Skilling for the Future

Skill Gap Assessment & Action Plan for Tamil Nadu

District Skill Development Plan for Kanchipuram

November 2019

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Disclaimer

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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.	CFC	Common facilities centre
5.	DDU-GKY	Deen Dayal Upadhyaya Grameen Kaushalya Yojana
6.	DES	Directorate of Economics and Statistics
7.	DISE	District Information System for Education
8.	GDDP	Gross District Domestic Product
9.	GSVA	Gross State Value Add
10.	DIC	District Industries Centre
11.	GVA	Gross Value Added
12.	ITI	Industrial Training Institute
13.	IT-ITES	Information Technology and Information Technology Enabled Services
14.	LFPR	Labour Force Participation Rate
15.	Manuf.	Manufacturing
16.	MSME	Micro, Small and Medium Enterprises
17.	NCVT	National Council for Vocational Training
18.	NEET	Not in Education, Employment, or Training
19.	NIC	National Industrial Classification (2008)
20.	NSDC	National Skill Development Corporation
21.	NSQF	National Skills Qualification Framework
22.	NULM	National Urban Livelihood Mission
23.	PMKVY	Pradhan Mantri Kaushal Vikas Yojana
24.	PSU	Public Sector Undertaking
25.	Pub. Admin.	Public Administration
26.	QP-NOS	Qualification Pack – National Occupational Standards
27.	SIDCO	Tamil Nadu Small Industries Development Corporation Limited
28.	SIPCOT	State Industries Promotion Corporation of Tamil Nadu
29.	SSC	Sector Skill Council
30.	TANSIDCO	Tamil Nadu Small Industries Development Corporation Limited
31.	TIDCO	Tamil Nadu Industrial Development Corporation
32.	TN-GIM	Tamil Nadu Global Investors Meet
33.	TNSDC	Tamil Nadu Skill Development Corporation
34.	TNSRLM	Tamil Nadu State Rural Livelihood Mission
35.	Tr. & Tou.	Trade and Tourism Sectors
36.	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[1].

Tamil Nadu currently has the highest Gross Enrolment Ratio in Higher Education (48.6)[2], 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 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 more 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" and establish "District level Skill Development Action Plans for Tamil Nadu". This is the first time such a comprehensive State-wide skill gap study taking into consideration block-level information from each district has been conducted 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 labour supply and estimating the existing and emerging skill gaps.

The Skill Gap 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 was 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:

- Youth aspiration survey: a quantitative survey covering 360 youth 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 covered: Thiruvattur, Thovalai, Agastiswaram, Rajakkamangalam, Melpuram, Munchiram.

[1] Tamil Nadu Skill Development Corporation [https://www.tnskill.tn.gov.in/index.php/link/abouttnsdc]
[2] All India Survey on Higher Education 2017-18

- Quantitative employer survey: covering 31 employers with adequate representation from Large, Medium, Small and Micro Industries across the key sectors defining the district economy.
- 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.

Estimation of labour demand and supply were undertaken based on the analysis of data sourced from the Census of India, the Department of Economics and Statistics of Government of Tamil Nadu, the Reserve Bank of India, the National Sample Survey Organisation and the Bureau of Labour and Employment under the Ministry of Labour and Employment, Government of India. Estimates were further refined based on the data pertaining to the proposed investments (pragmatically rationalised and considered), and the anticipated developments within key sectors; in addition, due consideration is given to the 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, and validated through quantitative survey findings and qualitative consultations. Budgetary requirements for the training projects have been estimated based on the cost categories as defined within the recent Common Cost Norms published by the Ministry of Skill Development and Entrepreneurship, Government of India.

Key Findings:

Key findings of the study are presented hereunder:

Demographic Analysis	• Kanchipuram contributes to 5.5% of the total population of Tamil Nadu. • Kanchipuram district is ranked fifth in terms of the highest population in the state. • Kanchipuram showed the highest urban population growth rate at 65.3% between 2001 to 2011 • 65.4% of its population falls is in the working age group (15-59 years). 43.2% of its population resides in urban area, which is lower than the state average (48.4%). With 8.1% households industry worker, the district ranked third in the state in terms of share of household industry workers. • The district has Sex Ratio of 986 females per 1000 males , as against the State level measure of 995. • It is the 5th most urbanized district in the state • 37.5% of the overall population in the district are in the age group of 15-34 years. • The median age is set to increase from 28 years in 2011 to 32 years in 2026 indicating an ageing population. Thus, the state needs to invest in skill development immediately to reap benefits of the demographic dividend.
Economic Analysis	• Kanchipuram over the last decade has fast moved from an agriculture-based economy to an industrial and service sector economy. The various blocks of the Kancheepuram district like, Sriperumbudur and Kattankolathur got rapidly urbanized and have witnessed huge construction and industrial activity. • The Economy of the District is dominated by the service sector, accounting for about 49.5% of the district output in 2016-2017. Kanchipuram is one of the prosperous districts with the Per Capita GDDP higher than the State Average • One of the largest industrial areas of Tamil Nadu, Kanchipuram is home to many international industrial groups, which are fuelling the growth of the district. This has been possible due to its proximity to the Chennai urban area, proximity to the international airport and two sea-ports at Chennai and Ennore and excellent connectivity through the world class East Coast Road and upcoming upgraded NH4 & NH45. • The economy of Kanchipuram grew at a CAGR of 11% between 2011-12 and 2017-18. • It ranks 5h in terms of GDDP per Capita • Manufacturing sectors account for 82% of the industrial sector output. • The service sector experienced fluctuations in output and grew at a CAGR of 6% during 2011-2012 to 2016-2017. • Real Estate and Trade, Tourism contribute to more than half of the total service sector in the district.
Labour Market Analysis	• The overall labour force participation and worker population ratio are lower at the district level compared to the state level. • More workers in the district are in wage-employment (43.2%) compared to self-employment (31.2%) as per MoLE estimates.

Education & Skill Development	• The District has seven deemed Universities, 51 engineering colleges, 14 Arts and Science colleges, four Medical College, and six nursing colleges, four pharmacy, one Ayurveda and one physiotherapy college in the district. • Training on traditional skills required to be imparted to youth.
Findings from Primary Survey	
Youth Profile and Aspirations	• 54% of the total respondents are currently engaged in economic activities. • 94% of the female neither in education or employment or training (NEET) respondents and 92% of the male NEET respondents wish to work in the future. • The main factors determining the job aspirations of the youth are salary (wages) / income (87%), job Security (55%), closeness to residence (28%) and safety / security (13%). • Lack of guidance / information on appropriate job available for skill levels (84%) and lack of work experience (8%) were the major challenges faced by youth in pursuing their career aspirations. • The key factors determining employability of the respondents included level of educational attainment (39%), years of experience (24%) and certifications in technical skills (21%). • Clear Communication Skills (67%), analytical thinking (32%) and team work (20%) were identified as key skills specific to their aspired jobs • Manufacturing, Textile and apparel, Retail and Electronics and IT hardware were the most preferred sectors among the female respondents, while the male respondents preferred sectors like Auto and auto components, Manufacturing, Food Processing and retail. The youth have high salary expectation, with the median expected salary of ₹ 15,000 per month for entry-level jobs. • 8% of the total respondents had awareness of Govt. run vocational programs but none of them had undergone any vocational training previously. • 16% of the total respondents were interested in undertaking vocational training.
Employer & Other Key Stake holder Perspective	**Quantitative Survey** • 93% of the employers recruit through references. • The most common challenge faced by employers include the candidate disinterest and attitude (76%), followed by high local wages (66%) and lack of prior experience (10%). • Domain skills and communication skills are the two major requirements for workers. • Responses indicate that there is medium to high-level demand for skilled labour perceived in the next five years. However, challenges faced in recruitment in general and from institutions need attention in order to improve the quality of the work force. • Only 3% of the respondents were considering adoption of high levels of technology. The industries see a greater role for upskilled / re-skilled labour who can adopt to newer and efficient techniques. **Qualitative Inputs** • After apprenticeship training, there is no mechanism to track students. • Key challenges in recruiting from vocational programs was the skills mismatch of the youth and their lack of experience in working environment through internships or apprenticeships. • English Communication was a major challenge for workers in the services sector. Soft Skills, Interpersonal Skills, and attitude were also highlighted as major challenges across all sectors. • TSPs, District officials, and Industries highlighted unavailability of good quality trainers for both soft skills and job-specific technical skills. The centralised model of sector skill councils in training & certifying trainers and assessors made it hard for the stakeholders to access good quality trainers and assessors. • Electric cars can bring about new change in skill training requirements in the district. • Retail is an upcoming sector in the district due to emergence of shopping marts and malls. Youth are employed in Food marts, Garments shops, Jewellery shops etc. Food and transportation is provided to the youth to attract them for these roles. • IT/ITeS, Automobile, auto components, textile and engineering the major employers in the district.
Incremental Demand	• As per the skill gap estimation, the overall demand for skilled and semi-skilled workforce over the next six years is around 3 Lakh • Key sub-sectors driving the demand are manufacturing, construction, trade and repair services, education; transportation and storage, telecommunication, real estate, human health and social work activities, and repair of computers and personal and household goods

Recommendations: Based on qualitative, quantitative and secondary information findings and inferences, the following recommendations have been identified for consideration:

