothes worth more than Rs. 21,000 Crores.</li> </ul>	<b>Wet Grinders</b>	<ul style="list-style-type: none"> <li>Coimbatore is home to wet grinders.</li> <li>It has more than 700 wet grinder manufacturers.</li> </ul>
<b>Engineering Industries</b>	<ul style="list-style-type: none"> <li>Estimated 50,000 engineering units in and around Coimbatore</li> <li>Prominent industries include L&amp;T, BOSCH, PSG, Sakthi Group,</li> </ul>	<b>Automobile Components</b>	<ul style="list-style-type: none"> <li>Maruti Udyog and Tata Motors source up to 30% of their automotive components from Coimbatore.</li> </ul>
<b>Foundry</b>	<ul style="list-style-type: none"> <li>700 foundry units in the Coimbatore cluster</li> </ul>	<b>Jewellery and Gems</b>	<ul style="list-style-type: none"> <li>The city is home to about 3000 jewellery manufacturing companies and to over 40,000 goldsmiths.</li> </ul>
<b>Motors &amp; Pumps</b>	Coimbatore Pumps and Motors manufacturing cluster with over 1,000 MSMEs are meeting almost 45 per cent of the countries requirements of pump sets.	<b>Poultry and Food Products</b>	<ul style="list-style-type: none"> <li>Namakkal-Kovai Region is home to almost 65% of the poultry population of Tamil Nadu.</li> <li>Largest chicken eggs and processed chicken meat exports in the country</li> </ul>

Table 3 Profile of Manufacturing Sector from ASI

Industry	No of Units	Employees	Average No of Workers	Share of Employment	Share of GVA
General Purpose Machinery	539	30,189	56	16%	21%
Special-Purpose Machinery	310	18,114	58	9%	12%
Spinning, Weaving And Finishing Of Textiles	905	36,230	40	19%	12%
Casting Of Metals	337	14,872	44	8%	8%
Other Fabricated Metal Products; Metalworking	213	5,997	28	3%	8%
Prepared Animal Feeds	17	2,248	132	1%	7%
Parts And Accessories For Motor Vehicles	136	13,965	103	7%	6%
Jewellery, Bijouterie And Related Articles	32	10,751	336	6%	3%
Paper And Paper Products	142	3,563	25	2%	3%
Non-Metallic Mineral Products N.E.C.	108	2,700	25	1%	3%

Industry	No of Units	Employees	Average No of Workers	Share of Employment	Share of GVA
Others	1,479	52,444	35	28%	17%
Total	4,218	1,91,073	45	100%	100%

According to the ASI 2014-15, more than 4,000 Industrial units were present in the District, directly employing more than one lakh workers. Engineering & Foundry Industries. Textiles and Metal Casting were the key Industries as per output and employment.

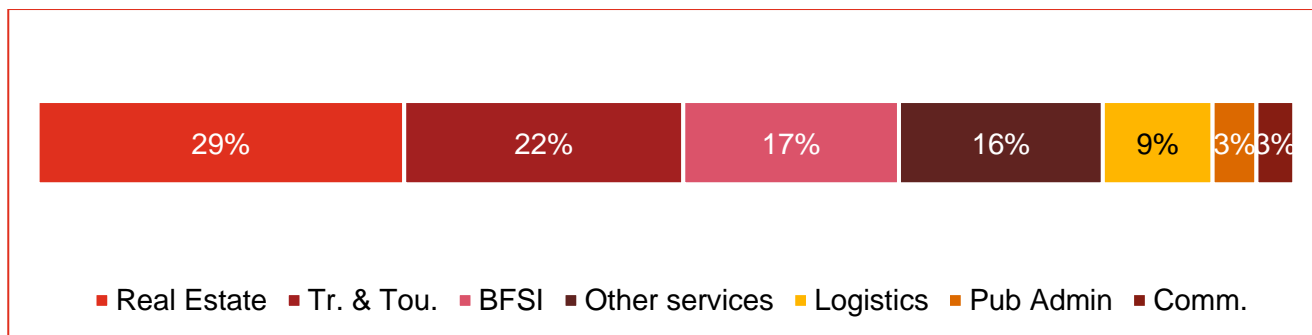
*Table 4 Existing Industrial Estate & Plants*

S.No	Name	Industries
1.	Tamil Nadu Small Industries Development Corporation Limited Industrial Estate (TANSIDCO) – Kurichi	Multipurpose
2.	Tamil Nadu Small Industries Development Corporation Limited Industrial Estate (TANSIDCO) – Malumichampatti	Multipurpose
3.	Tamil Nadu Industrial Development Corporation (TIDCO)- TIDEL Park	IT/ ITES
4.	Electronics Corporation of Tamil Nadu Limited (ELCOT)	IT/ITES

### Services Sector

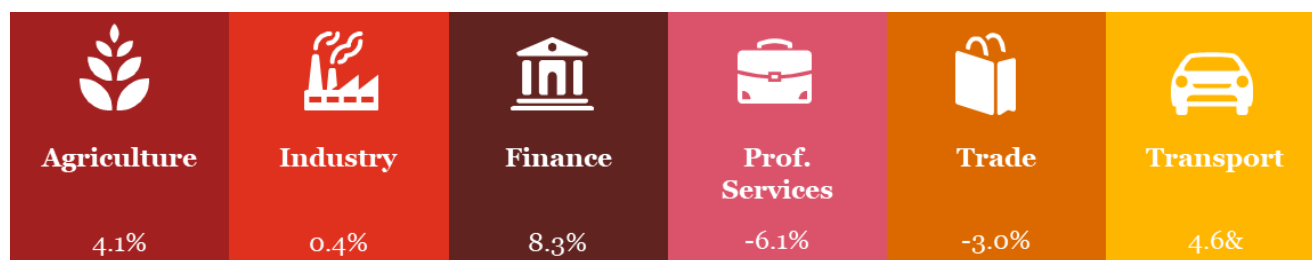
The sector has witnessed a steady growth with an average of 6% per annum since 2011-12. However, due to the relatively strong performance of the Industrial sector, the share of the Services sector in the Economy has fallen to 46% from 55%. High level of urbanization in the District has resulted in a high share of Real Estate and Business Services output (owing to increasing real estate pieces, and rents). The District is an important trading hub in Western Tamil Nadu. It also serves as a gateway to the Districts of Central and North Kerala and Southern Karnataka. The key location drives trade and tourism sector in the District. In addition, important Tourist attractions and proximity to the Nilgiris, Mettupalayam, Marudhamalai, Pollachi, Aliyar Dam etc. are important attractions contributing significantly to the services sector in the District. The investments in the IT-ITES infrastructure like the TIDEL Park, ELCOT SEZ, Hitech Infrastructure have seen the growth of Coimbatore as a destination for investments in the sector (which is listed under 'Business Services' in the GDDP).

*Figure 8 GVA of Services Sector (2016-17)*



### 1.2.2. Investments and key economic drivers

Figure 9 Sector-wise growth of Credit off Take (2013-14 to 2015-16) - RBI



According to the data collected from the RBI<sup>13</sup>, the District has seen recent growth in credit off takes especially in Financial, Transport and Agriculture Services indicating higher business investments in the sectors. Credit offtake in Industry has been low while Professional services and trade saw a decline between 2013-14 and 2015-16.

Other key investments and sectors include

- According to TN-Global Investors Meet data, more than 950 Crores of Investment is expected in the manufacturing sector in Apparel and Textile, Automotive, Component Manufacturing Industries with an expected direct employment of more than 1,750 people
- Lakshmi Autocomponents and L&T Defence have announced key projects in the manufacturing sector
- Investments are expected in the infrastructure sector with major upgradation of urban infrastructure through smart city program, National Highway upgradation
- Comprehensive development of ecotourism in Sethumadai by the which would include nature trails, adventure tourism among others

A sector-wise analysis of the key investments and upcoming projects have been listed below:

<sup>13</sup> Source: geocred.com

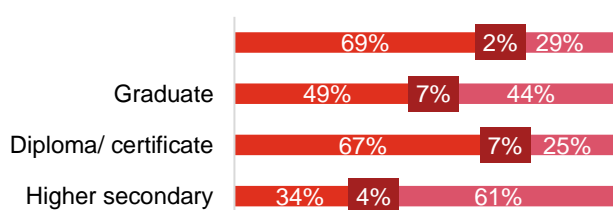
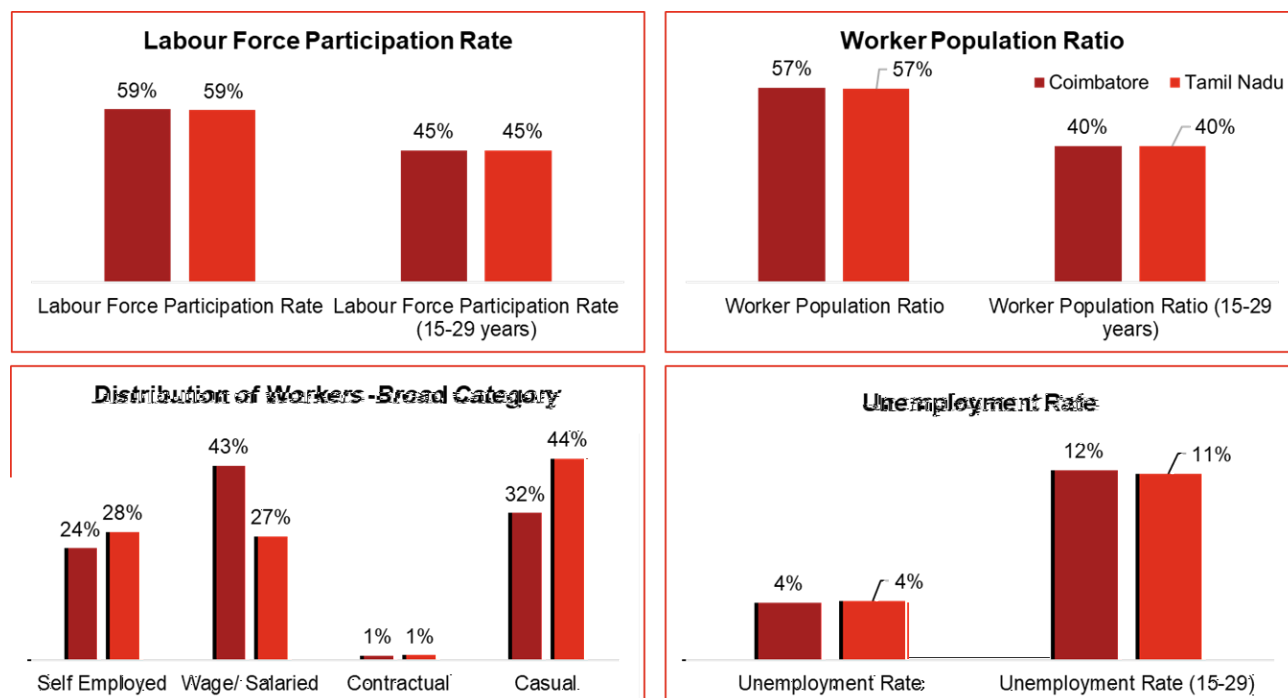
Sectors	Key Investments	
	Textile	<ul style="list-style-type: none"> <li>• Investments &gt; Rs. 200 Crore signed as part of GIM with expected Employment of more than 2,000 people</li> </ul>
	Automotive	<ul style="list-style-type: none"> <li>• Investments &gt; Rs. 150 Crores signed as part of GIM with expected Employment of 300 Direct employment.</li> <li>• Key investments expected from L&amp;T Defence and Lakshmi Autocomponents</li> </ul>
	Metals & Fabrication	<ul style="list-style-type: none"> <li>• Investments &gt; Rs. 300 Crores signed as part of GIM with expected Employment of 500 Direct employment.</li> <li>• Investment by Ekki expected in its 4<sup>th</sup> Plant in Coimbatore</li> </ul>
	Infrastructure	<ul style="list-style-type: none"> <li>• Investments by Coimbatore City Corporation in Drainage, Solar Energy, apart from beautification worth more than Rs 200 Crores.</li> <li>• NHAI - Madathukulam-Pollachi (NH-83) 4 Lining worth more than Rs. 7,000 Crores</li> </ul>
	Building & Construction	<ul style="list-style-type: none"> <li>• Real Estate Development by major developers including Sreevatsa and Sanbrix</li> </ul>
	Logistics	<ul style="list-style-type: none"> <li>• Investments &gt; Rs. 150 Crores signed as part of GIM with expected Employment of 1300 Direct employment</li> </ul>



### 1.3. Labour Market Profile

The District's major labour market indicators<sup>14</sup> are largely in line with those of the state. Around 59% of the working age population (15-59 years) are able and willing to work while around 57% are in the workforce. However, a major contrast in the District is with regard to the nature of employment of the workforce. The largest category is that of the wage / salaried employees at 43% against the state average of 27%. The District has low level of overall unemployment rate (3.5%). However, among the youth aged 15-29 years, the unemployment rate is 11.6% indicating the lack of mismatch between the demand and supply for jobs among the youth.

Figure 10 Key Labour Market Indicators



The education wise classification of the population in the District indicates a correlation between higher levels of education and higher unemployment. This points towards mismatch between industry demand and the output from the education system. 7% of Graduates and Diploma holders were unemployed. This translates into an unemployment rates<sup>15</sup> of 13% and 10% in each of the categories.

Table 5 LFPR and Unemployment Rate by Sex & Location

Sex	LFPR		Unemployment Rate	
	Rural	Urban	Rural	Urban
Male	79.7%	78.8%	2.2%	2.5%
Female	58.5%	34.4%	2.4%	7.1%

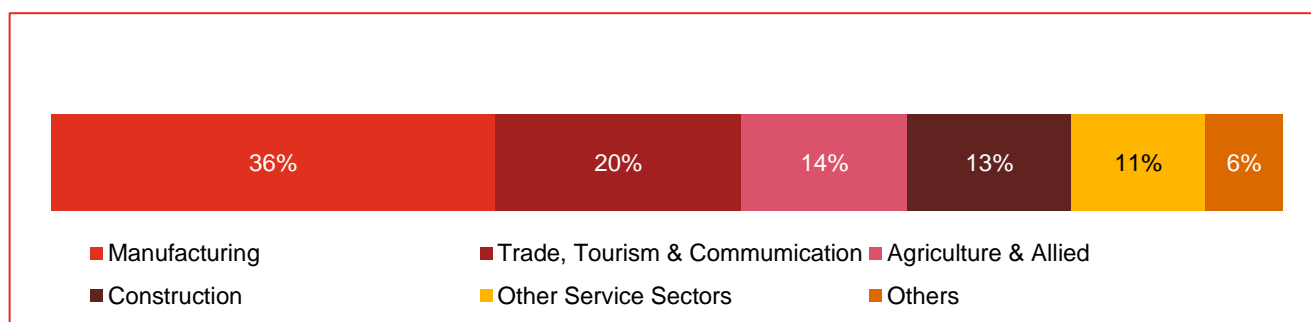
Disaggregating LFPR by sex and location of the respondent, it is seen that the participation rate of urban females is only **34.4%** compared to the 58.5% of the rural females in the working age population. The difference is marginal among males. **It is observed that in spite of a lower participation rate, a higher proportion of the Urban Females seeking work are unemployed.**

<sup>14</sup> Analysis in this section are based on the District Level Estimates, EUS, 2013-14, Labour Bureau

<sup>15</sup> Unemployment rate is a proportion of the Labour force who are willing but unable to find work.



Figure 12 Sector-wise share of Employment



More than one-third of the workforce in the District is employed in the manufacturing sector reflecting the dominating influence of the sector in the District. Trade, Tourism and Communication is the second most important sector in terms of employment, followed by agriculture. The ratio between agriculture employment and output is relatively high, indicating high productivity of the workforce in the District.