- **Focus training in Food processing sector:** The fruit-based nutritious beverages are gaining popularity and are in good demand in urban areas. There is good scope for the units like mango pickles, soft drinks, chocolates, masalas, bakery items and chutneys. Youth, especially women can be provided training to undertake end-end work including procurement of raw materials, processing, packaging, marketing and logistics. Food processing sector can be further revamped by strengthening the logistics and supply chain- This can be done by establishing Integrated Storage and Warehouses, Development of Cold Storage Infrastructure, Packaging & Barcoding. Skill training can be provided to youth in these sub-sectors.
- **Introduction of agri-marketing courses**: TNSDC can tie up with Tamil Nadu Agricultural Marketing & Agri Business to introduce courses on agri-marketing in the district.
- **Soft skill trainings-** The block of Sriperumbudur has transitioned from an agriculture into heavily industrialized block. Its proximity to the fast growing city of Chennai, numerous industrial estates and small industrial units located within the block have increased the overall economy of the district. However, the study revealed that there is a mismatch between the qualification and the skill sets of the youth and the requirements of the employers. Now-a-days, besides strong technical expertise, the employers also require the candidates to have good soft skills. Further, the industries also look forward to hire candidates based on soft skills. Thus, spoken English trainings and life skills should be imparted to the youth in the district.
- **Increase woman participation:** The upcoming investment proposed in Kanchipuram district is driven by the healthcare and tourism sectors where woman workforce are generally recruited. The nature of job requires is an enabling factor for the employers to recruit women in these industries. In order to increase the further growth of the sectors, women participation in technical job roles needs to be increased. Employers need to introduce incentives to create the appropriate working environment for better participation of woman like transport facilities, medical leave, creche system for women workers of all levels, and appropriate benefits and pay to retain workers. Introducing incentives and providing these facilities will not only increase productivity but also will also increase the retention and efficiency of the workforce.
  The healthcare and tourism sector is also expanding in Kanchipuram. 31,323 workforces is estimated to be in demand in the next six years for these three sectors (healthcare, tourism including restaurants and hotels). Such incentives will attract younger generations, especially woman to join the sectors besides motivating the currently working workforce to continue working.
- **Creation of high-skilled job roles for manufacturing healthcare devices:** The Healthcare sector has completely moved into using high-end technological medical equipment and methods for treating patients. A new Medipark is proposed to be setup in the district to manufacture medical devices and equipment. The Medipark will be a dedicated manufacturing cluster for medical devices and equipment in India with state-of-art infrastructure and facilities to meet the regulatory standards and compliances in the sector. The project is envisaged as a “one-stop facility” for manufacturing units through the creation of an integrated ecosystem to facilitate business, approvals, stimulate innovation and R&D, develop new technologies, prototyping and commercialization activities and become a hub for the sector in the country. Jobs in medical devices often appear to be quite like those in the pharmaceutical and biotechnology sector, but there are some distinct differences depending on the type of medical device being developed. There is a need for providing high-end skills to youth to be engaged in this niche sector. Training courses, which focus on imparting such skills, will ensure that local youth find relevant jobs, which can involve higher pay than semi-skilled job roles. Training courses can also aim for gender inclusivity, and thereby increase opportunities for women.
- **A unified job portal for job postings at all levels of skill across sectors:** Qualitative consultations with industry representatives revealed that there is a mismatch between placement practices in vocational training institutions and recruitment practices among employers. A portal for jobs/ apprenticeships open to both employers and jobseekers would enable both sides to minimize time and effort in finding suitable vacancies and profiles. Youth aspiration findings also indicate that youth prefer placement services/ guidance with respect to applying for suitable jobs. It would act as a platform to enable active connect between the employers and prospective employees, as well as prospective apprentices or internees. A common portal would fulfil this need as well.
- **Promotion of service sector opportunities among youth:** Private activity in the hospitality, tourism and retail sectors can be fostered to provide local employment to youth. Hospitality, retail and domestic appliance repair and service can absorb local youth in significant numbers, and provide jobs suited to the needs of young women. Qualitative consultations and secondary data analysis reveal that service sectors have great demand for both skilled and semi-skilled labour in the district. Hospitality in particular can absorb workers from different education levels – college graduates can work in administration, school graduates and dropouts can work in catering, security, housekeeping and transportation.

1. District Profile

1.1. Demographic Profile

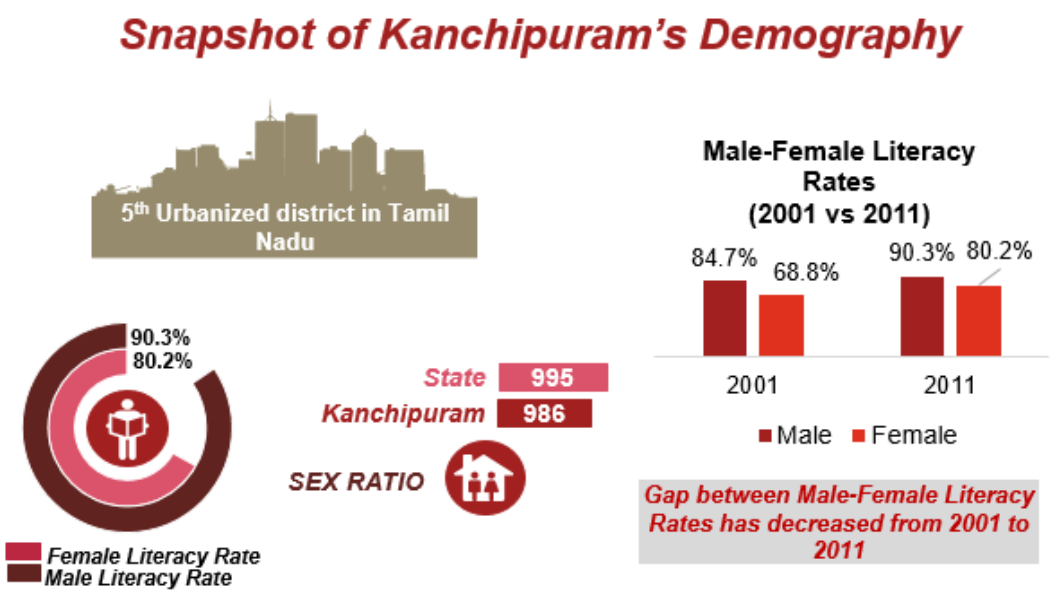
Kanchipuram district has rapidly industrialized over the last decade. With the international industrial groups setting up their manufacturing base in the district, the industrial clusters have increased the economy of the district besides attracting workforce from all over the country. Kanchipuram city is known as the 'city of a thousand temples'. The 192 ft. high temple tower of *Ekamabaranadhar* temple and the 100-pillar building in *Varadaraja Perumal* temple in this town are famous and considered marvels of the architectural beauty of the Vijayanagara dynasty. Kanchipuram is also famous for its silk saris and is often known as the 'silk city' of Tamil Nadu.

Kanchipuram district is ranked fifth in terms of the highest population in the state.

Kanchipuram contributes to 5.5% of the total population of Tamil Nadu. 65.4% of its population falls is in the working age group (15-59 years). 43.2% of its population resides in urban area, which is lower than the state average (48.4%). With 8.1% households industry worker, the district ranked third in the state in terms of share of household industry workers.

Table 1: Key Demographic Indicators– Kanchipuram vs Tamil Nadu[3]

SN	Indicator	Kanchipuram	Tamil Nadu
1	Total population	3,998,252	7,21,47,030
2	Female population	1,985,294	36,009,055
3	Population Density per sq.km (2011)	892	555
4	Urban Population	63.5%	48.4%
5	SC population (as % of total population)	4.0%	20.0%
6	ST population (as % of total population)	0.4%	1.1%
7	Differently abled population (as % of total population)	1.9%	1.6%
8	Population in age group 15-34 years (as % of total population)	37.5%	34.8%
9	SC population aged 15-34 years (as % of SC population)	34.4%	36.6%
10	ST population aged 15-34 years (as % of ST population)	36.5%	35.0%
11	Literacy rate	85.3%	80.3%



[3] Census 2011 & 2011

Key Highlights from the analysis of Census Data:

- **Population Growth and Urbanization:** The Decadal growth rate **of the population in the district** was **39%** between 2001 & 2011, compared to **15.6%** at the state level. This is the highest compared to all other districts in the state. **Kanchipuram showed the highest urban population growth rate at 65.3% between 2001 and 2011.**
- **Literacy:** The district had a female literacy rate of 80.2% while the male literacy rate of 90.3%. These are higher than the corresponding literacy rates at the state level. The literacy rates among males increased by 6% while among females it increased by 16.5%, reducing the gap between them from 23% in 2001 to 12% in 2011. The reducing gap between the male and female literacy rates indicates increasing of education attainment among females in the district.
- **Youth Demography:** 37.5% of the population was between 15-34 years in 2011. The median age during this period was 28

1.2.1. Sector Analysis[7]

Figure 3 Sectoral Snapshot of GVA 2016-2017

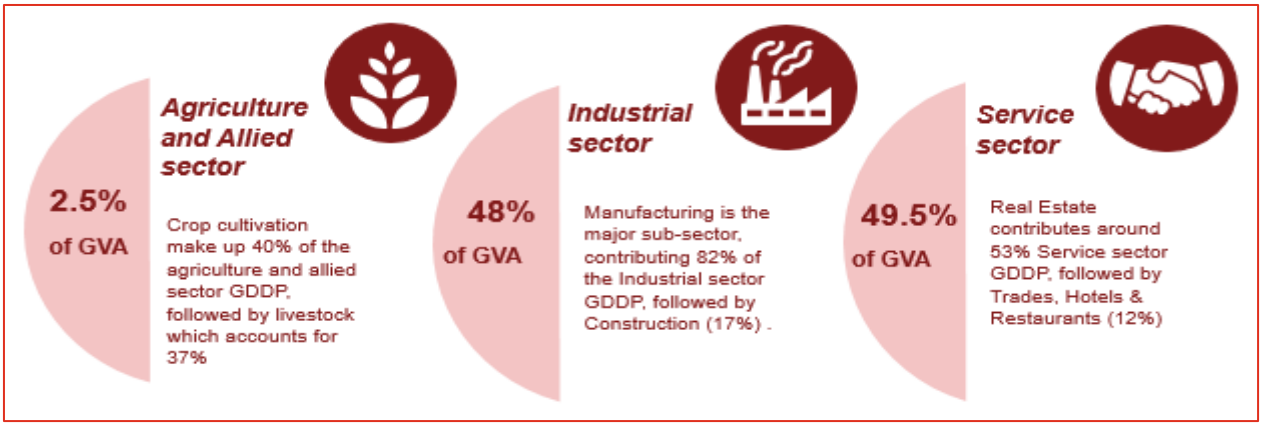
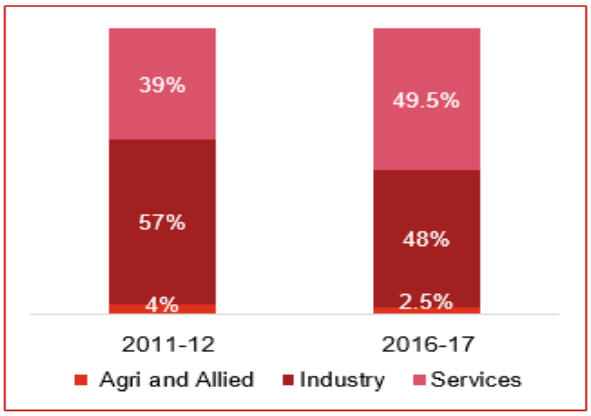


Figure 4 Sectoral Share of GVA (2011-12 & 2016-17)



Kanchipuram over the last decade has fast moved from an agriculture-based economy to an industrial and service sector economy. The various blocks of the Kancheepuram district like, Sriperumbudur and Kattankolathur got rapidly urbanized and have witnessed huge construction and industrial activities. The economy of the District is dominated by the service sector, accounting for about 49.5% of the district output in 2016-2017. Kanchipuram is one of the prosperous districts with the Per Capita GDDP higher than the State Average. The Services sector has witnessed an increase in contribution to GDDP from 48% in 2011-12 to 49% in 2016-2017. The share of industry's contribution to economy has gone up by two percentage points between 2011-2012 and 2016-2017.