## 1.4. Education and Skill Development Profile

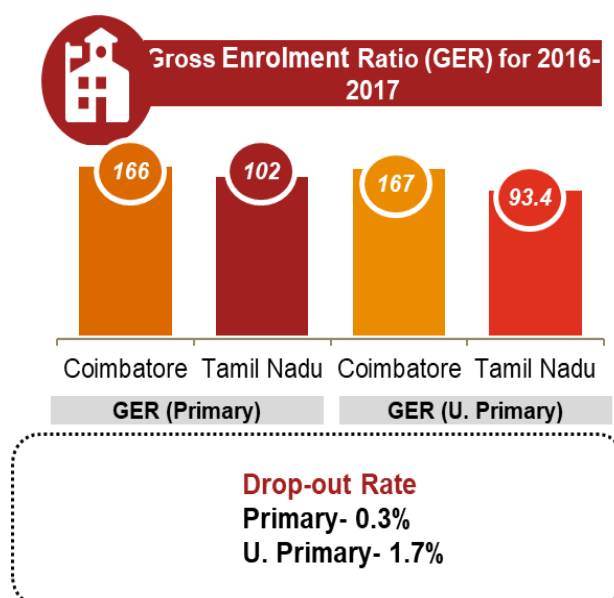
### 1.4.1. Education Profile

Coimbatore is an important centre for education in the state and national level and is home to some of the oldest and reputed institutions including the Tamil Nadu Agricultural University, Bharatiar University and the regional centre of the Anna University. It is also a major centre for school education housing several residential schools apart from having students travel from other Districts on a daily basis for the purpose of education.

Table 6 Primary Education Profile - DISE

Particulars	Number
Schools in 2016	3,113
Schools in 2017	3,159
Pub. Schools	1,003
Pvt. Schools	2,103
Enrolment in 2016	6,16,420
Enrolment in 2017	6,10,918
Enrolment in Pvt. Schools	3,39,604
Enrolment in Pub. Schools	2,66,635

Figure 13 GER and Drop-out Rates - DISE



According to DISE data (refer Table 6), there were 3,159 schools in the District (a growth of 1.5% from 2016) while the number of enrolments have fallen by around 1%. The Private sector dominates both the number of schools and the enrolments. The Gross Enrolment Ratio at both Primary and Upper Primary are higher than the state averages (Figure 13). The ratio indicates that the number of students in the District outstrip the expected population in the age cohort by a large margin. The skew is attributed, among other reasons, to the presence of several schools that cater to students from the neighbouring Districts. The drop-out rates are marginal at 0.3% and 1.7% at the primary level and at the upper primary level respectively.

The Higher Education is dominated by the Engineering Stream with 67 colleges catering to 68,785 students in total, followed by the 51 General Arts & Sciences Colleges with an enrolment of 43,825. The admissions in Engineering Colleges and Polytechnics are dominated by males while the females dominate the admissions in Arts and Sciences programs and nursing.

Table 7 Institutions of Higher Education in Coimbatore District<sup>16</sup>

S.No	Institution Type	No of Institutions	Students		
			Males	Females	Total
1.	Engineering Colleges	67	56,398	12,787	68,785
2.	General Arts & Science Colleges	51	18,080	25,745	43,825
3.	Polytechnics	26	23,183	3,320	26,503
4.	Industrial Training Institutes	19	--	--	6,400
5.	Nursing Colleges	17	400	3,240	3,640
6.	Pharmacy Colleges	10	1,032	1,958	2,990
7.	Medical Colleges	3	929	1,726	2,655
8.	Government Law College	1	824	493	1,317

9.

S.No.	Scheme.	Sector	Job Role	Number of Training Centers	Intake
			Domestic Data entry Operator	1	60
			Junior Software Developer	2	210
		Tourism & Hospitality	Front Office Executive	1	60
3.	Tamil Nadu Skill Development Programs	Apparel & Textile	Advance Pattern Maker (CAD CAM)	1	40
			Assistant Designer Home Furnishing	1	80
			Assistant Fashion Designer	1	40
			Merchandiser Made ups & Home Furnishing	1	40
			Pattern Master	1	40
			Production Supervisor (Sewing)	1	40
			Sewing Machine Operator	3	300
			Textile Designer Handloom Jacquard	1	40
			Fitter Manual Winding	2	120
			fashion design technology	1	40
			Zardosi Work	1	75
			Zig Zag Machine Embroidery	1	75
		Automotive	Auto Body Technician Level 3	1	40
			Automotive Service Technician Level 3	3	100
			Automotive Service Technician Level 4	3	90
			Foundry Assistant/ Casting Assistant	1	40
			Lathe Operator	1	30
			Repair Painter Auto body L 3	1	40
			Senior Prosthetic and Media Make Up Artist	1	60

S.No.	Scheme.	Sector	Job Role	Number of Training Centers	Intake
			Welding Assistant	3	110
			Basic Automotive Servicing 4 wheeler	3	100
		BFSI	Accounting	2	80
			Junior Finance associate	1	20
			Junior Marketing Associate	1	20
			Small Office/ Home Office Coordinator	1	20
			Accounts Assistant using Tally	1	120
		Beauty & Wellness	Assistant Beauty Therapist	2	320
			Beauty Therapy and Hair Styling level One	1	90
			Bridal Make up Artist	1	40
		Capital Goods	CNC Operator - Turning	5	170
			CNC Operator Vertical Machining Centre	1	40
			Fitter Fabrication	1	30
			Manual Metal Arc Welder	1	30
			Operator Conventional Turning	2	60
			Arc and Gas Welder	5	270
			Sheet Metal Worker (Panels, Cabins & Ducts)	1	60
			Welder (Repair & Maintenance)	1	60
			CNC Milling	4	210
			CNC Turning	3	230
			Milling	2	170
			Quality Inspector	1	40
			Turning	5	270
			Machinist	2	80
		Construction	Assistant Electrician	1	30
			Helper Electrician	1	60

S.No.	Scheme.	Sector	Job Role	Number of Training Centers	Intake
			3D ADVANCED Designer Using ProE	1	20
			Assistant Plumber	1	20
			Mason	1	20
			Plumber	1	200
			Plumber (General)	1	30
		Electrical	Electrical Winder	1	110
			Electrician Domestic	5	210
			Electrician Industrial	1	20
		Electronics	Field Technician Other Home Appliances	1	20
			Repair & Maintenance of Domestic Electronic Appliances	2	80
			Repair & Maintenance of Office Electronic Equipment	1	20
			Repair & maintenance of Personal electronic devices	1	40
			Repair and Maintenance of Refrigerator	1	60
			Handset Repair Engineer	1	60
		IT/ ITES	Associate Desktop Publishing(DTP)	1	20
			Domestic Data entry Operator	1	40
			Computer Hardware Assistant	1	20
			Computer Network Assistant	1	20
			DTP and Print Publishing Assistant	1	20
		Media and Entertainment	Digital Camera Photography	1	120
			Videography	1	120
			Lighting Artist	1	60
			Sound Engineer	1	60

S.No.	Scheme.	Sector	Job Role	Number of Training Centers	Intake
		Green Jobs	Solar PV Installer (Suryamitra)	5	155
			Solar PV Technician	1	20
			Solar Module Assembly Technician	1	40
		Gems & Jewellery	Cast and dimonds set jewellery Hand Sketch	1	120
			Bridal Jewellery Set maker	1	40
		Security	Defence Service Training	1	1000
		Retail	Sales Associate	1	60
		Healthcare	General Duty Assistant	7	490

### Long Term Skill Development Programs (ITIs)

The long-term skill development programs are predominantly offered through Industrial Training Institutes, which offer one and two year programs in various sectors and trades. There are 19 ITIS in the District with a stated capacity of more than 6,400 across 27 trades. However, only 10 ITIs, and around 1,600 seats have been approved by NCVT in this session, while others await approvals. The table below presents the courses offered through ITI, and the number of such institutes offering each trade/ training for job role. Mechanic (Motor Vehicle) (10%), Computer Operator and Programming Assistant (9%), Electrician (8%), Wireman (8%), Fitter (6%) are the key trades. Overall the ITIs see 70% utilisation<sup>20</sup>. The pass percentage from the courses is 72%, marginally higher than the state average of 71%<sup>21</sup>. .

**Table 9 Vocational Training under Long Term Skill Development Programs (ITI)**

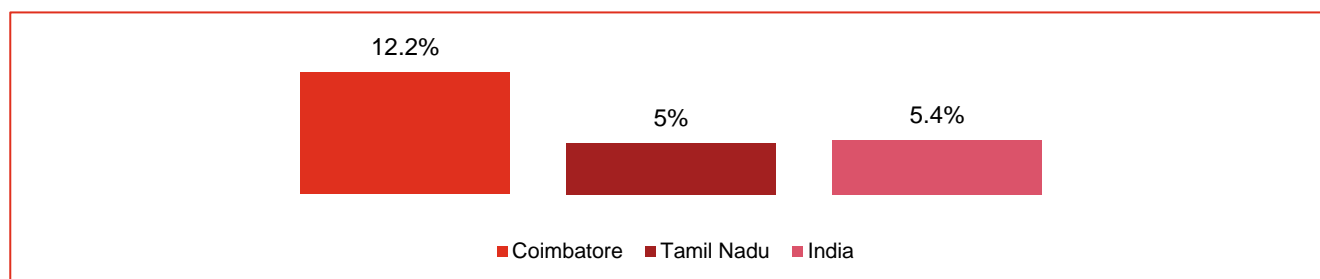
Sector	Job Role	Training Centres	Intake
Automobiles and Auto Components	Mechanic (Motor Vehicle)	11	168
Capital Goods	Plastic Processing Operator	1	21
	Instrument Mechanic	2	52
	Welder	2	63
	Sheet Metal Worker	1	21
	Draughtsman (Civil)	3	52
	Draughtsman (Mechanical)	3	52
Construction	Electrician	11	126
Electronics & Hardware	Wireman	8	126

<sup>20</sup> NCVT

<sup>21</sup> Directorate of Training, GOTN

Sector	Job Role	Training Centres	Intake
	Mechanic (Refrigeration and Air-Conditioning)	1	26
Handicrafts & Carpets	Turner	6	80
Infrastructure Equipment	Mechanic Diesel	3	63
	Electronics Mechanic	5	78
	Mechanic Machine Tool Maintenance	1	21
Instrumentation, Automation, Surveillance and Communication	Mechanic Mechatronics	1	21
Iron and Steel	Machinist	4	64
	Machinist (Grinder)	1	16
IT/ ITeS	ICT System Maintenance	2	52
	Computer Operator and Programming Assistant	6	156
	Desk Top Publishing Operator	1	52
	Computer Hardware & Network Maintenance	1	78
	Information Technology	1	26
Mining	Fitter	11	105
Textile and Apparel	Tool & Die Maker (Dies & Moulds)	1	42
	Fashion Design & Technology	1	21
	Sewing Technology	2	42
Tourism and Hospitality	Food Production (General)	2	52

Figure 14 Population Undergone Vocational Training - EUS 2015-16



With respect to population aged 15 and above around 12.2% in Coimbatore had undergone any vocational training, compared to only 5% at the state level. The All-India level is lower than both figures<sup>22</sup>.

<sup>22</sup> Employment and Unemployment Survey, 2015-16, Ministry of Labour and Employment





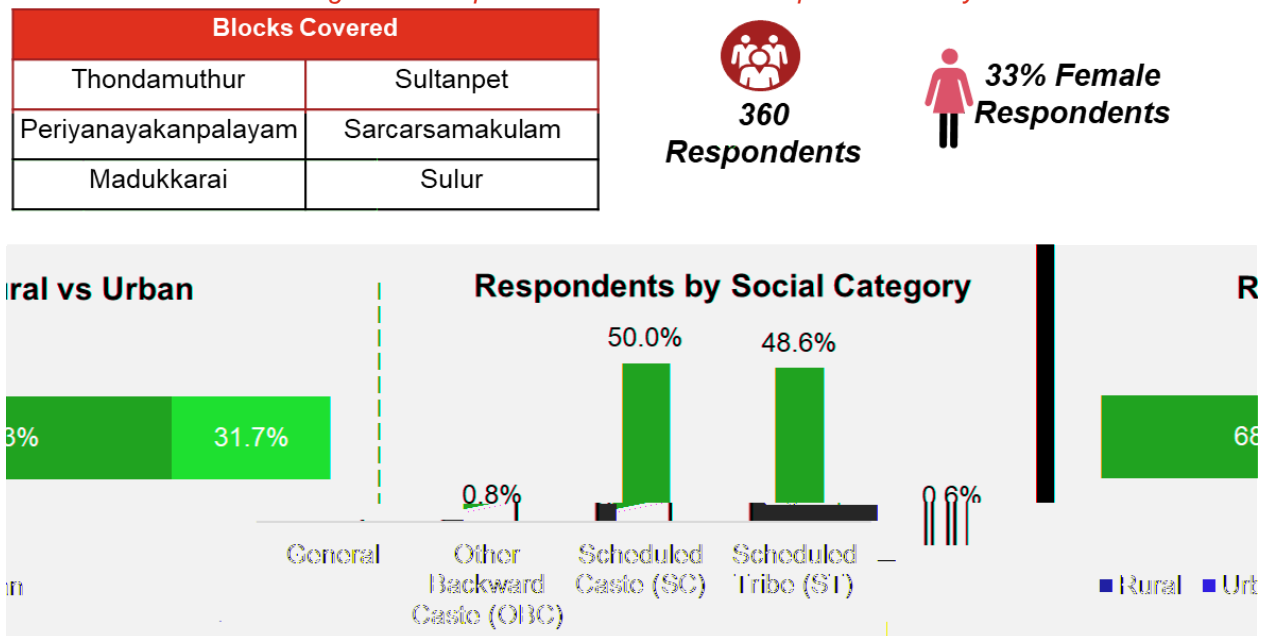
## 2. Youth Perspectives

The study covered youth, employers, industrial associations and other key stakeholders to understand the demand and supply side perspectives of skills. The information was collected through both quantitative survey and qualitative approaches including In-Depth interviews and focus group discussions.

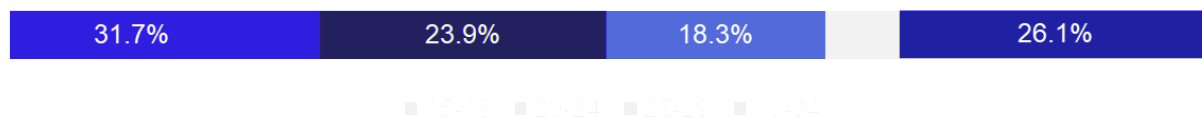
### 2.1. Profile of Respondent Youth

The structured household survey tool was administered with the 360 youth (young men and women in the age group of 15-34 years) sampled from six blocks Thondamuthur, Madukkarai, Sultanpet, Perianayakanpalayam, Sarcarsamakulam, and Sulur. Of the total respondents, **33% were female**. Also, **68% of the respondents** were from the rural category. The sample has balanced representation of various socioeconomic and demographic characteristics of the population.