Table 2: Sector wise- Annual Growth Rate in Kanchipuram (Directorate of Economics and Statistics, TN)

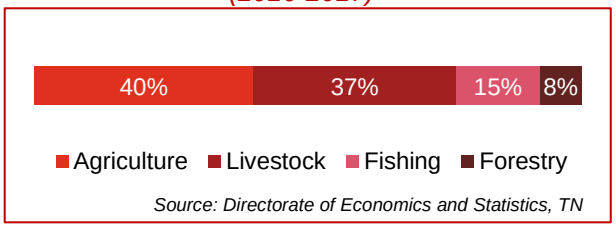
Sector	2012-13	2013-14	2014-15	2015-16	2016-17	CAGR (2011-12 and 2016-17)
Agri & Allied	19%	-11%	-17%	9%	-2%	-1%
Industry	-3%	0%	-6%	13%	9%	2%
Services	10%	12%	16%	10%	8%	11%

Figure 5 Share of GVA by Industry of Origin (2016-17)

[7] *Directorate of Economics and Statistics, Tamil Nadu*

Agriculture and Allied Sector

Figure 6 GVA of Agriculture and Allied Sectors (2016-2017)



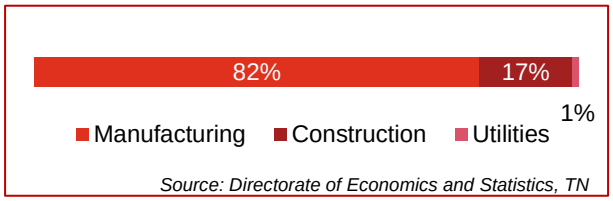
Agriculture and allied sector contributed to 40% of the district output in 2016-2017. Paddy is the major crop cultivated in this district. Groundnuts, Sugarcane, Cereals and Millets and Pulses are the other major crops.

Major horticulture crops cultivated in this district include fruits crops like mango, banana, sapota and guava, vegetables like brinjal, bhendi, gourds, greens and watermelon, spices like chillies and curry leaves and flower crops like jasmine, tuberose and chrysanthemum.[8] There are five State Horticulture Farms in the District, at Athur, VIchanthangal, Melottivakkam, Melkadirpur and Pitchivakkam. Livestock and dairy can be further strengthened as allied agricultural activities. Currently, private dairy processing units like Seva Dairy in Acharapakkam, Hatsun Heritage and Ananya Dairy in Kancheepuram function successfully in the district. These efforts could be further strengthened.

The Kanchipuram District is rich in fish resources with the coastal line of 87 km. Fish production in coastal region is higher than the inland fish production. The fish production from both inland and marine sources has increased in both quantity and value.[9] The long coastal line has high potential for shrimp and prawn culture in Thiruporur, Chithamour and Lathur blocks.

Industrial Sector

Figure 7 Industrial Sector GVA (2016-2017)



Manufacturing sub-sector accounts for 82% of the sector output. The sector experienced fluctuations in output and has grown at low CAGR of 2% between 2011-2012 and 2016-17. The key manufacturing sectors by output include Motor vehicles, Parts and accessories for motor vehicles and general machineries. Motor vehicles, parts and accessories for motor vehicles, general-purpose machinery, pharmaceuticals, and medicinal chemical and botanical products are other sectors that employ a significant share of the Industrial workers.

One of the largest industrial areas of Tamil Nadu, Kanchipuram is home to many international industrial groups, which are fuelling the growth of the district. This has been possible due to its proximity to the Chennai urban area, proximity to the international airport and two sea-ports at Chennai and Ennore and excellent connectivity through the world class East Coast Road and upcoming upgraded NH4 & NH45. The range of activities promoted by the Industrial Estates are vast - while Dr. Vikram Sarabai Estate at Thiruvanmiyur houses electronic industries, the Alathur Industrial Estate houses pharmaceutical industries and the Thirumidivakkam industrial estate houses leather products and finished leather. The major industries in the district include Hyundai Motors India Ltd., Ford India Ltd, Saint Gobain Glass, Pepsi India Ltd., Celebrating Fashions, Orchid Chemicals, Hindustan Lever Ltd, Busboke Allen Ltd, Saint Gobain. Bhabha Atomic Research Centre (BARC) has developed comprehensive technology for industrial operations in fuel reprocessing and waste management. The youth are mostly employed in the industrial belt of the district, which houses major automobile, engineering, and IT firms. Around 20,000 girls are employed in Lotus shoe making factory in the district.[10]

INDUSTRIAL ESTATES	TYPE OF INDUSTRIES
• SIDCO Industrial Estate, Orikkai, Kancheepuram	Zari, Engineering Auto components
• SIDCO Industrial estate M.M.Nagar	Auto Components engines, Motors
• SIDCO Industrial Estate Alathur Pharmaceutical complex	Pharmaceuticals
• CMDA Industrial Estate Dev Plots, M.M..Nagar	Engines, Motors
• Developed Plot Estate For Electrical & Electronic industries, Perungudi	Electronics, Software

[8] http://tnhorticulture.tn.gov.in
[9] http://www.tnenvis.nic.in
[10] Primary stakeholder consultation

• Dr.Vikram sarabai industrial estate.Tiruvanmiyur	Electronics, Software
• SIPCOT, Irungatukotai	Automobile Engineering
• SIPCOT, Sriperumbudur	Glass and other products
• The Chennai Export Processing Zone(CEPZ)	100% export units-Electronics, Rubber products & Garments
• SIPCOT IT complex Siruseri	IT industries
• SIPCOT , Oragadam	Engineering Industries Biotech, Electronics
• Mahindra Industrial Park(SEZ)	Computer software
• SIDCO Estate, Thirumudivakkam.	Engineering components
• Hardware Hi-Tech SEZ (486 acre) in Sriperumbudur • Hi-Tech SEZ (348 acre) in Oragadam	Electronic/Telecommunication Hardware

An analysis of data from Annual Survey of Industries (2014-15)[11] shows that seventeen sub-sectors contribute to 77% of the Gross Value Addition (GVA) in the industrial activity of the district. The details appear in the table below:

Table 3 Profile of Manufacturing Sector from ASI 2014-15

Industry	No. of Units	No. of Employee	Gross Value Added (share in total GVA)	Share of Employment	Average workers per unit
Motor vehicles	12	42,634	19%	19%	3,553
Parts and accessories for motor vehicles	417	75,379	16%	33%	181
Computers and peripheral equipment	6	1,663	10%	1%	277
General purpose machinery	129	18,776	7%	8%	146
Pharmaceuticals, medicinal chemical and botanical products	88	14,820	3%	6%	168
Rubber products	50	4,141	3%	2%	83
Tanning and dressing of leather; manufacture of luggage, handbags, saddlery and harness; dressing and dyeing of fur	168	8,192	2%	4%	49
Beverages	53	6,310	2%	3%	119
Communication equipment	10	1,346	2%	1%	135
Wearing apparel, except fur apparel	157	17,330	2%	8%	110
Manufacture of other fabricated metal products; metalworking service activities	254	10,896	2%	5%	43
Manufacture of special-purpose machinery	51	5,161	2%	2%	101
Manufacture of structural metal products tanks, reservoirs and steam generators	68	3,975	2%	2%	58
Manufacture of electric motors, generators, transformers and electricity distribution and control apparatus	44	3,204	2%	1%	73
Manufacture of other chemical products	94	4,528	1.5%	2%	48
Manufacture of plastics products	121	5,665	1.4%	2%	47
Manufacture of electronic components	52	5,396	1.2%	2%	104
TOTAL	**1,774**	**229,416**	**77%**	**100%**	**311**

Source: Annual Survey of Industries 2014-15

[11] Government of TN

According to the ASI 2014-15, 1,774 Industrial units were present in the district, directly employing 229,416 workers (top seventeen sectors). The top-ranking sub-sector with respect to GVA is “Manufacture of Motor vehicles”, and the top three sub-sectors include manufacture of parts and accessories for motor vehicles, manufacture of computers and peripheral equipment and manufacture of general-purpose machinery. Average workers per unit is maximum in motor vehicles manufacturing, Computers and peripheral equipment, parts and accessories for motor vehicles, pharmaceuticals, medicinal chemical and botanical products. These sectors have the maximum scope of providing employment. 33% of the employees are out of these seventeen sectors are working in manufacturing of parts and accessories for motor vehicles.

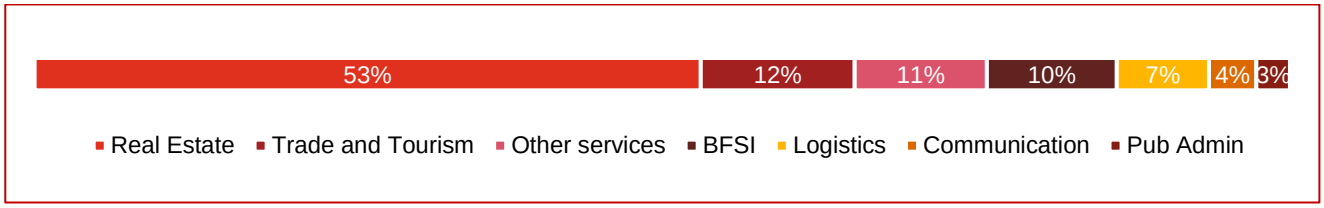
Services Sector

Real estate contributes to more than half of the total service sector in the district. The sector experienced fluctuations in output and has grown at a moderate CAGR of 11% during the period of 2011-2012 to 2016-2017.

Retail is an upcoming sector in the district. Youth are employed in Food marts, Garments shops, Jewellery shops. Tourism is the other prominent sector. The district houses many temples and tourist places. The shore temple and the monolithic chariots, known as the “Five Rathas”, Arjuna’s peanace, the Krishna Mandapam, Mahishasura Mandapam, the elephant etc., are all magnificent pieces of sculpture which attract hundreds of tourists throughout the year. The place is also known as the Seven Pagodas and along with the sea-shore. Vedanthangal bird sanctuary, Muttukadu, Mamallapuram, Covelong Beach, Dakshinachitra, the Crocodile Park and Anna memorial which are situated in Kancheepuram are renowned tourist attractions.

Kanchipuram city has been chosen as one of the heritage cities for HRIDAY - Heritage City Development and Augmentation Yojana scheme of Government of India. The healthcare sector has also grown over the last decade.

Figure 8 GVA of Services Sector (2016-2017)



Source: Directorate of Economics and Statistics, TN

Traditional Industries

Kancheepuram has always been known for its handloom and textile industry. Handloom, mat weaving, stone carving, basket making, bleaching and dyeing, toy making and embroidery are the important cottage industries in the district.

Kanchipuram Silk[12]

Traditional industries like handlooms and silk weaving are concentrated in Kanchipuram block. The District has well developed silk and handloom weaving industries in the co-operative sector.

In 2005, "Kanchipuram Silk Sarees" received the Geographical Indication tag, becoming the first product in India to carry this label. Even though the industry is worth ₹ 50 crores, the weaving community suffers due to lack of proper marketing strategies, power looms and duplicate market players. These sarees are worn as bridal & special occasion sarees by most women in Tamil Nadu, Karnataka & Andhra Pradesh.