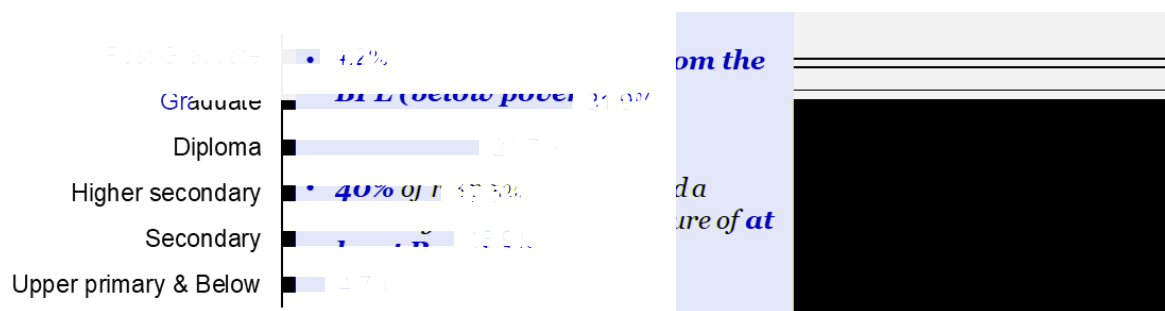
Figure 15 Respondent Profile of Youth Aspiration Survey



Age category wise distribution of Respondents



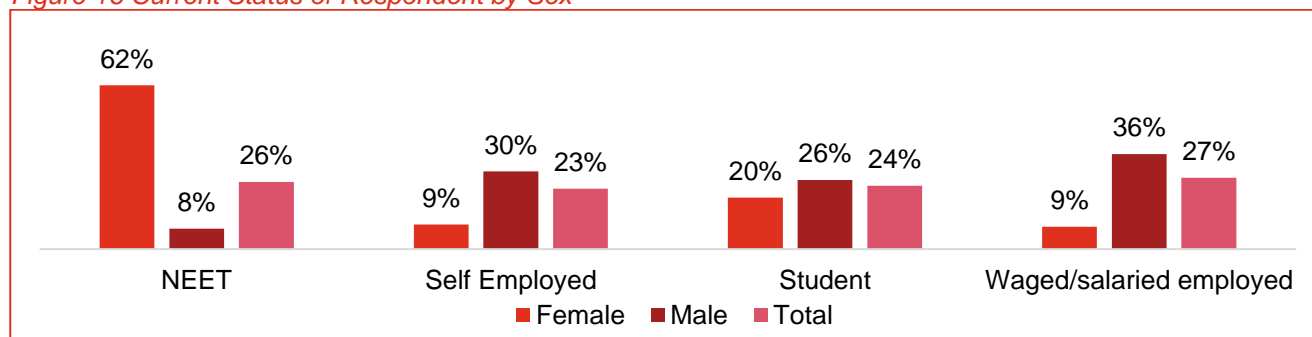
Respondents by Educational Attainment



## 2.2. Respondent Current Status

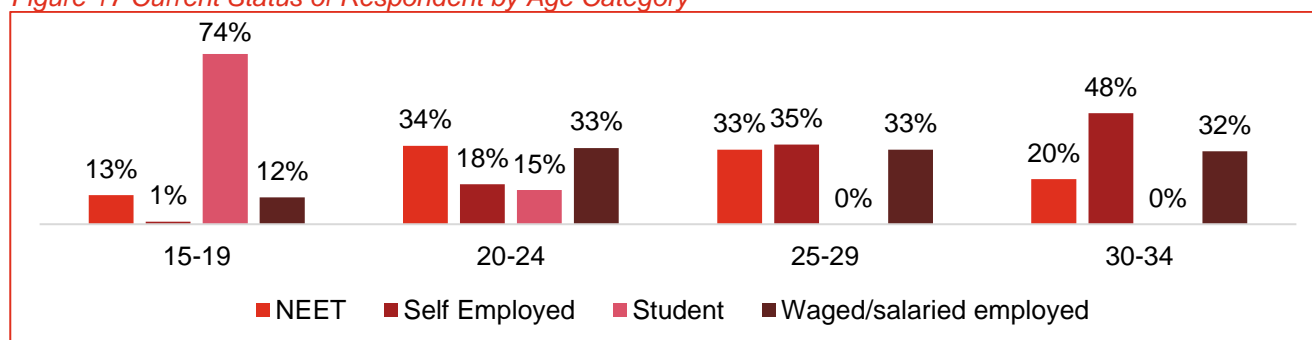
Figure 16 illustrates the gender wise classification (current status) of the respondents interviewed during the household survey. While the female respondents were predominantly falling in the NEET (62%) category, the male respondents were largely distributed between Wage / Salaried Employment (36%), and Self Employment Education. While two-thirds of the male respondents were engaged in economic activity, less than one-fifth of the female respondents reported to be engaged in the same.

Figure 16 Current Status of Respondent by Sex



Analysing the sample across age categories (Figure 17), it is seen that most (74%) of the respondents in the 15-19 years age category were students while around an equal share of respondents were split between NEET and Wage Employment categories. In the 20-24 years age category, a large one third of the respondents fell either in the NEET and or in the Wage Employment category. In the 25-29 years age category, the sample was distributed almost equally between NEET, Self-Employment and Wage Employment with no respondent in Education. Nearly half of the respondents in the 30-34 years age category were in Self Employment while another one-third were in Wage Employment.

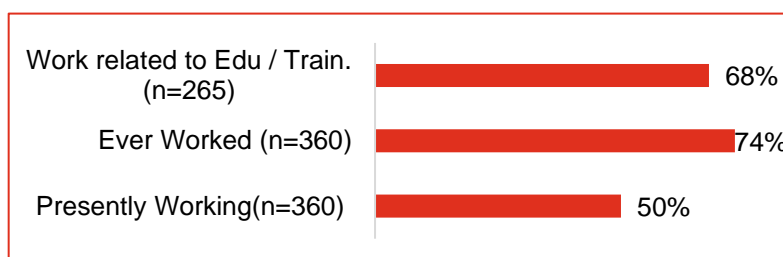
Figure 17 Current Status of Respondent by Age Category



## 2.3. Economic Engagement of Youth

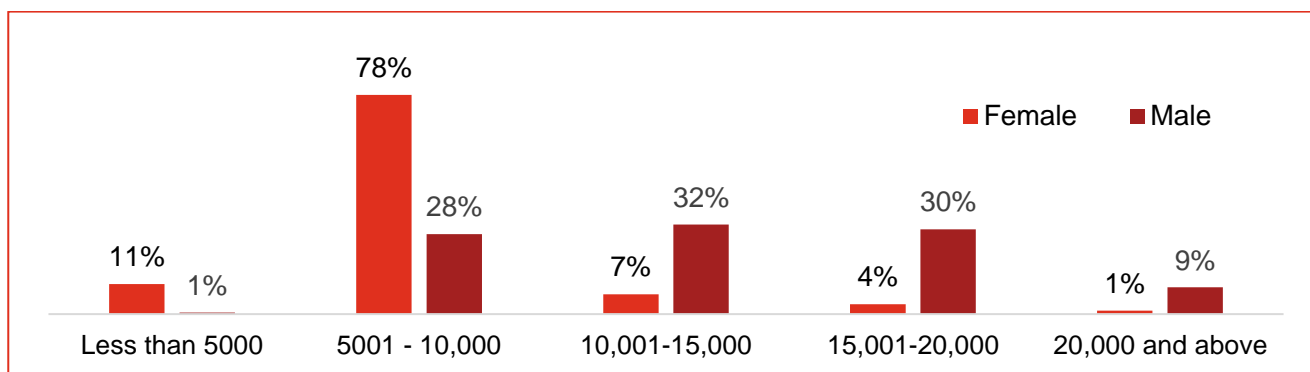
Figure 18 Work Profile of Respondents

Nearly three-fourths of the respondents had been engaged in an economic activity of some kind, however, only 50% of the respondents were presently engaged in one. 68% of the respondents who had ever engaged in an economic activity reported that they were employed in a field related to their education / training.



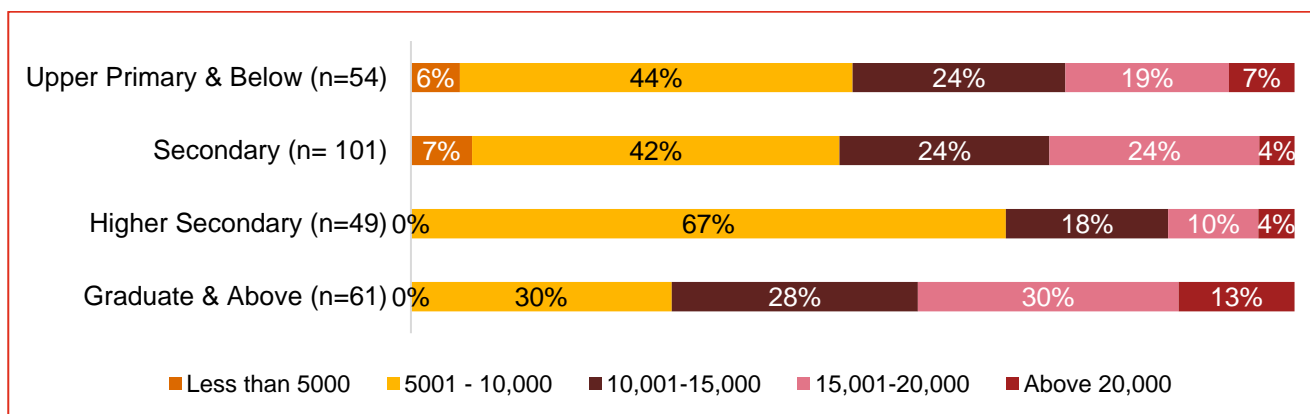
The Median income of those who ever engaged in economic activity was ₹10,437. While it was ₹7,538 among females, it was 13,333 among males. 88% of female respondents had earned a monthly income of ₹10,000 or lesser. While the overall median income was higher than the state level (₹9,968), the females earned much lesser than the state level (₹7,912), while the males earned substantially higher than state levels (₹11,713). 43% of the graduates (and above) earned higher than ₹15,000 a month, against a state average of 30%.

Figure 19 Distribution of Respondents across Monthly Income Category across Sex



(n=265)

Figure 20 Distribution of respondents across Monthly Income Categories by Education Level



A large proportion of the respondents ever engaged in economic activity were engaged as a skilled worker in trades like (tailoring, masonry, carpentry, welding, engineering etc). Among those with education of Higher Secondary and below, livestock was the second most common form of economic activity.

Table 10 Education Qualification of Respondents and Employment Type

	Upper Primary and Below	Secondary	Higher secondary	Diploma and Above
<b>Farm Activities</b>	9%	10%	4%	5%
<b>Livestock</b>	31%	23%	37%	5%
<b>Unskilled work (Construction / servicing/ MGNREGA)</b>	31%	23%	37%	5%
<b>Salaried Employment</b>	2%	3%	6%	16%
<b>Skilled worker (tailor, mason)</b>	46%	52%	35%	51%
<b>Business / Trade / Manufacturing</b>	9%	14%	18%	23%
<b>Number of respondents</b>	<b>54</b>	<b>101</b>	<b>49</b>	<b>61</b>

## ***Youth Survey findings***

### **NEET (n = 92)**

- 80% of NEET resp. are female
- 57.8% have finished school education
- 44.6% reported being in NEET category for the previous **1 year or more**
- **75% are looking to work**

### **Self Employed (n=83)**

- 13% of Self Employed resp. are female
- 31% of respondents in 20-34 years reported self employed
- **55% have diploma / college education.**

### **Wage / Salary Employed (n=94)**

- 10% of employed respondents Female
- 70% have finished school education
- 25% have diploma college education

### **Student (n=87)**

- 74% in 15-19 years age group are students
- 20% female
- All under the age of 29 years

## 2.4. Youth under NEET Category

Around one-fourth of the respondents were from the NEET category. 79% of the respondents in the NEET respondents were female. Male respondents have been in the NEET category than female respondents. While 68% of males been in NEET category for less than 6 months, more than half of the female respondents have been in the NEET category for more than a year. 42% of the respondents in the NEET category are between the ages 20-24 years while 30% are between 25-29 years. This indicates a lack of appropriate opportunities for youth who have just completed what would have been their tertiary education.

**69% of the Female respondents and almost all male respondents (barring one), wish to work in the future.** However, only 28% of those female respondents have been actively seeking work. On the other, hand all the male respondents in this category wishing to work are actively seeking work opportunities.

*Table 11 NEET Category Respondents*

Duration in NEET Category				Wish to Work			
	Female	Male	Total		Female	Male	Total
Less than 6 months	14%	68%	25%	Yes	69%	95%	74%
6 months- 1 year	33%	21%	30%	Total	73	19	92
1- 2 years	45%	0%	36%	Actively Seeking Work			
2- 3 years	7%	11%	8%		Female	Male	Total
More than 5 years	1%	0%	1%	Yes	28%	100%	47%
Total	73	19	92	Total	50	18	68

## 2.5. Youth Career Aspiration

The youth in the District expressed preference largely for self-employment (37%)

**Table 12 Career Aspiration - Factors, Preparedness and Availability of Jobs**

Factors Determining Aspiration	Responses* (n=360)	Perception of Preparedness for Jobs	Responses
Social Status	67%	Largely Prepared	40%
Salary (wages) / Income	59%	Moderately Prepared	39%
Job Security	37%	Somewhat prepared	15%
Gender suitable role	19%	Not Prepared	6%
Flexible work arrangements (location, schedule)	14%	<b>Availability of Job Opportunities</b>	
Safety / Security	6%	Very adequate	1%
Traditionally Acquired Skills / Family Business	1%	Somewhat adequate	14%
Emigration Prospects	0%	Neither adequate nor inadequate	6%
Employer provided benefits and perks	0%	Somewhat inadequate	78%

\*Multiple response question, sum may exceed 100%

Among the challenges that the youth see in pursuing the careers, the pressure related to getting married is most cited. Surprisingly a similar share of males and females highlighted this as an issue. Other factors include 'Unsafe environment' at work and the lack of local jobs. **About 17% of the youth highlighted the lack of technical and vocational skills as a challenge in pursuing their career aspiration.**

**Table 13 Career Aspiration Challenges in pursuing desired career**

Challenges (n=360)	Responses	Challenges (n=360)	Responses
Pressure related to getting married	38%	Lack of work experience	10%
Unsafe working environment	21%	Low financial strength	9%
Lack of jobs locally	21%	Lack of guidance / information on appropriate job available for skill levels	7%
Lack of technical / vocational skills	17%	Lack of Soft Skills	1%
Lack of family support / social acceptance of girls being engaged in economic activity	11%	No Challenge	3%
Lack of sufficient education qualification	11%		

\*Multiple response question, sum may exceed 100%

The key factors influencing their employability, according to the respondents, were years of 'relevant experience' (36%), 'soft skills' (32%) and 'certifications in technical skills' (25%). 'Clear communication skills' (67%) and 'coordination skills' (62%) were identified as key skills specific to their aspired jobs. 'Team work' (20%) and 'time management' (15%) were other identified areas of skill development. **While 43% respondents had already taken steps to meet these requirements, 39% were intending to take up a vocational / skill training program.** 13% respondents were looking to continue education while 7% were looking for apprenticeships.

**Table 14 Key Requirements to enhance employability and steps to achieve aspirations**

Key Requirements to enhance employability*					
Requirements		Responses	Requirements		Responses
Years of Relevant Work Experience		36%	Education attainment (level of education)		2%
Soft skills		32%	Institution of Education / Skill Training		1%
Certifications of Technical Skill		25%	References		0%
Relevant work experience in similar position or field		3%			
Key Skills Required for desired job*					
Clear communication		67%	Active listening		4%
Coordination Skills		62%	Leadership		3%
Team work		20%	Creativity, originality and initiative		1%
Time management		15%	Complex problem-solving		0%
Analytical thinking		5%	Attention to detail		0%
New Steps to achieve aspirations					
Steps		Responses	Steps		Responses
Already in Pursuit		43%	Apprenticeship / Gathering Work Experience		7%
Vocational/ Skill Training		39%	Others		0%
Continuing Education		13%			

\*Multiple response question, sum may exceed 100%, (n=360)

The 'auto and auto-component' sector is the most popular and aspired sector among the respondents with 20% youth preferring it. Other sectors include 'food processing', 'iron & steel', 'construction' and 'domestic help'. These sectors align with the local economy. Only 9% of the respondents were interested in gig work.