The *zari* used for making the sari comes from Gujarat. To weave a Kanchipuram sari three shuttles are used. While the weaver works on the right side, his aide works on the left side shuttle. The border colour and design are usually quite

Figure 9: Weaving sari, Kanchipuram

[12] Primary stakeholder consultation

different from the body. It takes nearly 4 to 5 days to complete one sari. The length of 10 saris warp is loaded into the loom at a time. The weavers need 1 or 2 persons help while working. The silk industry cluster at Kanchipuram block primarily engages both men and women in the age group of 40 years and above. The younger generation is not keen to join the traditional sector.

The major Khadi Industries include Cotton and Polyester Khadi, silk and woolen units are in Kanchipuram District. More than 10,000 weavers (6,000 under co-operative umbrella and rest in private units) are engaged in the silk and cotton industry and their spectacular creations are marketed by 62 registered co-operative societies functioning currently. 10 societies have closed in the last five years. All the cotton units are run by government co-operatives. Out of the 66 societies, 22 silk (6 real *zari* silk producers and 16 artificial silk *zari* producers) and 40 cotton societies are in operation. The number of workers in the handloom sector has declined over the past 10 years from 20,000 to 10,000.

There are two training cetres in the district, one under central government and other under state government. Weaver's service centre, a central govt. undertaking provides training to weavers in the region besides providing them with upgraded looms at 90% subsidy. 1946 people have been trained till date.[13]

Figure 10: Silk sari weaving, Kanchipuram

Mamallapuram- Sculpting [14]

Figure 11: Stone carving unit, Mamallapuram

Mamallapuram besides being a famous tourist destination is also well-known for its sculptures from the time of the Pallavas. The architectural structures carved out of rocks several centuries ago attract a large number of foreign tourists to this place. The town is one of the main hubs for sculptors. The products are the replicas of Hindu mythological epics. Modern art has found its way and many artisans have started sculpting them, especially based on customized orders. Now-a-days, the sculptures also find its places in temples, public gardens, hotels and for home decor.

The products are the replicas of Hindu mythological epics. The rules of Shilpa Shastra are followed to carve granite stones. There are over 100 craftsmen involved in the carving. Now-a-days artisans have started making

[13] Primary stakeholder consultation
[14] Primary stakeholder consultation

sculptures made of durki stone and marble also. It is a challenge to source in the raw materials as the quarries near Kanchipuram are all shutting down. Global Stone Workshop and creative sculptors are few renowned workshops in the town providing employment to 100+ sculptors. Navajeevan Metal Sculptors are a front-line art foundry specialized in large and complex works as well as in miniature castings. The workshop has two facilities in Mamallapuram, a studio for models, tribal casting, vacuum casting and ceramic shield and a foundry for major castings. These enterprises have started a new project called "Make Art in India" with the goal of collaborating with artists abroad to produce large artworks in stone, bronze and wood.

Recommendations: TNSDC can tie up with Government college of architecture and sculpture to deliver training courses to youth.

1.2.2. Investments and key economic drivers

The district of Kanchipuram is one of the large industrial and educational hub in Tamil Nadu and competes among the best investment destinations of Asia. The district has a mix of different types of industry from automobiles, auto components, engineering, electrical and electronics. Construction is a major economic activity – both industrial and residential development coming in a big way across the district. A number of investments are planned in the district in the upcoming years.

Table 4 Sector-specific growth of Credit off Take[15] (2013-14 to 2016-17) - RBI

Industry category as per RBI	Amount in INR Crore				Growth 2013-14 to 2016-17
	2013-14	2014-15	2015-16	2016-17	
IT & ITeS	5	4	16	17	50%
Beverage & Tobacco	4	4	7	9	37%
Leather & leather goods	36	52	67	86	33%
Cement & cement products	9	8	16	20	33%
Textile	84	136	138	164	25%
Food manufacturing	122	161	161	224	22%
Transport operators	208	158	290	358	20%
Rubber & plastic products	59	92	77	94	17%
Chemicals & Chemicals Products	50	66	82	78	16%
Electricity, Gas & water	37	55	75	47	9%
Basic Metals	230	140	289	264	5%
Vehicle, vehicle parts and equipment	967	850	1248	1096	4%
Engineering	838	928	1281	922	3%
Construction	651	687	621	696	2%

According to the RBI data, the district has seen highest recent growth in credit across IT/ITeS, Beverage and Tobacco, Leather & leather goods, cement and cement products and textile sectors.

Some of the investments planned in the district re as follows:

- Aerospace Park in Sriperumbudur (Vallam-Vadagal) with an Advanced Computing and Design Engineering Centre (ACDEC) is being set up to form a strong base for supporting large OEMs.[16]
- Healthcare sector**:** A Medipark project is being established by HLL Lifecare Ltd., a Government of India Enterprise and TIDCO, at Chengalpattu in the district in an area of 330 acres. This will be an exclusive industrial park for the manufacture of medical devices and equipment. The Medipark will be a dedicated manufacturing cluster for medical devices and equipment in India with state-of-art infrastructure and facilities to meet the regulatory standards and compliances in the sector. The project is envisaged as a "one-stop

[15] Credit offtake is defined as an increase in credit growth, which happens when lenders mobilize funds to commercial sector in order to earn better returns compared to government bonds and securities.

[16] GIM 2019 data

facility" for manufacturing units through the creation of an integrated ecosystem to facilitate business, approvals, stimulate innovation and R&D, develop new technologies, prototyping and commercialization activities and become a hub for the sector in the country. The project aims to create a strong base for the growth of indigenous and domestic industry by providing access to state of art infrastructure and technology. Under guidance of Ministry of Health & Family Welfare, Govt. of India, TIDCO is planning to develop and implement Medipark Project.

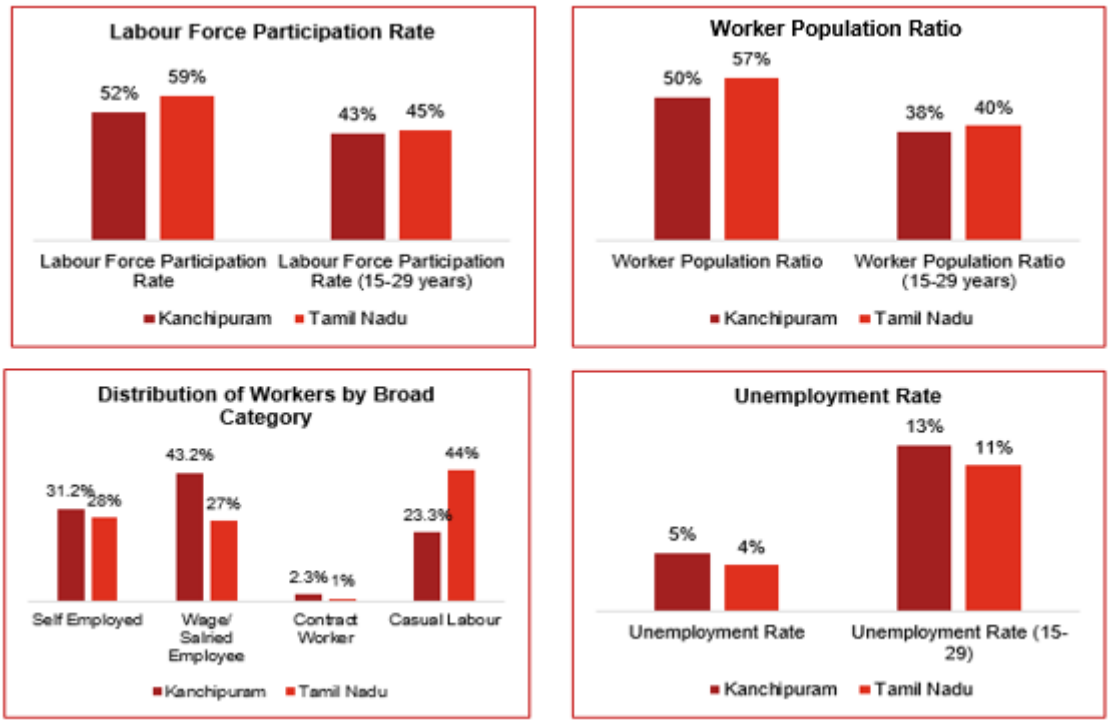
- DLF Info Park Developers Ltd. have proposed Kottivakkam (Kanchipuram) DLF IT Park Project at an estimated cost of ₹24,700 crores
- Kancheepuram Industrial Park (Phase-2) Project proposed at ₹840 crores
- Sriperumbudur Auto Plants Capacity Expansion Project proposed by Hyundai at an estimated cost of 70,000 crores
- Real estate is a booming sector in the district. Casa Grande Homes Pvt. Ltd. have proposed Kanchipuram Multi storied Group Development Project at an estimated cost of ₹1,394 crores. Lancor Holdings Ltd. also announced Kancheepuram Lumina (Phase 2) Residential Project.

IT/ITeS, Healthcare, Real estate, Tourism and general engineering are sectors with high growth potential.

1.3. Labour Market Profile[17]

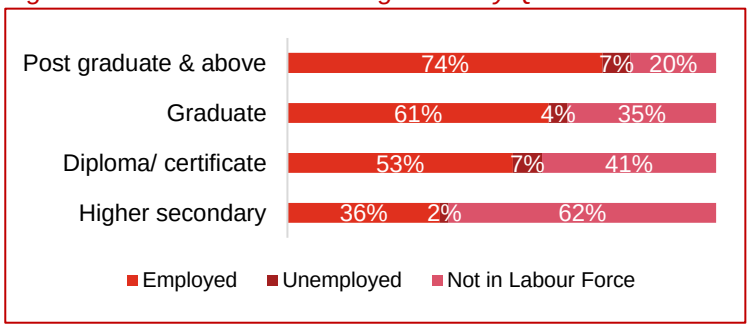
The overall labour force participation and worker population ratio are lower at the district level than at the state, however both LFPR and WPR for age group 15-29 years is marginally lower than the state figures. More workers in the district are in wage-employment (43.2%) compared to self-employment (31.2%) as per MoLE estimates. Youth Unemployment Rate (15-29 years) is higher (13%) at the district level than at the state level (11%).