**Table 15 Sectors aspired by respondents**

Males	Responses	Female	Responses
Auto and Auto Components	28%	Food Processing	26%
Iron & Steel	14%	Building, Construction Industry	19%
Agro-business	7%	Domestic Help	14%
Domestic Help	7%	Electronic & IT Hardware	9%
Handloom & Handicrafts	7%	Beauty & Wellness	8%
Real Estate	7%	Banking Financial Services and Insurance	6%
Healthcare Services	7%	Agro-business	5%
Building, Construction Industry	5%	Healthcare Services	5%
Chemical & Pharmaceuticals	5%	Auto and Auto Components	4%

Males	Responses	Female	Responses
Furniture and Furnishing	4%	Furniture and Furnishing	3%
Food Processing	2%	Gems & Jewellery	3%
Other manufacturing	5%	Other manufacturing	11%

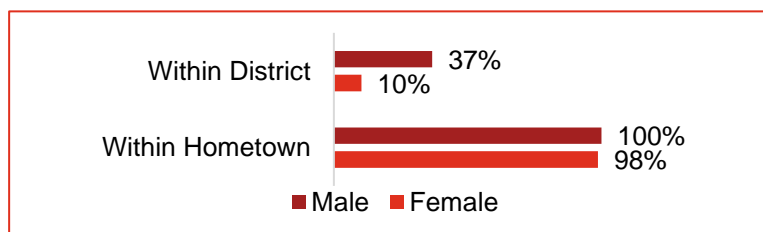
(n=360)

The median income expectation is around ₹15,000. Around 34% of the respondents have expectations of monthly income greater than ₹20,000. A majority of the NEET category respondents were expecting a salary of below ₹15,000.

*Table 16 Aspired monthly salary of respondents*

Salary / Category	NEET	Self Employed	Student	Waged/salaried employed
10,000 and below	32%	2%	0%	3%
10,001-15,000	52%	5%	33%	21%
15,001-20,000	12%	19%	31%	43%
20,001-25,000	4%	29%	30%	26%
25,001-30,000	0%	40%	5%	6%
Above 30,000	0%	5%	1%	1%
N=	92	83	87	98

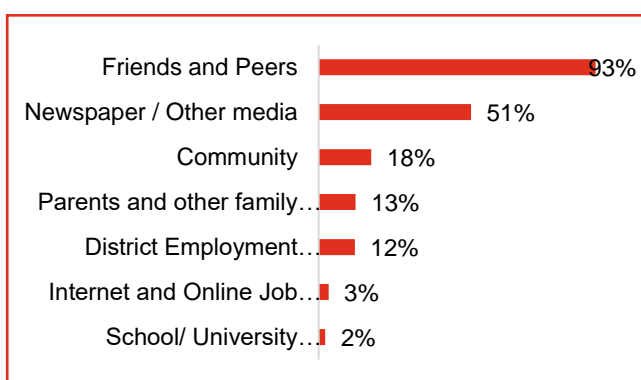
*Figure 22 Preference for Work Location*



Both male and female respondents were largely reluctant to migrate outside of their hometown for the purpose of employment. However, 37% of the male respondents were willing to move within their District for the same in comparison to only 10% of the females.

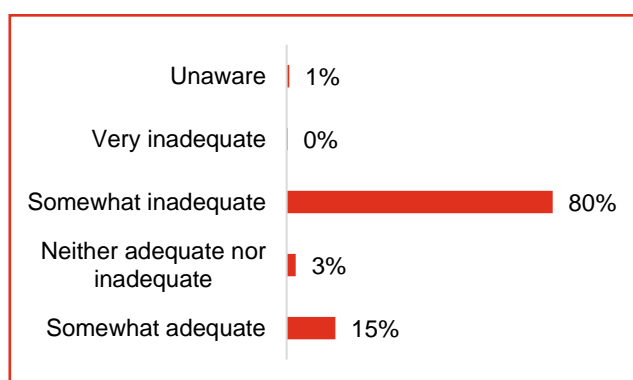
\*Multiple response question, sum may exceed 100%,

*Figure 23 Sources for Job Information*



Multiple response question, sum may exceed 100%, n=360)

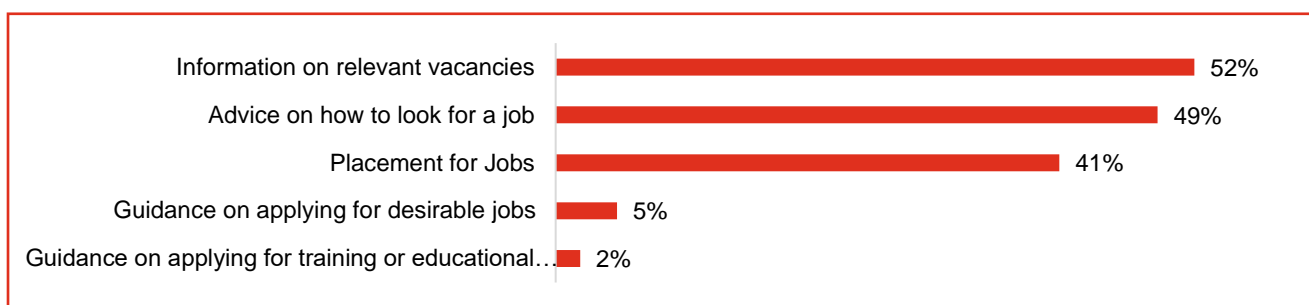
*Figure 24 Perception on Counselling Services*



The most important source for Job related information was 'friends and peers' (93%) followed by 'newspapers and other media' (51%). The community, parents and family play a secondary role. The District employment office was identified as a source by only 12% of the respondents. 80% of the respondents felt that the counselling services were not adequate in meeting their requirements. The key inputs requested by the respondents from career counselling services include 'information on relevant vacancies' (52%), 'advice on seeking jobs' (49%) and 'placement support' (41%)



Figure 25 Key requirements from career counselling



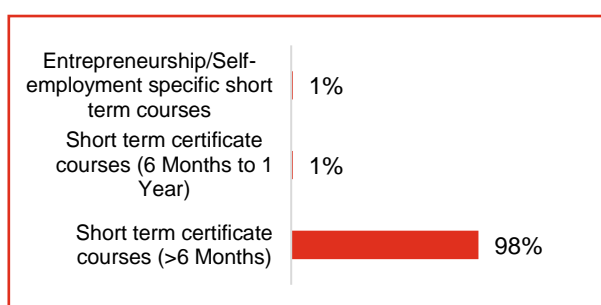
Multiple response question, sum may exceed 100%, n=360)

## 2.6. Skill Training Preferences of Youth



About 16% of the respondents had any awareness of Govt. run vocational programs while only 3% had undergone any vocational training previously. 31% of the respondents were interested in undertaking any vocational training. Of these respondents, 98% wanted the trainings to be short term certificate courses and an equal percentage wanted the courses to be part time in nature. Though the respondents weighed most aspects of a training program (Table 17) as being important, they were mostly concerned with the reputation and recognition of the certifying authority and practical exposure (both 77%) followed by quality of internship and apprenticeship training (76%).

Figure 26 Skill Training type interested in



(n=112)

Figure 27 Skill Training Full-time vs Part-Time

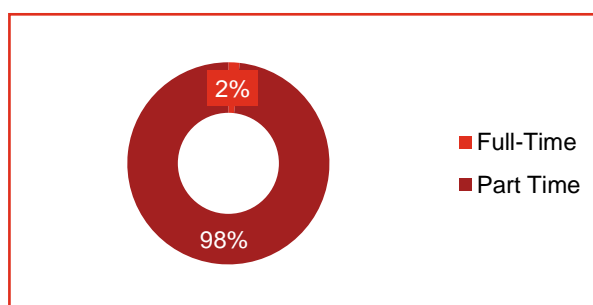


Table 17 Importance of different aspects of Skill Development

Factors	Important / Very Important	Somewhat Important	Unimportant
Training Content	73%	20%	7%
Reputation of the training service provider	61%	28%	11%
Reputation of the certifying body	77%	18%	5%
Quality of training	74%	18%	8%
Practical Exposure	77%	17%	6%

Factors	Important / Very Important	Somewhat Important	Unimportant
Internship/apprenticeship quality	76%	17%	7%
N	112		

### 3. Employers' and Other Stakeholders' Perspectives

The study covered employers, industrial associations and other key stakeholders to understand the demand side perspectives of skills. The information was collected through both quantitative survey and qualitative approaches including 'in-depth interviews' and 'focus group discussions'.

#### 3.1. Employers' Perspective

The survey covered 47 Industries from 11 sectors, with majority of respondents belonging to the metal & fabrications, Auto and Auto components sectors, which are one of the highest contributors to the local economy. 39% of the industries were in operations for more than 15 years. 74% of the industries surveyed reported to be in the 'small' industries category while 13% were from the 'medium' Industries category. The selection of the Industries was also based on the labour intensity of the sectors.

Figure 28 Distribution of Industries by Size

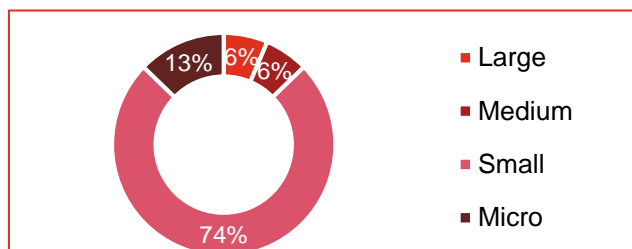


Table 18 Sector wise coverage of Industries in Employer Survey

S.No	Sector	Number of Industries Surveyed	S.No	Sector	Number of Industries Surveyed
1	Metal and Fabrication	15	7	Heavy Machinery	2
2	Auto and Auto Components	12	8	Building / Construction Industry	1
3	Other Manufacturing	6	9	Education and Skill Development	1
4	Others	3	10	IT and ITES	1
5	Textile and Apparel	3	11	Mining & Quarrying	1

66% employers used reference from existing employees or known sources as a mode of recruitment. 'Local community' (28%) was the next common source, followed by campus recruitment from engineering colleges, use of manpower agencies and advertisements in media (19% each). There has been lower uptake from 'job melas', recruitment from vocational programs, social networks or web portals. The most common challenge they face are the high local wages (67%), **lack of core skills (33%)**, lack of prior experience (27%) and candidate disinterest and attitude (22%).

Table 19 Modes and Challenges in Recruitment Process

Key Modes of Recruitment*			Key Challenges faced in Recruitment*		
S.No	Particulars	%	S.No	Particulars	%
1.	Employee Reference	66%	1.	High local wages	67%
2.	Local Community	28%	2.	Lack of requisite core skills	33%
3.	Campus recruitment in Engineering Colleges	19%	3.	Lack of Prior Experience	27%
4.	Manpower Agencies	19%	4.	Candidate Disinterest and Attitude	22%
5.	Advertisements in Media	19%	5.	Lack of requisite soft skills	11%
6.	Job Melas	15%	6.	Attrition/Uncertainty due to marriage and children	7%
7.	Campus recruitment in ITIs/Polytechnic	11%	7.	Requirement of safe working conditions/toilets for Women	7%
8.	Social Networks	11%	8.	Lack of safe transportation	7%
9.	Web Portals	9%	9.	Work hours	4%
10.	Campus recruitment in arts/science/commerce colleges	6%	10.	Nature of work requires strenuous physical labour	2%
11.	Others	6%	11.	Others	4%

\*Multiple response question, sum may exceed 100%

Figure 29 Average distribution of workers by Sex

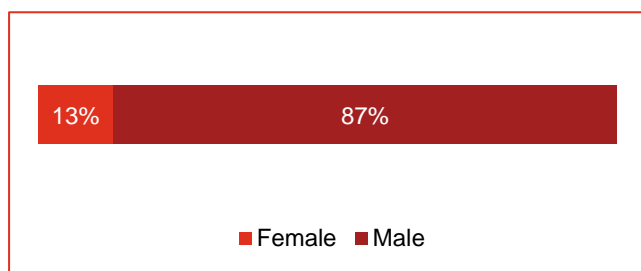
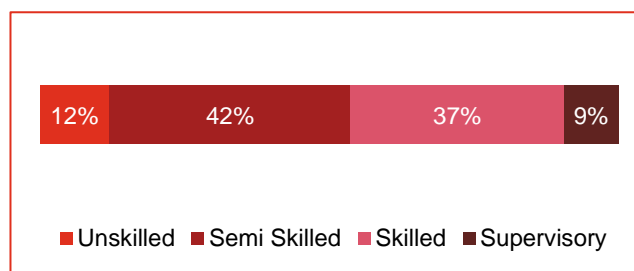


Figure 30 Distribution of workers by Skill Levels



The surveyed industries were largely dominated by a male workers. Textile Industries usually employ a higher proportion of females while the metal / industries are almost entirely dominated by males. Semi-Skilled workers dominated the share of workforce (42%) followed closely by skilled workers (37%). Unskilled workers and supervisory roles constitute marginal share of the workforce.

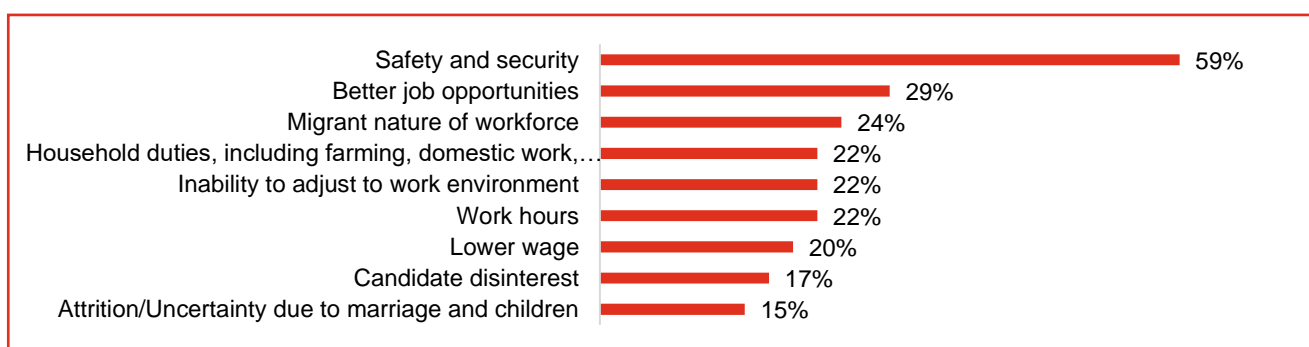
Table 20 Sources of Migrant workers

Sources of Migrant Workers from TN			Sources of Migrant Workers from outside of TN		
S.No	Particulars	%	S.No	Particulars	%
1.	North Tamil Nadu	27%	1.	Eastern India	41%
2.	South Tamil Nadu	85%	2.	Western India	48%
3.	West Tamil Nadu	33%	3.	Central India	59%
4.	Central Tamil Nadu	27%	4.	North Eastern States	19%
			5.	South Indian States	19%
			6.	North Indian States	0%

\*Multiple response question, sum may exceed 100%

While 33 respondents affirmed sourcing migrant workers from other Districts of Tamil Nadu, 27 confirmed sourcing workers from other parts of the country. Among these (33), 85% of the respondents sourced their workers from the southern Districts of Tamil Nadu. Central India (59%), Western India (48%) and Eastern India (41%) were the key sources of migrant workers from outside of Tamil Nadu.

Figure 31 Key causes of Attrition



\*Multiple response question, sum may exceed 100%

The employers estimate 25-30% attrition annually from their workforce. Workers perception of Safety and security in the job was the dominant (59%) cause of attrition. The availability of better job opportunities and the migrant nature of the workforce were other reasons attributed to the high attrition rates. About 26% of the respondents feel there is high growth prospects while 33% of the respondents see high adoption of technology. Among these, one-third of the respondents have already initiated plans in adoption of technology.

Table 21 Growth Prospects and prospective adoption of technology

Growth Prospects of Industry (n= 42)	%	Level of Technology adoption (n= 43)	%	Plans to adopt Technology	%
High	26%	High	33%	Yes	35%
Medium	67%	Medium	63%		
Low	2%	Low	2%	No	65%
Can't Stay	5%	Can't Stay	2%		

The employers see a high demand for both minimally skilled and skilled workers while only 1/5ths of the respondents see high demand for supervisory roles. 90% of the respondents provided some sort of training to their workers. Trainings were largely given for career advancement and domain skills for recruitment.

Table 22 Demand for workers by Skill Level and type of training provided to workers

Demand for Workforce in next 5 years (n=42)				Type of Training Provided for Workers	
	Minimally Skilled	Skilled	Supervisory	Type of Training	%
High Demand	62%	48%	21%	Career Advancement	40%
Medium Demand	31%	50%	56%	Domain skills on recruitment	40%
Low Demand	5%	2%	16%	Induction	7%
None	2%	0%	0%	Up-skilling to meet technical needs	13%

### Key Insights on Skill Development / Training

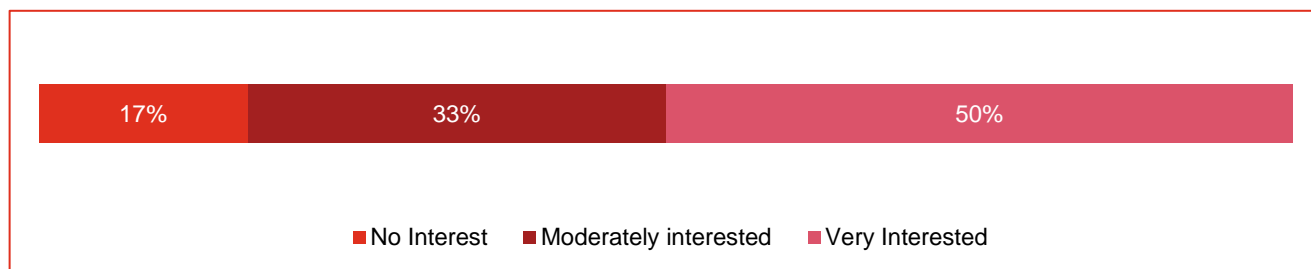
- 37 of the 47 respondents (78%) of the respondents were aware of any vocational programs run by the Govt.
- The highest awareness was about \*216nSDC (7%) followed by the Craftsman \*216raining Scheme and Apprenticeship training scheme. There was low awareness about other schemes.
- Only 7 organizations had recruited from a vocational / skill training program in the previous 3 years
- Of key challenges in recruiting from vocational / skill development programs have been the lack of experience of working in a work environment (39%) and mismatch of skills (30%).
- Half the respondents were key in working with the Govt. on Skill Development Programs

Table 23 Knowledge of Skill Development programs and Challenges

Knowledge of Skill Development Programs	%	Challenges of Recruiting from Vocational / Skill Development Program	%
*216nSDC	76%	Lack of experience in work environment	39%
C*216S	51%	Skills do not match industry requirements	30%
ATS	38%	No Specific Challenge	22%
PMKVY	14%	Lack of sufficient supporting/soft skills	17%
NULM	5%	Lack of quality resources	13%
RSETI	5%	High Attrition Rates	13%
DDU-GKY	3%		

\*Multiple response question, sum may exceed 100%

Figure 32 Interest in working with the Govt. on Skill Development)



## 3.2. Stakeholders Perspective

The study also included in-depth interviews of more than 20 stakeholders including the line departments involved in the Skill Development, Livelihood and Employment and Industrial development related activities, Industrial Associations, Vocational Education and Skill Development institutions among others. A focus group discussion under the aegis of the Coimbatore District Small Industries Association (CODISSIA) and South India Mill Owners Association (SIMA) was held on the 26<sup>th</sup> of February, 2019 to further highlight the perspective of the industries. The key areas of discussions are listed below

S.NO	Topic	Responses
1.	Industrial Growth	<p>The industrial sector have recovered from the external shocks of demonetization and GST. Investments and expansions are on the anvil, especially in Metal &amp; Fabrication, Auto &amp; Auto Component and the textile sector. The proposed defence corridor is expected to be a major thrust in the economic development in the region. The Industries expect to grow by 35% in output in the next 3-5 years. Education is an important sector in the District with extensive network of Schools, Colleges and Vocational Centres. There is a lack of sufficiently trained teachers / trainers in the District.</p> <p>The Infrastructure sector is seeing new developments through expansion of highways, development of a metro rail system and the 'Smart Cities' program.</p>
2.	Labour Supply	<p>All the major industries in the District are labour intensive. The industrialised nature of the region and the cost of living in Urban Areas have driven the cost of labour in the District. This is further augmented by the presence of a strong social security system in the state, which has reduced the opportunity costs for unemployment. In addition, the extended economic area stretches across the Districts of Coimbatore, Tiruppur, the Nilgiris, Erode (in Tamil Nadu), Palakkad and Ernakulam (in Kerala), provides greater opportunity for constant labour migration, especially at the minimally skilled level. The district also ranks 2<sup>nd</sup> in the state in the number of emigrants. The availability of labour is thus constrained across all sectors, (especially in the textiles where it is acute) and at all skill levels, forcing some large industries are considering shifting investments to the Southern Districts of the state.</p>
3.	Women Employment	<p>Female employment is largely focussed in the textile sector among Industries and the retail sector and IT-ITES in the services. The young women often see employment in the textile &amp; apparel sector as temporary. The industry not only gives them a life skill in tailoring, it also provides them an income to support their families or save up for their weddings. Though they might drop out of the labour force in the immediacy of their wedding, they often re-join in times of economic need. Hence there is a constant churn of the workforce in the sector's female employees. The industrialised nature of the District has also resulted in a greater acceptance of females in trades such as welding, CNC machine operations in traditional engineering related sectors. These were hitherto considered male dominated trades. There is interest in agro-business and food processing sectors among the women in the District, especially in Poultry and Dairy which can be tapped into through targeted programs</p>
4.	Youth Aspirations	<p>The aspirations of the youth are largely oriented towards white collared jobs, especially in the IT-ITES &amp; BFSI sectors. However, this doesn't match the needs of the local economy which is dominated by manufacturing. The aspired wage at entry level is economically unviable for small scale industries. However, even large industries face the supply constraints due to reluctance of the youth to take up blue-collared jobs, especially due to widespread notions of lack of amenities and hostile work environment. The industries perceive a preference among the youth for jobs in the services sector, especially in retail, food delivery and cab services over a fixed employment in manufacturing sector.</p>
5.	Training & Skill Development	<p>The awareness about Skill Development programs was moderate, with CTS and ATS schemes being popularly known. There is lower awareness about other short term skilling programs like DDU-GKY. Training infrastructure has been identified as an important lacuna in the District. While long term courses in ITIs meet the requirements for the job roles in demand, the students would require greater exposure to work like environment, upgraded equipment and curriculum. The short term vocational programs are largely focused on select sectors like BFSI, Apparel &amp; Made ups and do not cater to the high end requirements of the local economy. Though Industries have expressed willingness to tie up with the Skill Development programs, they are</p>

		severely constrained (especially small scale industries) by some of the program guidelines and operational issues
6.	In- Migration	The minimally skilled worker requirements are largely fulfilled through migrant workers, ranging between 4-6 lakh people. They are sourced from Eastern and Northern parts of India especially Odisha, Assam, West Bengal, and Bihar. Though they possess minimal skills, they have the tendency to acquire the skills on the job after 3 to 4 years in the same organisation. Many move with their families enabling a longer association with the firms. The major employers of migrant workers are Construction, Textiles and Tourism & Hospitality.
7.	Emigration	The District ranks 2 <sup>nd</sup> in the state in terms of number of emigrants with more than one lakh as per the Tamil Nadu Migration Survey (2014-15). The emigration from Tamil Nadu is dominated by countries in the Gulf Cooperation Council countries which account for nearly half of the emigrants. It is observed that most of the emigrants to these countries are low-skilled labourers in the oil, construction and infrastructure industries. However, in recent times, the demand for such labour is reducing forcing several emigrants to return. <sup>23</sup> Studies have identified roles with higher skills in sectors like Healthcare, Education, Media & Marketing, Transport & Logistics, Engineering, Retail & Consumer and, Banking as the key sectors of growth <sup>24</sup> . It is thus necessary to ensure, the aspiring emigrants are up-skilled / re-skilled appropriately to meet this demand.
8.	Automation	<p>Though technological upgradation is seen across sectors, labour saving automation is largely restricted to Automotive and Metal &amp; Fabrication Sectors. Being dominated by small-scale industries, the scope for automation is lesser in the next 3-5 years. The labour intensity will continue to remain.</p> <p>However, the standards of the new Electric Vehicle policy are expected to be playing a significant change in the required skill sets and competency from the entire Automotive Sector and ancillary units. This is expected to be a major challenge in the upcoming years.</p>

### **Skill Gaps**

Soft Skills especially communication skills, professionalism, flexibility and interpersonal skills were found to be wanting among the existing workers by most of the stakeholders. In the services sector, the conversation skills in English were found wanting in the IT-ITES and the Tourism & Hospitality sector. There is increased investments collaborations by national and international companies in the Industrial sector which value work ethics, professionalism and timeliness among other things. This is a major challenge to inculcate during employment. The Industrial sector would also require greater tenacity, ability to innovate

### **Specific Skill Requirements include**

- Supervisory & design roles in the Engineering Industries, Wet Grinder making, Motor Pumps, Auto and Auto Component & Metals and Fabrication Sectors especially in the use of advanced machines in CAD-CAM, CNC lathes, grinders and mills.
- Supervisory roles in the textile mills to manage entry level skilled workers.
- Motor Vehicle Mechanics especially focussing on the Heavy vehicle segment with computer aided servicing
- Adequate English Communication Skills in the IT-ITES sector
- Receptionists, Tour Guides, Adventure Sports, Cab Drivers among others in the Tourism & Hospitality sector. There is a requirement to learn multiple languages especially, English and Indian regional languages.
- GST Accountants are needed across sectors owing to the recent tax reforms.
- Trainers and Teachers in skill development and education sectors. There is a dearth of adequate soft skill trainers.

<sup>23</sup> Kerala Migration Survey, 2014

<sup>24</sup> Employment and Salary Trends in the Gulf 2015



## 4. Skill Gap Analysis

Incremental Demand<sup>25</sup> for Skilled & Semi Skilled Manpower

The District of Coimbatore is witnessing increased industrialization and urbanization. These are affecting the incremental demand for skilled workforce in the District, where as per our methodology, Manufacturing, Construction and Logistics are the leading sub sectors for employment. Allied sectors of agriculture, Tourism & Hospitality are other sectors driving the demand in the District.

*Table 24 Sector wise Incremental Demand for Skilled and Semi-Skilled Workers 2019-25*

Sector	Incremental Demand for Skilled Workers			Incremental Demand for Semi Skilled Workers			Total Demand
	2019-21	2022-25	Total	2019-21	2022-25	Total	Total
Allied Activities of Agriculture	592	856	1,448	4,145	5,995	10,139	11,588
Mining and quarrying	173	261	434	288	436	724	1,158
Manufacturing	8,151	11,575	19,725	16,301	23,149	39,450	59,175
Construction	3,781	6,201	9,982	9,453	15,501	24,954	34,936
Trade & Repair Services	1,148	1,613	2,760	3,973	5,582	9,555	12,316
Tourism & Hospitality	443	622	1,064	857	1,205	2,062	3,127
Logistics	1,981	2,865	4,846	4,754	6,877	11,631	16,477
Communication	4,061	6,305	10,366	2,031	3,153	5,183	15,550
BFSI	3,693	5,698	9,392	1,847	2,849	4,696	14,087
Real Estate & Business Services	868	1,313	2,181	2,171	3,283	5,453	7,635
Education; Human health & Social Work Activities	5,959	9,054	15,014	4,768	7,243	12,011	27,025
Arts, entertainment and recreation	1,354	1,994	3,347	1,083	1,595	2,678	6,025
Other Services	6,689	9,851	16,540	5,351	7,881	13,232	29,772
<b>Skill Demand</b>	<b>37,259</b>	<b>55,815</b>	<b>93,074</b>	<b>53,100</b>	<b>79,006</b>	<b>1,32,106</b>	<b>2,25,180</b>
<b>Skill Supply</b>	<b>20,619</b>	<b>27,492</b>	<b>48,111</b>	<b>24,255</b>	<b>32,340</b>	<b>56,596</b>	<b>1,04,707</b>
<b>Skill Gap</b>	<b>16,640</b>	<b>28,323</b>	<b>44,963</b>	<b>28,845</b>	<b>46,665</b>	<b>75,510</b>	<b>1,20,473</b>

<sup>25</sup> Incremental Demand Estimates the additional stock of workforce that are to be created given the expected Economic Conditions in the period of study. This may help in estimating requirement for fresh trainings.

## 5. Key Study Findings and Recommendations

### 5.1. District Action Plan

The District level training projects below suggests the potential areas for skill development interventions and job opportunities in the future. It identifies the potential job roles mapped with NSQF linked QPs and the potential of employment opportunities over the next six years with a focus on youth. The job roles have been shortlisted based on the analysis of findings from the skill gap analysis, secondary research, youth aspiration survey, enterprise survey, District level consultations and discussions with industry associations

S.No	Sector	Trades	Target (People)	Budget (₹)
1.	Textile & Apparel	<ul style="list-style-type: none"> <li>Cutting Supervisor</li> <li>Knitting Machine Operator</li> <li>Fabric Checker</li> <li>Quality Checker</li> </ul>	5,000	₹8.85 Crores
2.	Metal & Fabrication / Auto & Auto components Sectors	<ul style="list-style-type: none"> <li>Welder</li> <li>Service engineer- Installation</li> <li>CNC Setter cum Operator- Turning</li> <li>CNC Setter cum Operator - Vertical Machining Centre</li> </ul>	5,000	₹ 8 Crores
3.	Automobile Sector	<ul style="list-style-type: none"> <li>Welder</li> <li>Machining and Quality Technician</li> <li>CNC Setter cum Operator- Turning</li> <li>Automotive Body Painting Technician Level 3</li> </ul>	1,000	₹ 2.43 Crores
4.	Food Processing	<ul style="list-style-type: none"> <li>Broiler Poultry Farm Supervisor</li> <li>Packaging Technician</li> <li>Industrial Production Worker – Food Processing</li> <li>Quality Assurance Manager /</li> <li>Feed Analytical Technical Assistant (TANUVAS)</li> <li>Cold Storage Technician</li> </ul>	3,500	₹7.12 Crores
5.	BFSI	<ul style="list-style-type: none"> <li>GST Accounts Assistant</li> <li>Insurance Agent</li> </ul>	700	₹0.49 Crores
6.	(i) IT/ ITES (ii) Tourism & Hospitality	<ul style="list-style-type: none"> <li>Training for Soft Skills and in spoken English</li> </ul>	8,000	₹7.01 Crores
7.	Healthcare	<ul style="list-style-type: none"> <li>Home Health Care</li> <li>General Duty Assistant</li> </ul>	2,000	₹3.33 Crores
8.	Education & Skill Development	<ul style="list-style-type: none"> <li>Training of Trainers Soft Skills and English for Students</li> <li>Training of Trainers for in Apparel / Textile And other key sectors</li> </ul>	3,500	₹3.55 Crores
<b>Total Training Costs</b>			<b>28,700</b>	<b>₹40.78 Crores</b>

Note:

- The intended target groups are different from the eligibility criteria prescribed as part of the Qualification Pack. Target Group refers to the preferred set of youth who stakeholders have identified are most likely to benefit from the training. This could come from the Aspirations expressed in the Quantitative Survey, feedback from Industry and Govt. Stakeholders. For instance, though a training in handicrafts might require only 5th grade as an eligibility- criteria, the target group would be rural women in a cluster. TNSDC and the TSPs can continue to use the minimum criteria as mentioned in the Qualification Pack; however, qualifications that may constrain an interest-group may appropriately considered on a case-to-case basis (as approved by TNSDC).