Figure 12 Key Labour Market Indicators[18]



[17] Analysis in this section are based on the District Level Estimates, EUS, 2013-14, Labour Bureau
[18] District Level Estimates, EUS, 2013-14, Labour Bureau

Figure 13 Distribution of Working status by Qualification: District Level Estimates



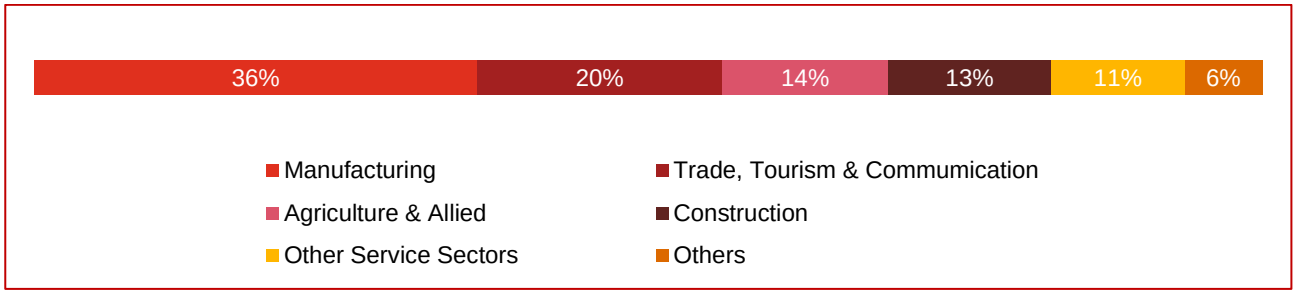
The education-level classification of the district population reveals that 7% post-graduates are unemployed. This is lower compared to the state average (10% post-graduates unemployed).

Table 5: LFPR and Unemployment Rate by gender & Location

	LFPR		Unemployment Rate	
Sex	**Rural**	**Urban**	**Rural**	**Urban**
Male	78.8%	76.4%	2.5%	3.7%
Female	24.9%	27.8%	8.1%	9.5%

Disaggregation by area and sex, it is found that females residing in rural areas have a labour force participation rate lower higher than their urban counterpart where else, LFPR for rural males are higher than urban males. The urban unemployment rate for both males and females are higher than their rural counterpart.

Figure 14 Sector-wise share of Employment



Source: District Level Estimates, EUS, 2013-14, Labour Bureau

More than one third of the workforce in the district are employed in the manufacturing sector. Trade, Tourism and Communication is the second most important sector in terms of employment followed by agri and allied sector.

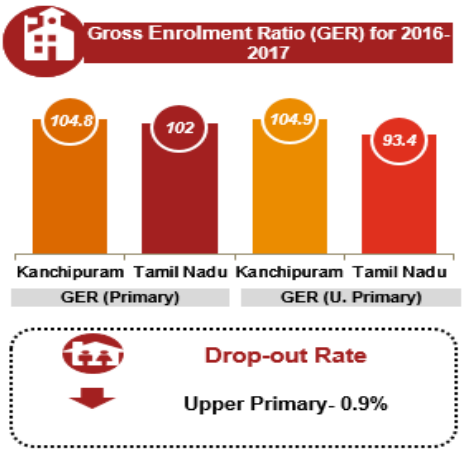
1.4. Education and Skill Development Profile

1.4.1. Education Profile

According to District Statistical Handbook, there were 1,012 primary schools, 362 middle schools, 165 high schools and 172 higher secondary schools in Kanchipuram district.[19]

The GrossEnrolment Ratio[20] at both primary and upper primary levels are higher than the state averages. The dropout rates are high at 0.9% at the upper primary level.[21] The District has seven deemed Universities, 51 engineering colleges, 14 Arts and Science colleges, four Medical College, and six nursing colleges, four pharmacy, one Ayurveda and one physiotherapy college in the district.

Figure 15 GER and Drop-out Rates - DISE



[19] District Statistical Handbook 2016-17

[20] Gross enrolment ratio (GER) is defined as Number of students enrolled in a given level of education, regardless of age, expressed as a percentage of the official school-age population corresponding to the same level of education.

[21] DISE report cards

1.4.2. Vocational Education and Skill Development Profile

The skill training infrastructure of the district include skill training centers implementing schemes like TNSDC, Pradhan Mantri Kaushal Vikas Yojana (PMKVY) and Deen Dayal Upadhyay Grameen Kaushal Yojana (DDU-GKY).

Table 6 Vocational Training under Short Term Skill Development Programs[22]

Scheme	Sector	Job Role	No. of Training Centres	Intake
Deen Dayal Upadhyay Grameen Kaushal Yojana	Apparel	-	12	3,726
	Agriculture			
	Retail			
	Electrical			
	Food processing			
	Automotive			
	Construction			
	Iron & Steel			
	Tourism and Hospitality			
	Healthcare			
	IT/ITeS			
	Electronics			
	Capital Goods			
	Logistics & Supply Change Management			
Pradhan Mantri Kaushal Vikas Yojana	Textiles and Apparel	Hand Embroiderer	3	140
		Self Employed Tailor	2	120
		Sewing Machine Operator	2	90
	Leather	Stitcher (Goods & Garments)	1	30
	Media & Entertainment	Makeup Artist	1	
	Electronics & hardware	Field Technician Computing and Peripherals	1	150
	Retail	Retail Sales Associate	1	120
	Tourism and Hospitality	Front Office Executive	2	180
Tamil Nadu Skill Development Programs	Apparel	Hand Embroiderer	1	60
		Sewing Machine Operator	1	60
	Automotive Repair	Casting Technician Sand Moulding	1	100
		Automotive Service Technician (Two and Three W	2	120
		Welding Assistant	2	120
		LMV Driver Level 3	1	60
		Welding Technician Level 3	2	80
		Lathe operator	1	60
	Banking & Accounting	Accounting	1	60
		Banking Associate	2	860
		Banking Sales Representative		90
	Beauty Culture & Hair Dressing	Beauty Therapy and Hair Styling level One	1	130
		Bridal Make-up Artist	1	60
		Integrated Course in Hair, Skin and Make Up	1	60
		Beauty Advisor	1	60

Scheme	Sector	Job Role	No. of Training Centres	Intake
		Scaffolder	1	90
		Assistant Electrician	2	120
	Electronics	Field Technician Other Home Appliances	3	60
		Field Technician Computing and Peripherals	1	40
		Field Technician AC	1	60
	Fabrication	Arc And Gas Welder	1	210
	Garment Making	Pattern Making With Soft skill		
		Hand Embroider	3	220
		Tailor (Basic Sewing Operator)	2	220
	Electrical	Electrician Domestic	2	130
	Fashion Design	Apparel Ornamentalist Grade I	1	80
		Retail Sales Associates	1	60
	Information And Communication	Accounts Assistant Using Tally	2	80
	IT/ITeS	Master Trainer for Software Developer	1	40
		Associate Customer Care (Non Voice)	1	40
		Junior Software Developer	1	40
		CRM Domestic Voice	1	150
		Domestic IT helpdesk Attendant	1	40
		CRM Domestic Non Voice	1	40
		Domestic Data entry Operator	1	20
		Computer software and Hardware	1	30
		Laptop Servicing	1	30
		Mobile Servicing	1	30
		Advanced IT and ITES Training in IT Infrastructure and Services	1	1000
	Plumbing	Plumber (General)	1	60
	Refrigeration & Air Conditioning	Repair And Maintenance Of Window And Split A.C	1	120
	Paint	Spray Painter	1	90
	Retail	Retail Operations	1	120
	Food Processing	Attendant Ethnic Indian Sweets, Snacks & Food	1	240
	Telecom	Optical Fiber Splicer	1	900
		ICT Engineer	1	2000
		Optical Fiber Technician	1	1200
		Broadband Technician	1	1200
		Tower Technician	1	900
		Telecom Services	1	600
		Infrastructure Engineer	1	1800
		Optical Fiber Splicer	1	900
		Network Management Engineer	1	2000

The long-term skill development programs are predominantly provided through Industrial Training Institutes, which offer one and two year programs in various sectors and trades. In addition, there are **19 ITIs**, with 4,186 seats, occupied by 2,439 trainees indicating only 58% utilization.

The below table presents the courses offered through ITI, and the number of such institutes offering each trade/ training for job role.

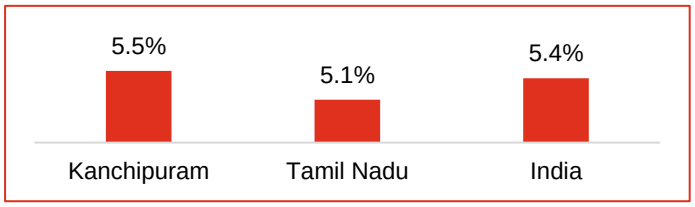
Table 7 Vocational Training under Long Term Skill Development Programs (ITI)

Scheme	Sector	Job Role	No. of Training Centres	Intake
	Automobiles and Auto Components	Driver Cum Mechanic	1	0
		Mechanic (Motor Vehicle)	13	313

Scheme	Sector	Job Role	No. of Training Centres	Intake
Industrial Training Institutes **(Craftsmen Training Scheme)**	Agriculture	Mechanic Agriculture Machinery	1	21
	Capital Goods	Sheet Metal Worker	1	42
		Welder	4	29
		Turner	2	16
		Draughtsman (Civil)	4	18
		Draughtsman (Mechanical)	1	0
	Construction	Electrician	9	197
	Electronics and Hardware	Mechanic (Refrigeration and Air-Conditioning)	2	49
		Mechanic Auto Electrical and Electronics	1	21
		Wireman	3	84
	Infrastructure Equipment	Electronics Mechanic	2	39
		Mechanic Diesel	2	42
	IT/ ITeS	Computer Operator and Programming Assistant	1	0
	Mining	Fitter	12	254
	Leather	Footwear maker	1	0
	Iron and Steel	Machinist	2	42
	Management and Entrepreneurship & Professional	Stenographer & Secretarial Assistant (English)	1	29

Figure 16 Proportion Undergone Vocational training 2015-16, MoLE[23]

Only 5.5% population aged 15 years and above have undergone any vocational training in Kanchipuram. This is higher than the state and the national average.



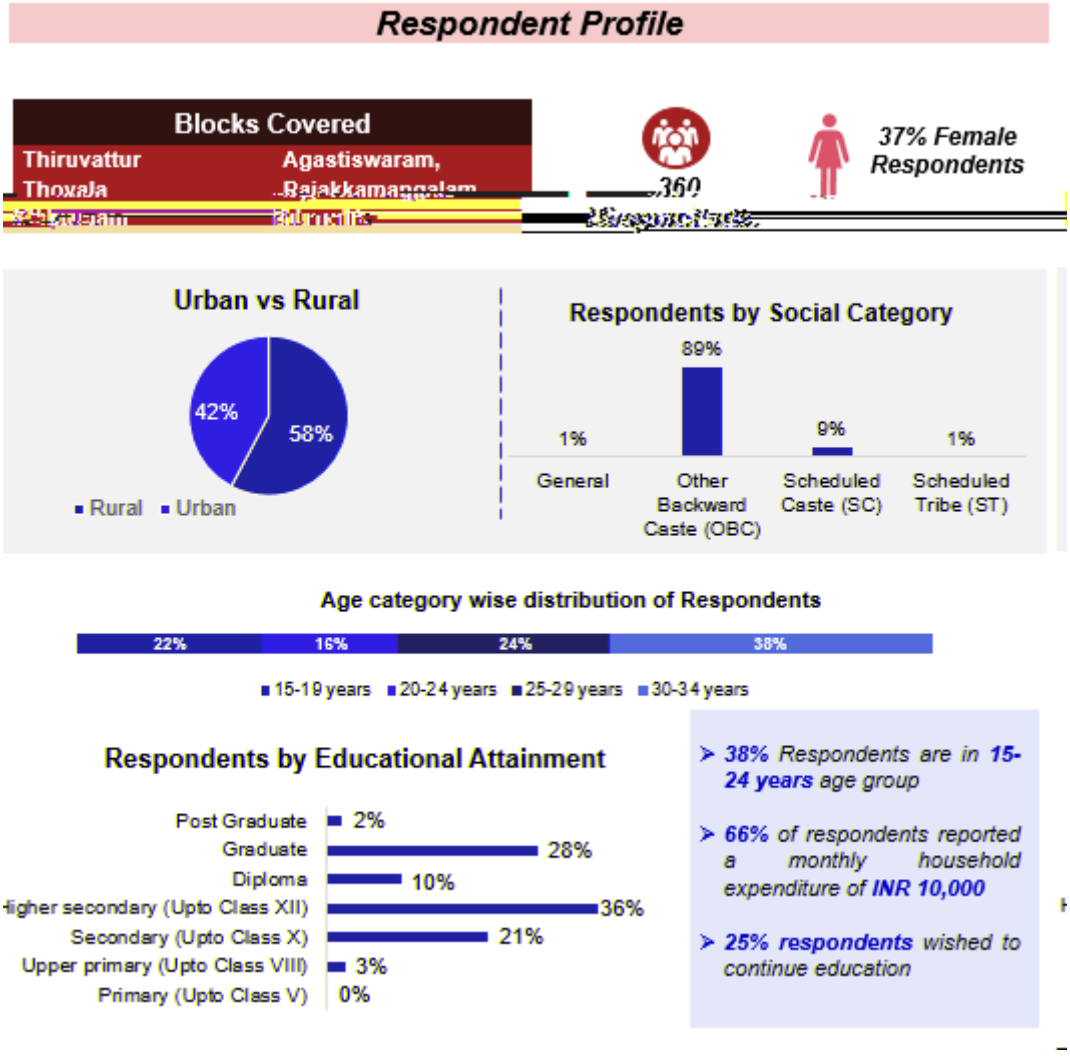
[23] Employment and Unemployment Survey 2015-16, Ministry of Labour and Employment

2. Youth perspective

2.1. Profile of Respondent Youth

The structured household survey tool was administered with 360 youth (young men and women in the age group of 15-34 years) sampled from six blocks **Thiruvattur, Thovala, Agastiswaram, Rajakkamangalam, Melpuram, Munchira**[24]. The detailed block selection methodology is described in Appendix A.1. Of the total respondents, **32%** were **female respondents**; and **almost all the respondents** were from the rural category. The sample has balanced representation of various socioeconomic and demographic characteristics of the population.

Figure 17 Respondent Profile of Youth Aspiration Survey

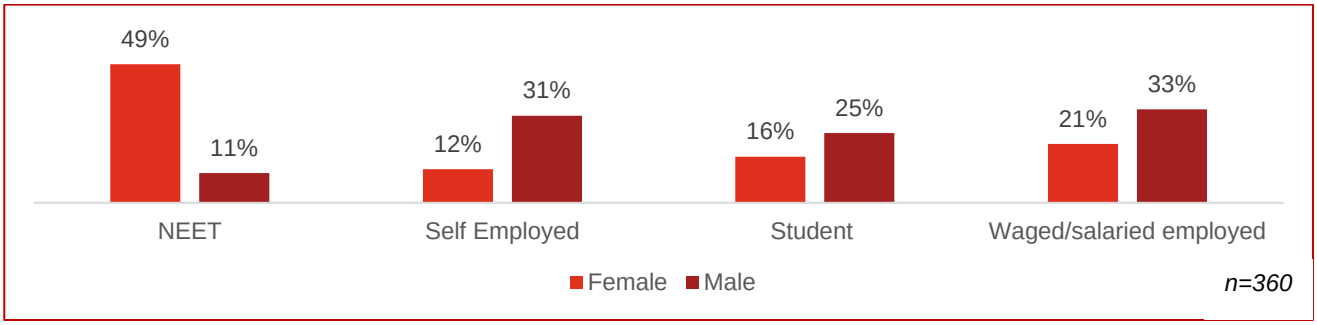


2.2. Youth's Educational and Economic Engagement Status

The figure below illustrates the gender wise classification (current status) of the respondents interviwed during the youth survey. While the female respondents were majorly in the NEET category (49%), the male respondents were largely distributed between Wage / Salaried Employment (33%), and in self-employment (31%).

[24] Detailed methodology of selection of blocks is described in Appendix 1 of the report.

Figure 18 Current Status of Respondent by gender



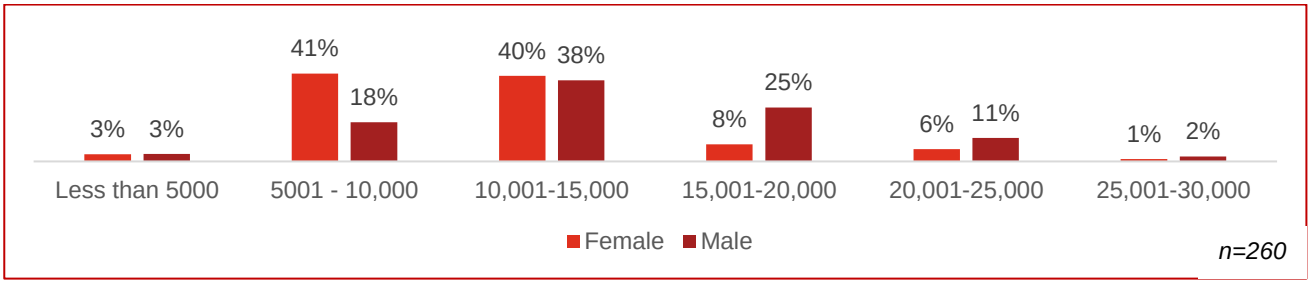
2.3. Economic Engagement of Youth

54% of the total respondents are currently engaged in economic activities.

Out of the respondents who are not presently working, 40% of these respondents have ever been engaged in economic activities. 74% of the respondents (ever engaged in an economic activity and currently working) reported that they were employed in a field related to their education/ training. 33% of these respondents who were currently in employment and ever worked were females.

99% of these respondent's work location was within the district.

Figure 19 Distribution of Respondents (currently working and ever worked) across Monthly Income Category across gender



81% of these female respondents reported that they receive monthly wage in the range of ₹ 5,001- ₹15,000 monthly. One fourth of the male respondents reported that their monthly income was in the range of ₹ 15,001-₹20,000. Around 48% of the respondents were satisfied with their jobs.

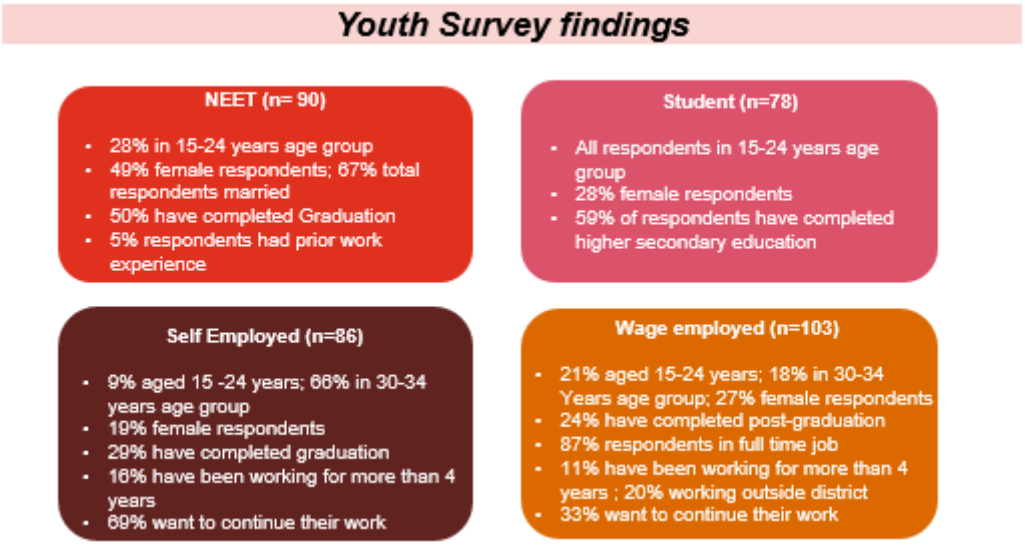
Among those with education of higher secondary and below, skilled work like tailor, mason were the most common form of economic activity.

Table 8 Education Qualification of Respondents and Employment Type

n=260

	Upper Primary and Below	Secondary	Higher secondary	Diploma	Graduate and above
Farm Activities	10%	2%	2%	0%	1%
Unskilled worker (construction, MNREGA)	30%	13%	18%	3%	2%
Salaried Employment (teacher, government official, etc.)	0%	15%	18%	50%	55%
Skilled worker (tailor, mason)	30%	11%	20%	6%	7%
Petty Business/Trade	30%	59%	39%	38%	31%
Major Business/Trade/ Manufacturing	0%	2%	4%	9%	4%
Number of respondents	**10**	**46**	**85**	**35**	**84**

Figure 20 Youth survey findings across categories



2.4. Youth under NEET Category

25% of the total respondents were neither in employment, nor in education nor in any training.

49% of the NEET category respondents were females. Majority of the NEET respondents (41%) were between the age group of 30-34 years while 31% were between 25-29 years. **9% of the NEET respondents reported to have completed their Diploma course and 50% had completed their graduation**.

Only 5% of the NEET respondents have ever worked before. Three fourth of theses respondents in NEET category have worked for more than1 year.

94% of the female NEET respondents and 92% of the male NEET respondents wish to work in the future.