2. The QP NOS reference numbers and the training hours have been taken as per the latest QP NOS compilation (as on 17th October 2019). However, in the same compilation, some job roles do not have training hours mentioned. **In such cases, we have taken the average training hours for the sector and NSQF level within the sector and applied those as notional hours.** We have also used insights from field consultations to arrive at training hour estimates which to reflect the market requirements.
3. An attempt was made to map each proposed job role with a QP NOS reference number. **In the cases where accurate mapping has not been possible, we have mapped the job role with the nearest QP NOS reference number.** In cases where we have proposed new job roles, we have indicated that a QP NOS reference is to be designed for the same.
4. The Cost of Training has been calculated using the following method: Each job role has training hours, training target (persons), and a cost category. The cost category has been determined by the National Skills Qualification Framework (NSQF) with respect to the level of capital expenditure and operational expenditure for imparting the course aligned to that specific job role. Therefore, each cost category corresponds to a particular cost norm calculated per trainee per hour. The calculations have been done as per the Government order (H-22011/2/2014-SDE-III) issued by MSDE on 4th January 2019. The categories are defined as follows:
  - INR 42.40 for Category-I
  - INR 36.30 for Category -II
  - INR 30.30 for Category-III

The Cost of training in the project shelves represents the calculation of: (training target × training hours × per hour cost) + (training target × number of days of training × INR 100).

Where:

Number of days of training = training hours / 8

Transportation costs per trainee per day = INR 100

To the figures arising from the above formula, the training and assessment costs (INR 1,000 per trainee × training target for the whole project) has also been added. The total training cost for each project arrived through such a process has been added to the summary table above.

### Training Project 1:

Name of the Project: Training in Textile and Apparel sector							
<b>Key Economic Drivers:</b>							
<ul style="list-style-type: none"> <li>Expected investments through GIM – of Rs. 200 Crores and 2,000 proposed employment</li> <li>3<sup>rd</sup> highest contributor for GVA in 2104-15 and largest employer, with more than 35,000 direct employees</li> <li>Job work Demand from Coimbatore and Tiruppur</li> </ul>							
<b>Key Partners:</b> SIMA, SITRA, TEF, Textile SSC							
Job Roles:	NSQF Level	NSQF Code	Cost Category	Duration of Training	Target Group	Training Target (people)	Cost of Training (₹)
Cutting Supervisor	5	AMH/Q0610	1	320 hours	10 <sup>th</sup> – 12 <sup>th</sup> Class Pass outs Women oriented	3,000	5.27 Crores
Knitting Machine Operator	4	TSC/Q4101 <sup>26</sup>	1	320 hours			
Fabric Checker	4	TSC/Q 2301	1	320 hours			
Quality / Packing Checker	4	TSC/ Q 0501	1	320 hours			
Advance Pattern Maker (CAD CAM)	6	AMH/Q 1101	1	320 hours			
Industrial Sewing Machine Operator	4	AMH/Q0301	1	280 hours		2,000	3.07 Crores
<b>Total</b>						5,000	8 Crores
<b>Total Assessment and Certification cost (₹ 1,000 per candidate)</b>							0.5 Crores
<b>Total Cost</b>							8.85 Crores
<b>Key Considerations:</b>							
<p>The lack of locally available labour has forced the mills to hire migrant workers from other parts of the state and country. However, a vast majority of these workers are minimally skilled and would require considerable mentorship, monitoring and management. There is a huge demand for supervisory roles in the mills in the District and the neighbouring District of Tiruppur where the allied apparel sector is largely centered around. It is necessary to ensure the curriculum is upgraded as per industry requirements orientation with an institute like SITRA with close implementation partnership with local industrial associations. A key requirement would be to provide adequate on the job training in the various mills around the District. These job roles are particularly open to women and a supervisory role may cater to their aspiration.</p>							

<sup>26</sup> Closest QP used, training to be for overall knitting operations

## Training Project 2:

### Name of the Project: Training in Metal & Fabrication / Auto & Autocomponents Sectors

#### Key Economic Drivers:

- Estimated investment potential in Manufacturing Sector of over Rs. 900 Crores with Potential direct Employment of over 1,500 People
- High aspiration of youth
- Estimated 6,000-7,000 CNC machines with three member working teams per shift. Severe challenge in recruiting skilled operators.
- Though workforce of many companies has considerable share (50%) of immigrant workers, there is shortage in the skilled worker / supervisor category with understanding of machines
- Key investments expected as part of Defence Corridor Project

**Key Partners:** CODISSIA, Engineering institutions like PSG, RKM Polytechnic etc., Capital Goods Sector skill council.

Job Roles:	NSQF Level	NSQF Code	Cost Category	Duration of Training	Target Group	Training Target (people)	Cost of Training (₹)
Welder	4	CTS – Welder	1	OJT <sup>27</sup> 480 Hours	10 <sup>th</sup> – 12 <sup>th</sup> Class Pass outs	750	0.33 Crores
Service engineer- Installation	4	CSC/ Q 0502	1	Classroom Training 320 Hours OJT 480 Hours	Women oriented	2,250	4.96 Crores Split as 3.95 Crores (Training) 1.01 Crores (OJT)
CNC Setter cum Operator- Turning	4	CSC/Q0120	1				
CNC Setter cum Operator - Vertical Machining Centre	5	CSC/ Q 0123	1				
Re-skilling for EV Vehicles	5-6	N.A	1	200 hours		2,000	2.2 Crores
<b>Total</b>						5,000	7.49 Crores
<b>Total Assessment and Certification cost (₹ 1,000 per candidate)</b>							0.5 Crores
<b>Total Cost</b>							8 Crores

#### Key Considerations:

The sector faces severe challenge in finding the sufficient skilled workers on advanced machinery required by international clients in the manufacturing sector, especially as CNC operators. There is an urgent requirement to upgrade the infrastructure as well as the curriculum of ITIs/ Polytechnics to meet the industry requirement. This can be prepared in consultation with CODISSIA. The lack of experience in work environment is a major drawback in the hiring of students from such programs. The classroom training can be a general course, later customized to industry requirements during the OJT phase. Though the companies in the cluster are willing to take up OJT, it will be necessary to support the companies with a stipend pay to the student without, which he/she could drop out of the apprenticeship process.

The new electronic vehicle policy which seeks to completely replace new two wheelers in the country by 2022 is a major challenge for industries aligned with the automotive sector. This directly employs 14,000 people as per

<sup>27</sup> OJT Rates taken as per NAPS Scheme. Maximum of ₹1,500 per month per trainee

ASI in addition to another 50,000 to the allied sectors in machinery and equipment manufacturing. It is thus necessary to upskill / re-skill older workers in the District.

### Training Project 3:

Name of the Project: Training for Automobile and Autocomponent Sector units							
Key Economic Drivers:							
<ul style="list-style-type: none"><li>• High Demand from Tamil Nadu State Transport Corporation (TNSTC)</li><li>• Investments more than 200 Crores expected in the auto and Autocomponents sector</li><li>• Most aspirational sector for the youth.</li><li>• Key contributor for District GVA in the Industrial sector</li><li>• Auto and Auto component clusters in Mettupalayam (Lorry body Building) and</li></ul>							
Key Partners: CODISSIA, Automotive Skills Development Council							
Job Roles:	NSQF Level	NSQF Code	Cost Category	Duration of Training	Target Group	Training Target (People)	Cost of Training (₹)
Welder	4	ASC/Q3103	1	320 hours <sup>28</sup>	ITI Students, Polytechnic Graduates	250	0.44 Crores
Machining and Quality Technician	3	ASC/Q3509	1	475 hours		250	0.65 Crores
Automotive Body Painting Technician Level 3	3	ASC/Q3303	1	300 hours		250	0.41 Crores
CNC Setter cum Operator-Turning	4	CSC/Q0120	1	600 hours		250	0.82 Crores
Total						1,000	2.33 Crores
Total Assessment and Certification cost (₹ 1,000 per candidate)							0.10 Crores
Total Cost							2.43 Crores
Key Considerations:							
The sector faces severe challenge in finding the sufficient skilled workers on advanced machinery required by international clients in the manufacturing sector, especially as CNC operators. There is an urgent requirement to upgrade the infrastructure as well as the curriculum of ITIs/ Polytechnics to meet the industry requirement. This can be prepared in consultation with the Industry associations for Automobile workshops. Though the companies in the cluster are willing to take up OJT, it will be necessary to support the companies with a stipend pay to the student without, which he/ she could drop out of the apprenticeship process.							

<sup>28</sup> Approximated with ASC/Q3102

#### Training Project 4:

Name of the Project: Training in Food Processing							
<b>Key Economic Drivers:</b> <ul style="list-style-type: none"> <li>Coimbatore is home to 50% of the state's chicken population and the largest exporter of chicken meat in the country.</li> <li>Animal feed industry contributes to 7% of the Industrial GSVA in the state with more than 2,25 lakh direct employees.</li> <li>The decline of agriculture over recent years can lead to an exodus of labour which can be absorbed into the poultry Industry.</li> <li>One of the aspired sectors of the youth.</li> </ul>							
<b>Key Partners:</b> FICSI, Animal Feed Analytical and Quality Assurance Laboratory, VC&RI, Namakkal							
Job Roles:	NSQF Level	NSQF Code	Cost Category	Duration of Training	Target Group	Training Target (People)	Cost of Training (₹)
Broiler Farm Supervisor (Polutry)	4	AGR/Q4301	2	200 hours	12th class Pass	2,500	2.93 Crores
Packaging Technician (Food Products)	5	FIC/Q7001	1	240 hours	12th Class Pass	400	0.41 Crores
Industrial Production Worker – Food Processing	2	FIC/Q9005	1	240 hours	5th class Pass	2,500	2.57 Crores
Quality Assurance Manager / Feed Analytical Technical Assistant (TANUVAS)	4	FIC/Q7602	1	240 hours	B.Sc. M.Sc.	300	0.31 Crores
Cold Storage Technician	4	FIC/Q7004	3	250 hours	12th Class Pass	300	0.31 Crores
Total						6,000	6.52 Crores
Total Assessment and Certification cost (₹ 1,000 per candidate)							0.6 Crores
Total Cost							7.12 Crores
<b>Key Considerations:</b> <p>The recent decline in the agriculture sector has twinned with the rise of the allied industries, especially livestock. The Districts of Namakkal, Salem, Tiruppur and Coimbatore are home to 65% of the state's chicken population and the largest exporter of chicken meat in the country. This sector is most suited to absorb workers shifting out of agriculture. It is also a favourable Industry for the employment of women.</p>							



### Training Project 5:

Name of the Project: Training for BFSI Sector							
Key Economic Drivers:							
<ul style="list-style-type: none"><li>• Tax reforms and the implementation of the Goods &amp; Services Tax regime has necessitated the requirement for a specialised role in each organization to ensure compliance to the necessary rules by both suppliers and customers.</li><li>• Increasing formalisation of the economy provides impetus to the impetus to risk mitigating instruments like Insurance.</li></ul>							
Key Partners: BFSI Sector Skill Council, ICAI, ICSI, ICWAI, Local Industrial Associations							
Job Roles:	NSQF Level	NSQF Code	Cost Category	Duration of Training	Target Group	Training Target (People)	Cost of Training (₹)
GST Accounts Assistant	4	BSC/Q0910	3	100 Hours	Graduates who have completed courses from Degree Colleges, Engineering Colleges	500	0.22 Crores
Insurance Agent / Life Insurance Agent	4	BSC/Q3801 BSC/0101	3	225 hours		200	0.19 Crores
Total						700	0.41 Crores
Total Assessment and Certification cost (₹ 1,000 per candidate)							.07 Crores
Total Cost							0.48 Crores
Key Considerations:							
The sector is seeing the loss of traditional job roles like ‘teller’ to automation. However, there are newer areas like GST accounting and Insurance which are seeing greater demand.							

## Training Project 6:

Name of the Project: Training for Soft Skills and English Communication							
<b>Key Economic Drivers:</b>							
<ul style="list-style-type: none"> <li>Lack of communication skills has been identified as a major contributor towards unemployment of the youth in Coimbatore</li> <li>Coimbatore is fast emerging as secondary hub for IT/ITES sector in the state with establishment of TIDEL Park, ELCOT Park among others</li> </ul>							
<b>Key Partners:</b> Bharathiar University, British Council							
Job Roles:	NSQF Level	NSQF Code	Duration of Training	Cost Category	Target Group	Training Target (People)	Cost of Training (₹)
Training for Soft Skills and in spoken English	4	MEP/ N9995. & MEP/ N9993	180 hours <sup>29</sup>	3	Graduates who have completed courses from Degree Colleges, Engineering Colleges	8,000	6.2 Crores
<b>Total Assessment and Certification cost (₹ 1,000 per candidate)</b>							0.80 Crores
<b>Total Cost</b>							7 Crores
<b>Key Considerations:</b>							
<p>Soft skills especially, communication skills, interpersonal skills, work ethics etc. has been identified as a major contributor towards the low employability for the youth. In addition, the IT-ITES Sector / Tourism &amp; Hospitality sectors have highlighted the requirement for good communication skills in English.</p> <p>Kerala's Additional Skill Acquisition Program and Andhra Pradesh's Employability Skill Centers are models that have similar components of Soft Skill and English Communication</p>							

<sup>29</sup> Hours based on addition of QPs - MEP/ N9995. & MEP/ N9993, and feedback from Industry

## Training Project 7:

Name of the Project: Training for Healthcare							
Key Economic Drivers:							
<ul style="list-style-type: none"> <li>Ageing Population with 17.1% of the population expected to be over 60 years in 2025 compared to 11% in 2011.</li> <li>Aspirational for youth</li> <li>Tamil Nadu Govt. has announced plans to extend provide palliative care to all 385 blocks of the District</li> <li>Universal Healthcare schemes at the central and state level are being rolled out.</li> <li>Key recommendation of the 2018, IIT Madras study on Universal Health Care was the training of Village Health Nurses (VHNs).</li> </ul>							
Key Partners: Healthcare Sector Skill Council, Dept. of Health –Govt. of TN.							
Job Roles:	NSQF Level	NSQF Code	Cost Category	Duration of Training	Target Group	Training Target (People)	Cost of Training (₹)
Home Health Care Aide	4	HSS/Q5102	2	240 hours	Graduates who have completed courses from Degree Colleges,	1,000	1.17 Crores

### Training Project 8:

Name of the Project: Training of Trainers Center							
<b>Key Economic Drivers:</b> <ul style="list-style-type: none"> <li>• Important Education hub of the state with the largest concentration of school and higher education institutions and vocational training centres in the state outside of Chennai Metropolitan area.</li> <li>• Lack of quality trainers have been highlighted for skill trainers as well as the lack of soft skills among students passing out of education institutions across the District and its vicinity.</li> </ul>							
<b>Key Partners:</b> Bharathiar University, British Council, Sector Skill Councils							
Job Roles:	NSQF Level	NSQF Code	Cost Category	Duration of Training	Target Group	Training Target (People)	Cost of Training
Training of Trainers Soft Skills and English for Students <sup>31</sup>	6	ASAP-CET	3	160 hours	Graduates who have completed courses from Degree Colleges, Engineering Colleges	1,500	1.8 Crores
Training of Trainers for in Apparel / Textile And other key sectors <sup>32</sup>	N.A	N.A.	3	100 hours	Graduates / Experienced individuals in the sector	2,000	2.4 Crores
<b>Total</b>						3,500	3.20 Crores
<b>Total Assessment and Certification cost (₹ 1,000 per candidate)</b>							0.35 Crores
<b>Total Cost</b>							3.55 Crores
<b>Key Considerations:</b> <p>Soft skills especially, communication skills, interpersonal skills, work ethics etc. has been identified as a major contributor towards the low employability for the youth. In addition, the IT-ITES Sector / Tourism &amp; Hospitality sectors have highlighted the requirement for good communication skills in English. Kerala's Additional Skill Acquisition Program has developed a training curriculum for Soft Skills and English. This could be used as a draft for the curriculum. The Center would cater to the requirements of other neighbouring Districts.</p>							

<sup>31</sup> Based on Communicative English Trainer Q File - <https://www.nqr.gov.in/qualification-title?nid=3223>

<sup>32</sup> Based on average time and cost as per SSC master training programs. It is to be noted that the SSCs haven't qualified the trainer roles under the occupational maps.