Table 9 NEET Category Respondents

Duration in NEET Category (n=90)			
	Female	Male	Total
Less than 6 months	2%	46%	13%
6 months- 1 year	27%	29%	28%
1- 2 years	20%	21%	20%
2- 3 years	5%	0%	3%
3 - 4 years	3%	0%	2%
4 - 5 years	0%	0%	0%
More than 5 years	44%	4%	33%

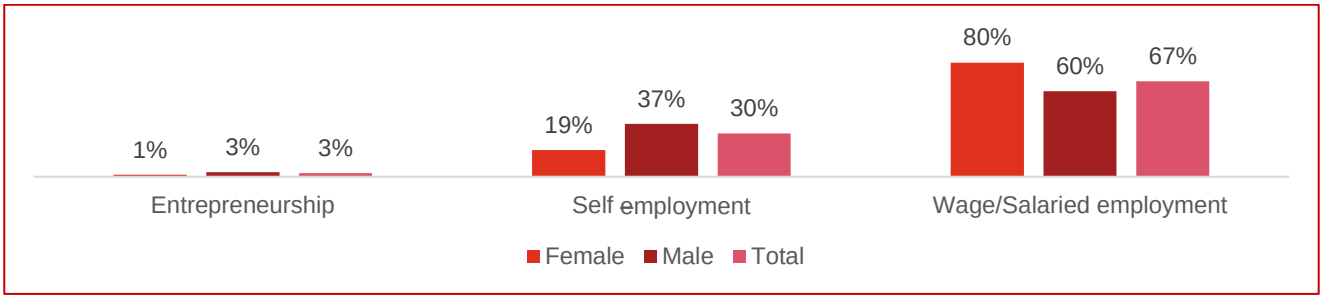
Wish to Work (n=90)			
	Female	Male	Total
Yes	94%	92%	93%
Total	66	24	90

Actively Seeking Work (n=84)			
	Female	Male	Total
Yes	29%	59%	37%
Total	62	22	84

2.5. Youth Career Aspiration

The youth in the district prefer wage-employment (67%). Both female and male respondents have shown similar interest in the pursuit of wage employment. 39% of the respondents who preferred wage employment wanted a job in the private sector while 52% were not sure about their preference. Rest 9% wanted a job in the government sector.

Figure 21 Career Aspiration of Youth



One third of the youth perceived that there is a lack of adequate employment opportunities available in the district.

The main factors determining the job aspirations of the youth are salary (wages) / income (87%), job security (55%), closeness to residence (28%) and safety / security (13%).

36% of the respondents (all excluding NEET and students) perceived that they were completely prepared for requirements for a job. The main reason for the youth perceiving themselves to be prepared for employment, is due to their available work experience in the relevant field (30%).

Table 10 Career Aspiration - Factors, Preparedness and Availability of Jobs

Factors Determining Aspiration (n=360)*	Responses	Perception of Preparedness for Jobs (n=192)	Responses
Salary (wages) / Income	87%	Completely prepared	36%
Job Security	55%	Largely Prepared	15%
Closeness to Residence	28%	Moderately Prepared	39%
Safety / Security	13%	Somewhat prepared	5%
Social Status Emigration Prospects	9%	Not Prepared	4%
Retirement plans	4%	**Availability of Job Opportunities (n=360)**	**Responses**
Flexible work arrangement	2%	Somewhat inadequate	47%
Opportunities for promotion and career development	2%	Very adequate	6%
Traditionally Acquired Skills / Family Business	2%	Neither adequate nor inadequate	4%
Gender suitable role	1%	Inadequate	32%
Employer provided benefits and perks	1%	Do not know	6%

**Multiple response question*

Financial constraint (21%) and lack of guidance / information on appropriate job available for skill levels (15%) were the major challenges faced by youth in pursuing their career aspiration. Other factors include pressure related to getting married (10%). In addition, 2% of the youth highlighted the lack of sufficient education as a challenge in pursuing their career aspiration.

*Table 11 Career Aspiration – Challenges in pursuing desired career**

Challenges	Responses	Challenges	Responses
Low financial strength	21%	Lack of jobs locally	8%

Challenges	Responses	Challenges	Responses
Lack of work experience	16%	Lack of sufficient education qualification	2%
Lack of guidance / information on appropriate job available for skill levels	15%	Lack of family support / social acceptance of girls being engaged in economic activity	2%
Pressure related to getting married	10%	Lack of technical / vocational skills	1%
Lack of Soft Skills	1%	No Challenge	34%

**Multiple response question*

Three-fifth of the youth considered that higher education is the skill most valued by employers.

The key factors determining employability of the respondents, included, level of educational attainment (39%), years of experience (24%) and certifications in technical skills (21%). Clear Communication Skills (67%), analytical thinking (32%) and team work (20%) were identified as key skills specific to their aspired jobs. **While 54% respondents were looking for apprenticeships, 24% were intending to take up a vocational / skill training program and 29% respondents were looking to continue education.**

Table 12 Key Requirements to enhance employability and steps to achieve aspirations

Key Requirements to enhance employability (n=360)			
Requirements	Responses	Requirements	Responses
Education attainment (level of education)	39%	Institution of Education / Skill Training	3%
Years of Relevant Work Experience	24%	Soft skills	3%
Certifications of Technical Skill	21%	References	1%
Relevant work experience in similar position or field	7%	Performance in Interviews	1%
Key Skills Required for desired job(n=360)*			
Clear communication	67%	Time management	4%
Analytical thinking	32%	Critical thinking and analysis	4%
Team work	20%	Leadership	4%
Creativity, originality and initiative	17%	Active listening	4%
New Steps to achieve aspirations(n=360)*			
Steps	Responses	Steps	Responses
Apprenticeship / Gathering Work Experience	54%	Continuing Education	29%
Vocational/ Skill Training	24%	Already in Pursuit	0.3%

**Multiple response question*

Career aspiration and preference of sectors varied across the gender group. Manufacturing (14%),Textile and apparel (13%), Retail (7%) and Electronics and IT hardware (7%) were the most preferred sectors among the female respondents, while the male respondents preferred sectors like Auto and auto components (19%), Manufacturing (15%), Food Processing (9%) and retail (13%). The figure below details out the gender wise career aspiration for the youth.

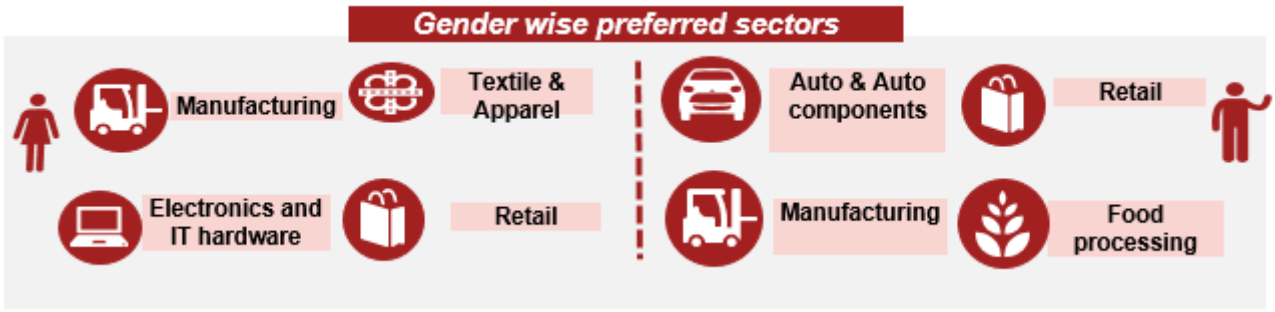
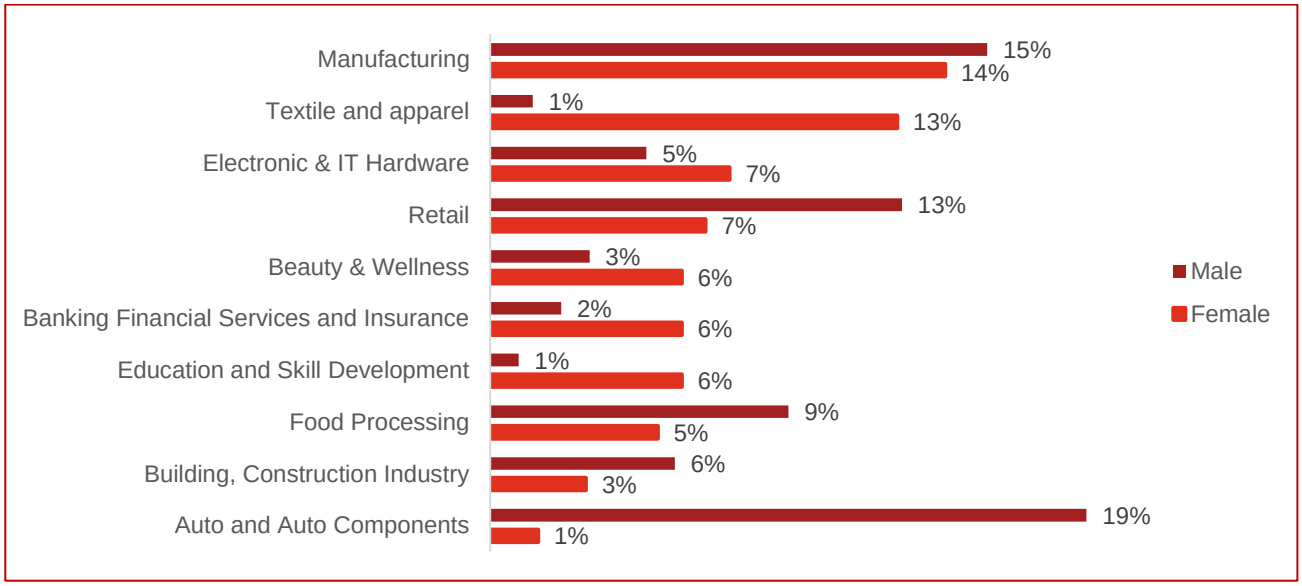


Figure 22 Sectors aspired by respondents



The median wage expectation is around ₹15,000 per month for entry level jobs. Around 39% of the respondents have expectations of monthly income greater than ₹20,000. Male respondents aspired for higher salaries compared to their female counterparts. 27% the respondents in the NEET category aspired for a monthly salary ranging between ₹ 10,001 to 20,000. Compared to respondents in self-employment[25] where 53% aspired for income above ₹ 20,000, less (39%) respondents in wage employment aspired for the same. Respondents currently in education system aspired to get a higher salary (13% wished to get salary above ₹30,000 per month).