## 5.2. Key Recommendations

Study findings reveal that there is an emerging demand for skilled workforce in the District with several investments lined up within the District. However, access to skills, livelihoods and gainful employment varies across the District. Technical skills, lack of soft skills, aspirations, migration patterns and access to financial institutions emerge as key impediments in the employment of youth. However, it also emerges that there are opportunities for the youth, especially in sectors like manufacturing, food processing, tourism and trade among others.

Recommendation on key interventions that need to be taken up in order to foster the participation of youth in the economy are as follows:

### Industry engagements:

- There is considerable awareness on Skill Development initiatives among industries in Coimbatore. However, several industries, (especially small-scale industries) have faced challenges in partnering skill development initiatives including the apprenticeship scheme. There is a requirement for innovation and reforms in terms of input requirements (capital / turn over, class room infrastructure), stipend support, and program management to provide industries with greater incentives to promote skill development.
- Industries need to create a positive image about the work environment, especially in the manufacturing sector. There is a worry among youth on the safety and work environment (treatment of workers, professionalism, transport, toilet facilities etc.) of Industries and there is an urgent requirement for branding the industries as attractive places to work. Representatives from industrial units could engage with institutions to provide career guidance, soft skills training, internships etc. to attract youth from a young age.

### Market linked Trainings:

- The job markets of the entire region from Ernakulam till Erode are accessible to the District's labour force and they commute on a daily / weekly basis for work. Thus, the skills need to cater to the extended economic region and not only to the local market. Similarly, the trainings should also cater to the changing requirements of the international markets, especially in the GCC countries which are seeing a rapid change in labour demand. The Institute Management Committees (IMCs) should be further strengthened apart from constituting necessary District and regional forums to dynamically adapt curriculum through Industrial feedback. Using National Occupational Standards (NOS) based assessment and certifications could aid this process.
- The higher levels of education attainment in the District provide an opportunity to train youth in courses which are at a higher levels of the NSQF, especially at supervisory roles and those with higher technological requirements. ITIs and polytechnics, should increase the exposure to advanced machinery or content (like safety) to make the candidates job ready. 'Automotive', 'Light Engineering', 'Metal & Fabrication', 'Food Processing', and 'Education' sectors are key areas of employment potential require augmentation of training capacity.
- Internships, apprenticeships and in-plant training exposure are required for the youth to understand both the hard skills and soft skills required for the work. Employers report a lack of orientation towards the work environment including lack of punctuality, professionalism among recruits. To enhance the value of the programs at the graduate level, it is necessary to strengthen the exposure to work environments among both technical and non-technical programs through mandatory hands-on training at appropriate organizations in the industrial and services sectors.
- English and ICT skills are to be given to Arts & Sciences students through an added skill program to improve their employability. In addition, it is necessary to ensure trainers are also abreast of the latest trends in the Industry through special training programs

### Convergence:

- Convergence and coordination is required between various departments of the Government especially between the Training & Employment wings of the Dept. of Labour, Employment and Training, the District industries Centre, other line Departments implementing skill development including the RURBAN Mission which is implementing both the DDU-GKY and the NULM scheme in the state.

- The parallel implementation of Skill trainings by several departments can lead to the following (i) Misallocation of training capacity with multiple programs offering the same trades; (ii) Duplication of Beneficiaries without a de-

## 5.3. Case Studies

### 5.3.1. Upskilling in Automotive Sector

#### Background:

The Government ITI, Mettupalayam Road under the aegis of the TNSDC conducted short term trainings in the Automotive Service Technician (Two and Three Wheelers) trade. The target group for the trainings were local youth who had completed Primary or Upper Primary education and were largely employed informally in the automotive sector. The objective of the training was to utilise the infrastructure of the ITIs to provide modular trainings to local youth in the evenings. This not only improved the utilisation of the ITI infrastructure, it also provided an avenue for the youth to pursue a part-time training post work.

#### The Initiative:

Since 2017-18, the ITI has trained over 100 youth across the District in the trade, especially through the Two Wheeler Repair & Maintenance workers Association. Though many of the youth had previous experience in working as mechanics, they were not formally trained and felt a challenge (including accessing credit) without formal recognition of their skills. The skill training program helped them gain a systematic understanding of their own trade. These included approach to identify problems in a vehicle from a theoretical perspective, the instruments and the method to be used to detect problems and aspects of safety. The training also helped the youth to work in an organized manner increasing their efficiency.

After the completion of the training, several trainees were able to take up self-employment across the District and in the neighbouring Districts. The training program which also provided inputs on personal financial management, access to credit helped many access the funds from Govt. programs to start their own



#### Innovation:

They set up a group on a Social Media platform named the “Expert Mechanics Group”, with over 240 members from across the state, they were able to create a knowledge sharing platform for learning skills from one and another and troubleshoot when required. They also work together as an informal aggregator, providing service to all ranges of motor cycles including premier ones on a phone call, including sourcing the required spares.



The local Two Wheeler Repair & Maintenance Workers Association had plans of setting up a training centre, especially for advanced vehicle brands like KTM, Royal Enfield, Aprilia, Yamaha, Honda, and Suzuki. The skill training program has helped them refine their plans and has also inspired them to provide trainings under programs like the TNSDC and PMKVY. A skill training infrastructure has been set up at the cost of ₹70,00,000 in Coimbatore to provide such trainings. Members of the group have gone on to participate in Skill Competitions at the National Level and won several accolades.

**Top:** Certification Distribution in Govt. ITI for successful Candidates

**Bottom:** Skill training being provided by the Two Wheelers repair and Maintenance association.



**GOVERNMENT OF TAMILNADU**  
TAMILNADU SKILL DEVELOPMENT CORPORATION  
STATE COUNCIL FOR VOCATIONAL TRAINING  
**SKILL TRAINING CERTIFICATE**

SI No.TNSCVT A 06386





Thiru / Tmt / Selvi SARAVANAKUMAR.S

Son / Wife / Daughter of Thiru SUBRAMANI

Reg. No. 561922154716 having completed the course of

Training at GOVERNMENT INDUSTRIAL TRAINING INSTITUTE,  
COIMBATORE - 29.

sponsored by TNSDC and passed the prescribed test in the Trade of  
AUTOMOTIVE / TWO WHEELER REPAIR & MAINTENANCE

QP Code : \_\_\_\_\_ held on 09-November-2018 is awarded  
this Skill Training Certificate

Period of Training : 12-Mar-2018 to 20-Jun-2018

Date of Birth : 06-June-1983

  
**Secretary**  
State Council for Vocational Training  
Directorate of Employment and Training  
Chennai - 32

**Castrol SUPER MECHANIC**

**TOP 8 PRESENTING CONTESTANTS**

WHO WILL CONTEST FOR THE  
ULTIMATE BRAGGING RIGHTS, TO BECOME  
"THE CASTROL SUPER MECHANIC 2019"  
IN A 3 EPISODE SKILL CONTEST WHICH WILL BE  
AIRED ON ZEE NETWORK IN AUGUST 2019  
:: WATCH THIS SPACE FOR MORE...

BIKE CONTESTANTS		CAR CONTESTANTS	
 BALIBOYINA RAO Visakhapatnam	 MANIKANDAN K Coimbatore	 NASIM AHMAD New Delhi	 HARDEVSIKH JADEJA Morbi
 PARMAR DEVSHIBHAI Junagad	 PRAVESH RAWAT Bulandshahr	 DHARMARAJ Tirupur	 FALDO KAUSHIK Rajkot
 SANJIT GHOSH Howrah	 VIJAYAKUMAR Coimbatore	 K. JAYAVEL Chennai	 RAVIKUMAR HARPAL Jetpur
 SARAVANAKUMAR S. Coimbatore	 KISHOR GATADE Kolhapur	 JITESH DABHI Morbi	 MANDJ TYAGI Bahadurgarh

**Castrol SUPER MECHANIC**

**Top:** Skill Training Certificate provided by TNSDC

**Bottom:** Three of the top-8 mechanics Castrol Super Mechanic 201, a national contest in the bike category were from the Coimbatore District. Including the winner, Mr. Saravanakumar.S.



### ***5.3.2. Skill Development Training with Private Participation.***

#### **Background:**

The Industrial Training Institute run by the Ramakrishna Mission is located in Periyanaickenpalayam on the Coimbatore Mettupalayam highway. Founded in 1951, it has provided more than sixty eight years of training to the students of the District and outside. With a capacity of 250 students, it has been sanctioned 10 trades including the following under the NCVT:

#### **2 Year Program**

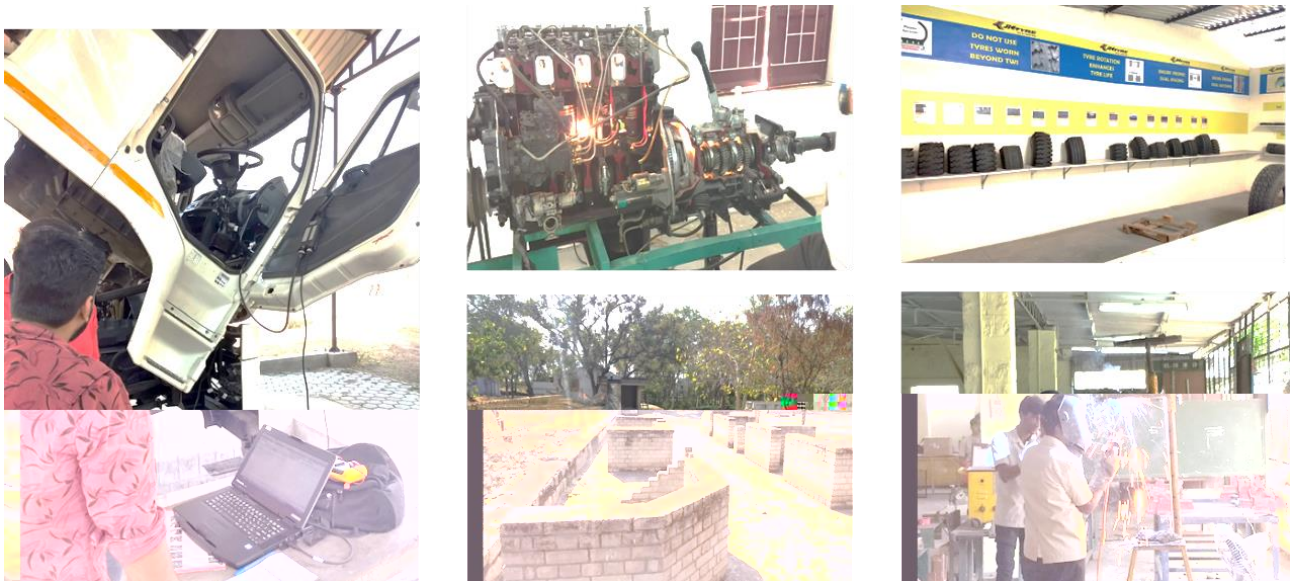
1. Draughtsman Mechanical
2. Draughtsman Civil
3. Turner
4. Machinist
5. Electronics Mechanic
6. Electrician
7. Fitter
8. Mechanic (Motor Vehicle)
9. Wireman

#### **1 Year Program**

10. Welder (Gas & Electric)

#### **Innovations:**

- The ITI has brought in innovations by tying up with leading industries in the vicinity including Lakshmi Machine, Pricol etc. apart from several Medium and Small Units in the District for apprenticeship and placement of students.
- It has tie ups with leading industrial companies including Eicher and JK Tyre to enable the exposure to modern machinery to the students. In return the companies get infrastructure to train their own personnel.
- The ITI also houses a practical Civil engineering Lab. The ITI has tied up with the local builders association to conduct trainings for masons / supervisors. It has also enrolled itself in the Skill Development scheme under the TNSDC.
- The, quality of training, placement assurance and the environment has motivated to opt for the program in spite of a fee based program, indicating the availability of a market for such models of skill development.



**Clockwise from Left:** Eicher Vehicle serviced using digital technology. Cross section of a HMV engine, JK Tyre Lab, Construction Lab and Welding being undertaken by students with appropriate safety gear.

# Appendix

## **A.1. Methodology for Block Selection for Youth Aspiration survey**

### **Sampling Design for Youth Survey**

A total of 360 youth was surveyed in the District, which included youth in both self-employment and wage-employment, unemployed youth, youth on education system, and youth under NEET category to get a balanced representation of various socioeconomic and demographic characteristics of the population.

#### **1. Students from educational and training institutions:**

The list of General arts/science/commerce colleges, engineering colleges, polytechnic colleges and Industrial Training Institutions was obtained. A list of educational institutions was randomly sampled from the list. Of the selected institutions, a list of randomly selected students were interviewed.

#### **2. Household Level Survey:**

In the selected blocks, few villages and wards were randomly selected. After consultation with the head of the village/ward, a sample of households was selected.

#### **3. Self – Employed Youth:**

To cover Self – Employed Youth in the sample, a roster of beneficiaries from the Pradhan Mantri Employment Generation Programme (PMEGP) shall be randomly selected from the list which will be obtained from the concerned authority at the District level.

#### **4. Employed in the informal sector:**

The youth from unorganized sector were identified at the cluster-level after obtaining and examining the list of enterprises that are not registered and those workers were doing job-work type of activities.

### **Selection of Block**

We conducted the survey in six blocks in Coimbatore with the following stratification - two high performing, two moderate performing and two low performing industrial blocks. To ascertain and rank the blocks into the categories, a multi-faceted approach was undertaken which is outlined as follows. It is to be noted that the ranking of the blocks is on a relative basis that is, ranked with respect to the District and not on a generalized scale.

For categorizing the blocks into High, Medium and Low, we used four data points. We chose variables such as the Count of MSME Clusters, the Number of TANSIDCO Industrial Estates, the Number of SIPCOT Industrial Estates and finally the outstanding credit annual data from the Aggregate Deposit and Bank Credit of Scheduled Commercial Banks (SCBs) at Centre-Level.

Geographic Information System (GIS) was used to capture the Latitude and Longitude of the individual locations of the Centre (RBI Centre – Credit data), MSME Clusters, SIDCO and SIPCOT Industrial Estates. The same were mapped to the respective blocks by overlaying the locations onto the block map of Tamil Nadu. For enabling aggregation of data at block-level and mapping the location, the block-level map of Tamil Nadu was digitised using in-house GIS technologies.

#### **a. RBI's centre level banking data**

The RBI's quarterly release of centre level banking data reports the volume of credit and deposits, and the number of accounts and branches for every centre consisting more than at least three branches in for every centre across India. A centre, as per the definition of the RBI, is a self-governing revenue generating body such as a Municipal Corporation and Municipal Council. Given that banking data serves as a good indicator for the level of economic development in a block, these centres shall be mapped to their respective blocks and the aggregates of the centre level data for every block shall be considered to determine the level of industrial performance.

#### **b. DCMSME Reports**

The Development Commissionerate of Micro Small and Medium Enterprises reports the industrial performance at the District level on a yearly basis. The DCMSME reports the prominent industrial clusters in these Districts.

The same was collected and mapped to the respective blocks in order to identify blocks with high industrial performance.

**c. Cluster Observatory Data for Tamil Nadu**

The Cluster Observatory run by the Foundation of MSME Clusters (FMC), Ministry of SSI reports the prominent industrial, MSME, Handicraft, Handloom and Service clusters for all the states in India. The clusters reported for Tamil Nadu was used to identify the blocks with high industrial activity.

**d. List of SIDCO and SIPCOT estates in Tamil Nadu**

In addition to the same, the presence of an industrial estate and its years of operation serve as good indicators for the level of industrial activity of a block. Hence, the list of SIPCOT and SIDCO estates across Tamil Nadu was obtained and was mapped to their respective blocks. As for the individual scores for the variables such as the Count of MSME Clusters, 'Number of SIDCO Industrial Estates' and 'Number of SIPCOT Industrial Estates', the scores were awarded based on the aggregate number with each number carrying a score of 10, 10 and 100, respectively.

For 'credit data' variable, to accommodate regional differences, percentile calculation was employed at the District-level grouping. The final score of each block was arrived at by considering individual score weights. 25% weights was assigned to MSME and TANSIDCO clusters, 5% weights was assigned to SIPCOT industrial estate clusters and 45% weights was assigned to annual centre-level credit data post awarding of the scores.

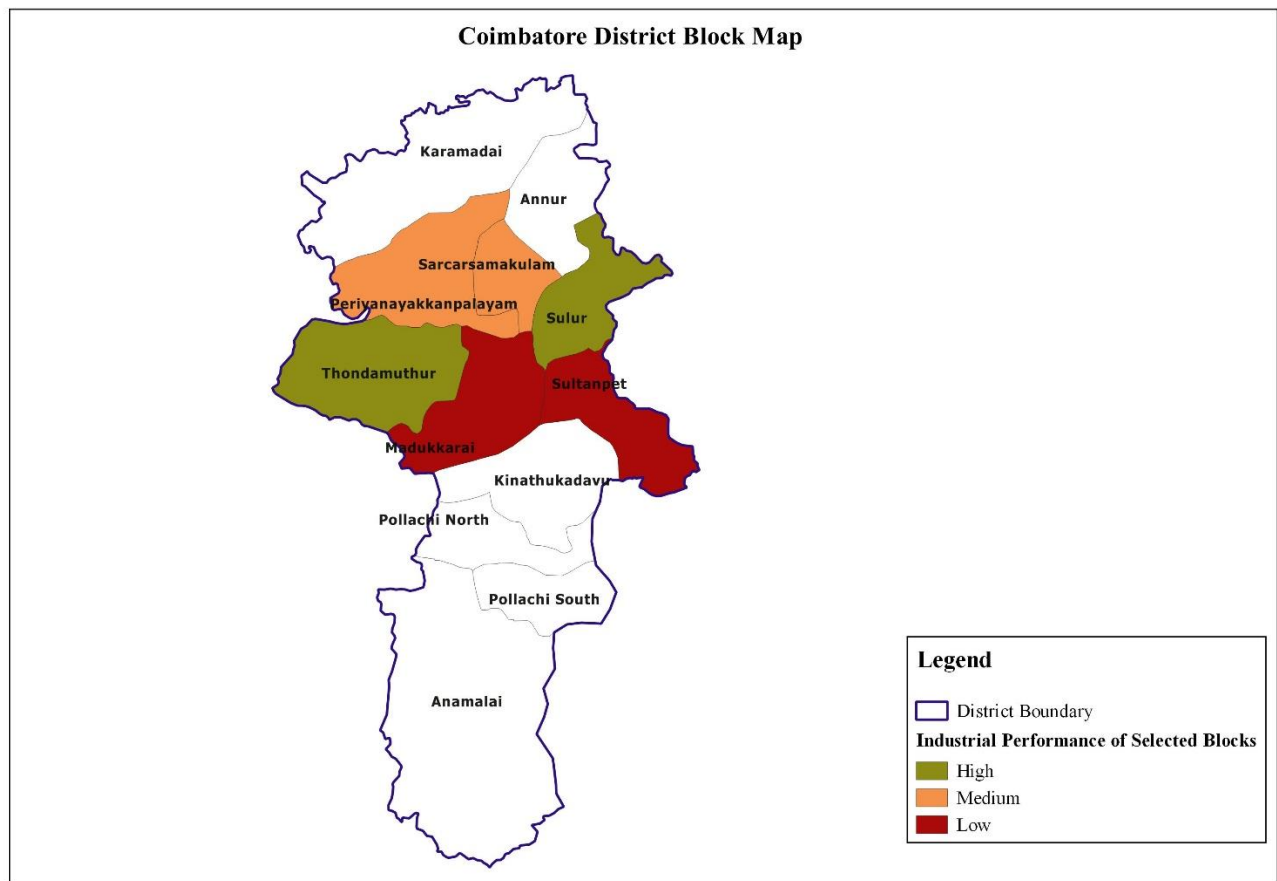
Based on the weights, the total score of each block was calculated. The total score was capped at 100.

The blocks were then categorized as High/Medium/Low, the total score was then converted into percentile values and was categorized into three groups – 0 to 33.33th percentile values for Low, 33.33 to 66.67 percentile value for Medium and 66.67 to 100 percentile values for High. The percentile values were calculated with respect to each District as the base, to accommodate for regional differences. These were triangulated using the Govt. of Tamil Nadu published list of backward blocks in each the District.

Following this, two blocks were randomly selected from each of the category, as per the mentioned classification. Based on this, the following blocks were selected in Coimbatore

- Low- Madukkarai, Sultanpet
- Medium – Periyannayakkanpalayam, Sarcarsamakulam
- High – Sulur, Thondamuthur

Figure 33 Map of Selected Blocks

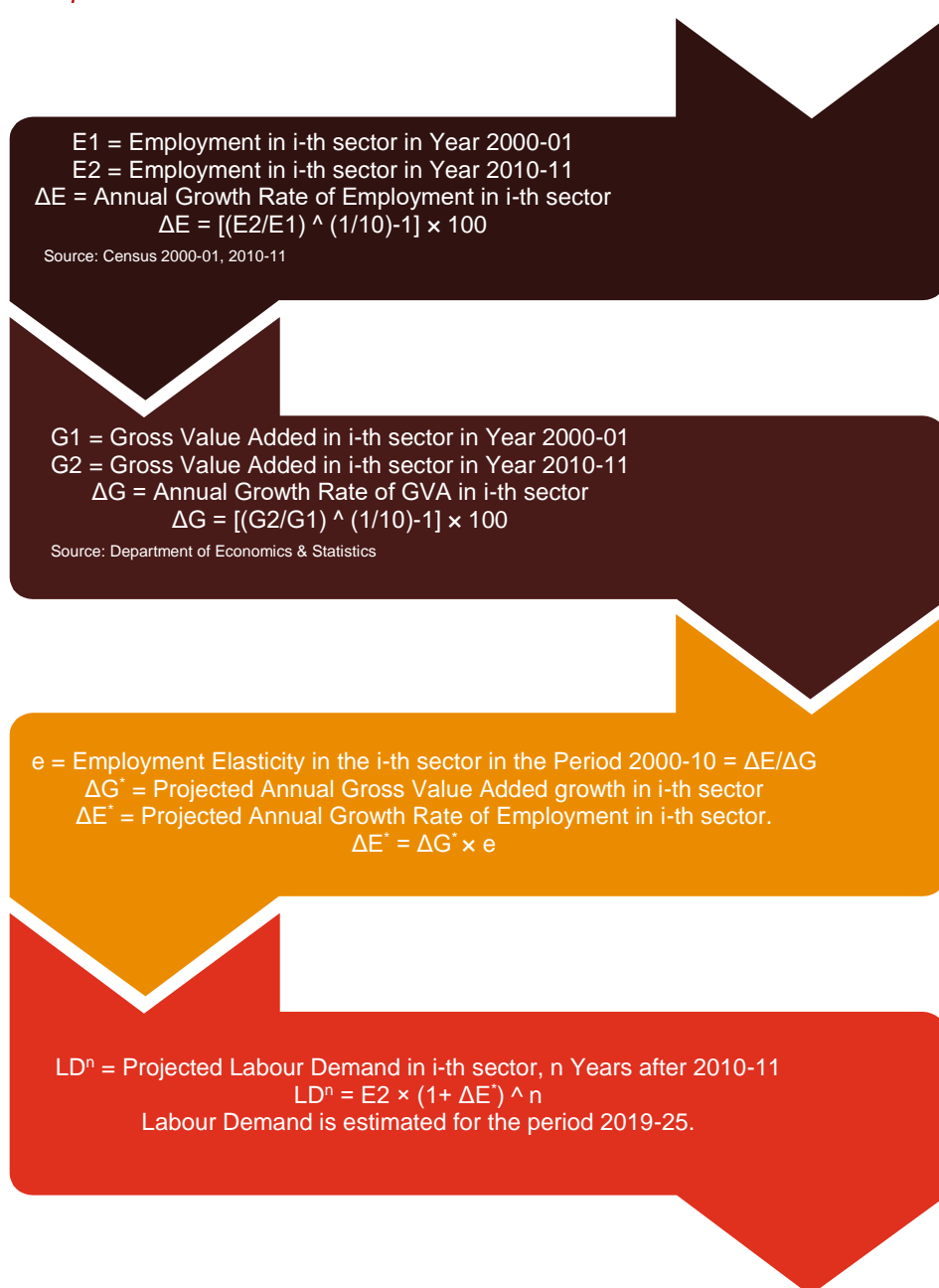


## A.2. Methodology for Present and Future Labour Demand – Supply and Gap Estimation

### Demand Estimation:

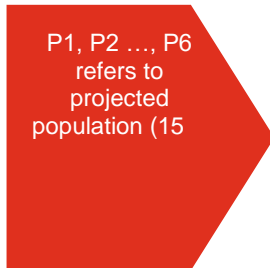
We adopted employment elasticity approach to forecast the labour demand. Employment elasticity is the measure of percentage change in employment associated with one percentage change in economic growth. The employment elasticity approach indicates the ability of an economy to generate employment opportunities. We estimated sector specific employment elasticity using historical data and assumed it to remain constant in the near future. If the estimated sector specific elasticities at District level varied significantly with national and state level estimates, we rationalized the estimated elasticities based on national and state level trends. Automation and sector specific investments are other factors considered before arriving at the final labour demand estimates in different sectors. While some jobs may become obsolete with the technological advancement, new opportunities will arise for professionals who understand technology. Therefore, demand estimates were further revised based on employer consultation. The flowchart below explains the step involved:

Figure 34 Steps for Demand Estimation



## Supply Estimation

We estimated the average incremental supply of labour for the period 2011-16 and assume it to remain constant for the period of 2019-25. Although the population (15 & above) is increasing, the labour force participation is decreasing in the state<sup>33</sup>. The labour force participation rate may continue to follow the decreasing trend, especially for the age category 15-29 years, primarily because of increasing economic well-being, high educational aspiration and higher salary expectations. The flowchart below explains the step involved in supply estimation:



---

<sup>33</sup> Report on Employment-Unemployment Survey, 2011-12, 2012-13, 2013-14, 2015-16 & 2017-18.

### A.3. Credit Outstanding by Occupation - Coimbatore

The Credit Outstanding in each sector as measured by the Reserve Bank of India, indicates the key economic drivers by both size and growth rates. The occupation wise data is presented below:

Table 25 Credit Outstanding by Occupation - RBI

S.N o	Industry category as per RBI	Amount in INR Crore				
		2013-14	2014-15	2015-16	2016-17	CAGR (Between 2013-14 and 2016- 17)
1	Textiles	13,953	13,748	13,672	13,333	-2%
2	Retail Trade	3,284	3,581	3,951	3,956	6%
3	Engineering	2,822	2,815	3,042	3,588	8%
4	Food Manufacturing & Processing	3,026	3,254	3,568	2,800	-3%
5	Wholesale Trade	3,862	3,845	3,038	2,564	-13%
6	Basic Metals & Metal Products	2,969	2,541	2,401	2,269	-9%
7	Gems and Jewellery	1,310	1,840	1,254	1,735	10%
8	Construction	1,248	1,275	1,350	1,228	-1%
9	Paper, Paper Products & Printing	1,252	1,298	1,254	1,217	-1%
10	Electricity, Gas & Water	552	739	681	1,212	30%
11	Transport Operators	625	613	662	714	5%
12	Vehicles, Vehicle Parts & Transport Equipments	425	769	640	643	15%
13	Tourism, Hotel & Restaurants	364	264	315	361	0%
14	Rubber & Plastic Products	195	223	264	318	18%
15	Chemicals & Chemical Products	398	422	402	307	-8%
16	Beverage & Tobacco	271	272	341	266	-1%
17	Manufacture of Cement & Cement Products	346	327	260	254	-10%
18	Woods and Wood Products	170	182	208	180	2%
19	Mining & Quarrying	106	141	120	76	-11%
20	Recreation services	30	69	76	44	14%
21	Petroleum, Coal Products & Nuclear Fuels	20	42	17	30	15%
22	Leather & Leather Products	18	23	21	29	18%
23	Other Industries	679	553	807	593	-4%

## A.4. List of Stakeholders Consulted

S.No	Stakeholder	Category
1.	Joint Director Training	Govt. official
2.	Joint Director Employment	Govt. official
3.	District Skill Development Officer	Govt. official
4.	District Employment Officer	Govt. official
5.	District Industries Center General Manager	Govt. official
6.	DDU-GKY Program Officer	Govt. official
7.	Southern India Mills Association	Industry Association
8.	Coimbatore District Small Industries Association	Industry Association
9.	Texpreneurs Federation	Industry Association
10.	The Auditors Association of South India	Industry Association
11.	Principal Govt. ITI	Training Service Provider
12.	Training Officer	Training Service Provider
13.	Ramakrishna Mission ITI & Polytechnic	Training Service Provider
14.	Avinashilingam University -	Training Service Provider
15.	The Chennai Silks	Industry
16.	Jayanthi Industries	Industry
17.	Best Forgings India Pvt. Ltd.	Industry
18.	Sri Ganesh Engineering	Industry
19.	Excel Fasteners	Industry
20.	Jeyam Enterprises	Industry
21.	Sree Meghala Foundry	Industry
22.	Prim Engineering	Industry
23.	Ananda Vinayak Ideas	Industry
24.	Ready Tech Solutions	Industry
25.	L G Balakrishnan & Brothers Ltd	Industry
26.	Sri Kannapiran Mills	Industry
27.	Shree Shakthi Industries/Shree Shakthi Loomz	Industry
28.	Sarvamangala Engineering	Industry
29.	Ba Metal Processing	Industry
30.	Vlx Ring Travellers Pvt.Ltd	Industry
31.	Sri Ayyappa Industries	Industry
32.	Prosun Energy Pvt Ltd	Industry
33.	Suguna Pneumatics	Industry
34.	Tsr Industries	Industry
35.	Mark Preserve Products	Industry
36.	Sevamani Industries	Industry
37.	Metallurgical Engineering Industries	Industry
38.	Best Heat Treatment Services	Industry
39.	Hadheedh Engineering Works	Industry
40.	Narayanan & Co	Industry
41.	Gowdam Deepa Machineries	Industry
42.	Mm Industries	Industry
43.	Gowtham Industries	Industry
44.	Canel Valves Pvt. Ltd.	Industry
45.	Sri Balaji Enterprises	Industry
46.	Fox Designs	Industry
47.	Tekmak Industrials	Industry
48.	United Cooling Systems Pvt. Ltd.	Industry
49.	Focuss Digital Press	Industry
50.	Merlin'S Photo Lamination	Industry
51.	Indo Shellcast	Industry
52.	Avock Engineering Pvt Ltd	Industry
53.	Raveendra Pneumatic Equipments	Industry