Figure 23 Aspired monthly salary of respondents by category

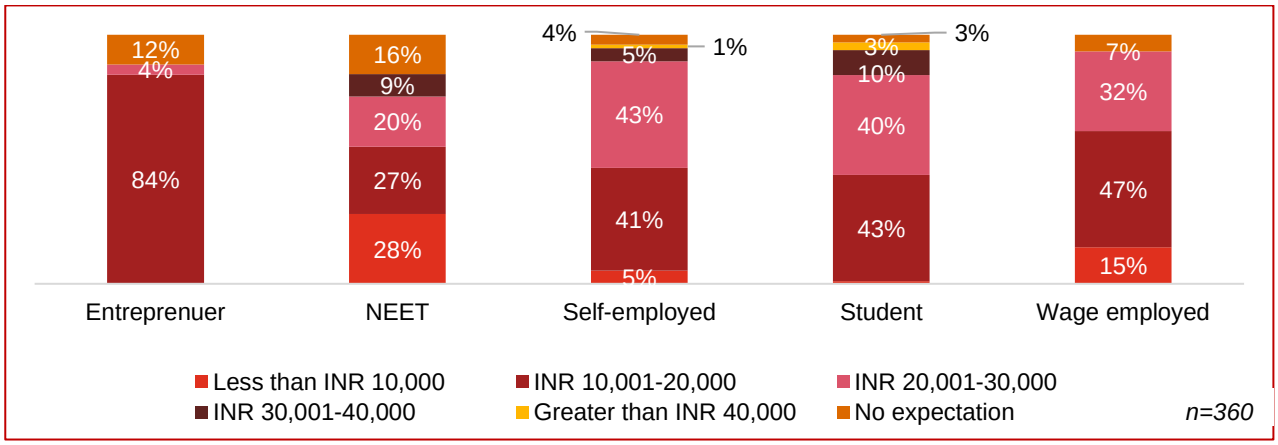
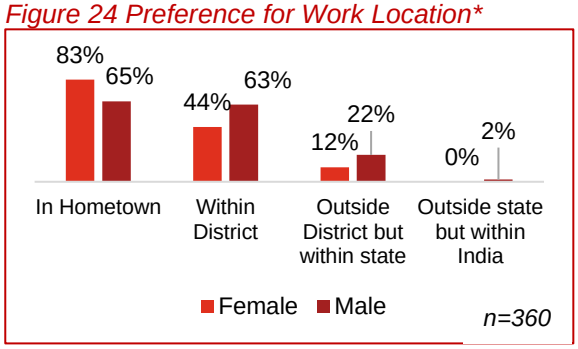


*Figure 24 Preference for Work Location**

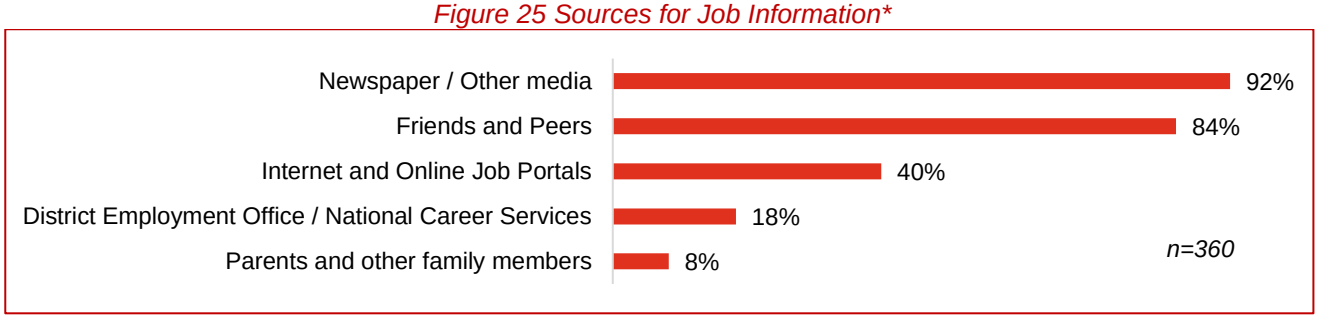


72% of the respondents preferred a job within their hometown. The respondents were reluctant to migrate outside of their hometown / district for the purpose of employment. Male respondents were ready to move outside their hometown; however, the female respondents preferred their work locations to be situated within their hometown.

**Multiple response question*

[25] Traditionally self-employment includes both enterprises and engaging in a profession/ trade on own account (as defined in the National Sample Surveys on Employment and Unemployment [http://mospi.nic.in/sites/default/files/publication_reports/nss_report_554_31jan14.pdf]. However, in this study, it has emerged that youth prefer to be engaged independently in a trade/ profession on their own account more than setting up an enterprise.

*Figure 25 Sources for Job Information**



**Multiple response question*

The most important source for the job related information was newspaper and media (92%), followed by friends and peers (84%). Internet and online job portals also played a role is providing job information (40%).

54.2% 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 (54%) and guidance on applying for desirable jobs (27%).

Figure 26 Perception on Counselling Services

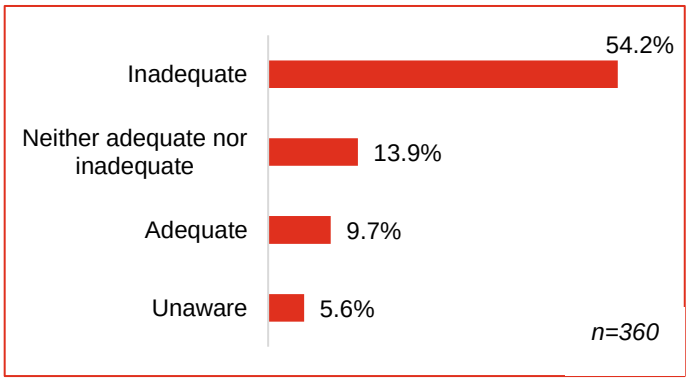
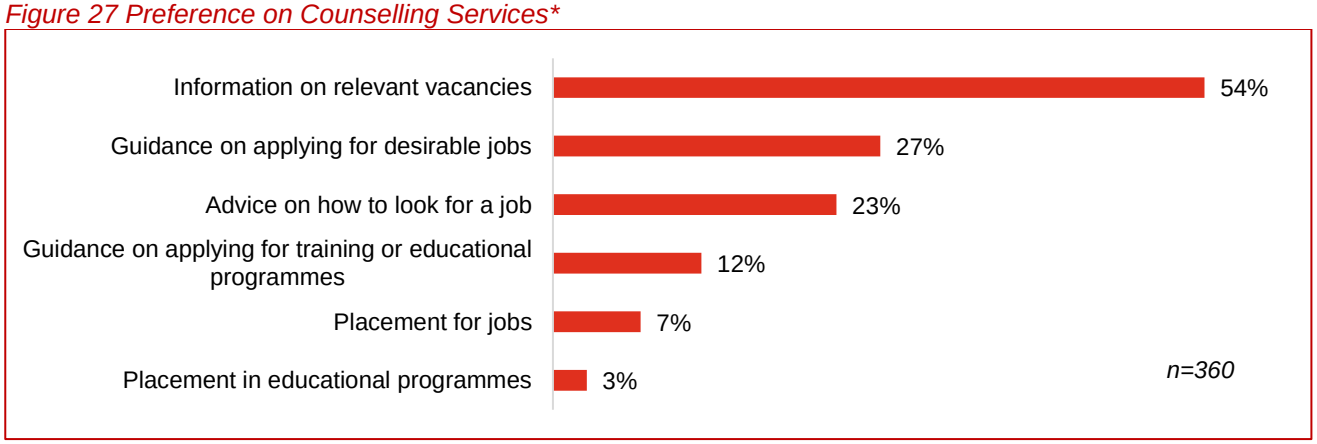


*Figure 27 Preference on Counselling Services**

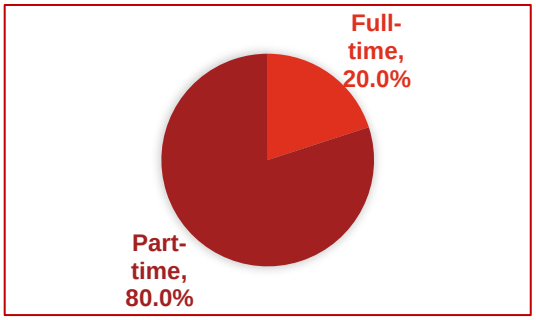


**Multiple response question*

2.6. Skill Training Preferences of Youth

Only 8% of the total respondents had awareness about Govt. run vocational programs but none of them had undergone any vocational training previously. 16% of the total respondents were interested in undertaking any vocational training. Of these respondents 91% preferred the trainings to be short term certificate courses (less than 6 months) and 80% wanted the courses to be part time in nature. Though the respondents weighed most aspects of a training program as being important, they were mostly concerned with reputation of training service provider (76%) and quality of training (76%).

Figure 28 Skill Training type interested in



Manufacturing, Auto and auto components, Retail, electronics and IT hardware and food processing were the most popular and aspired sector amongst respondents

3. Employer's and Other Stakeholder's Perspective

3.1. Employers' Perspective

The study covered employers 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.

The survey covered 31 Industries from primarily from three sectors, with highest representations from the auto and auto components, iron and steel and machinery equipment, which contribute to majority of the local economy. Almost two-third of the industries (65%) surveyed were in operations for more than 10 years.

Table 13 Sector wise coverage of Industries in Employer Survey

S.No	Sector	Number of Industries Surveyed	S.No	Sector	Number of Industries Surveyed
1.	Auto and Auto Components	12	2.	Building Construction Painting Industry	1
3.	Iron, Steel and Other Metals	7	4.	Chemical & Pharmaceuticals	1
5.	Machinery Equipment	6	6.	Power	1
7.	Textile and Apparel	2	8.	Renewable Energy & Green Jobs	1

Figure 30 Average distribution of workers

Majority of the employers (93%) recruited through employee reference, from either existing employees or known sources as a mode of recruitment.

Advertisements in Newspapers (33%) was the second most preferred mode of recruitment. Recruitment and manpower agencies (13%) and campus placements in ITIs/Polytechnics (13%) were the other modes of recruitment in the district.

The most common challenge faced by employers include the candidate disinterest and attitude (76%), followed by high local wages (66%) and lack of prior experience (10%).

*Table 14 Modes and Challenges in Recruitment Process**

Key Modes of Recruitment		
S.No	**Particulars**	**%**
1.	Employee Reference	93%
2.	Advertisements in Newspapers	33%
3.	Recruitment agencies	13%

Key Challenges faced in Recruitment		
S.No	**Particulars**	**%**
1.	Candidate Disinterest and Attitude	76%
2.	High local wages	66%
3.	Lack of Prior Experience	

The surveyed industries were largely dominated by the male workers. Semi-Skilled workers dominated the share of workforce (47.3%) followed by unskilled workers (29.9%). Most of the females employees were employed in the unskilled work as daily wage labourers for doing manual work. While 80.5% respondents affirmed sourcing migrant workers from other districts of Tamil Nadu, 85% of the respondents sourced their workers from the southern districts of Tamil Nadu. All the employers stated that they recruited employees from Eastern India. States of Bihar, West Bengal and Odisha were the key sources of migrant workers.

Figure 31 Distribution of workers-Skill Levels

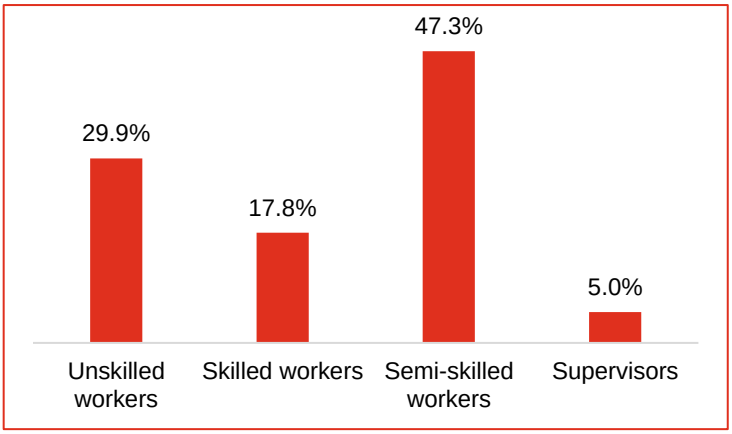
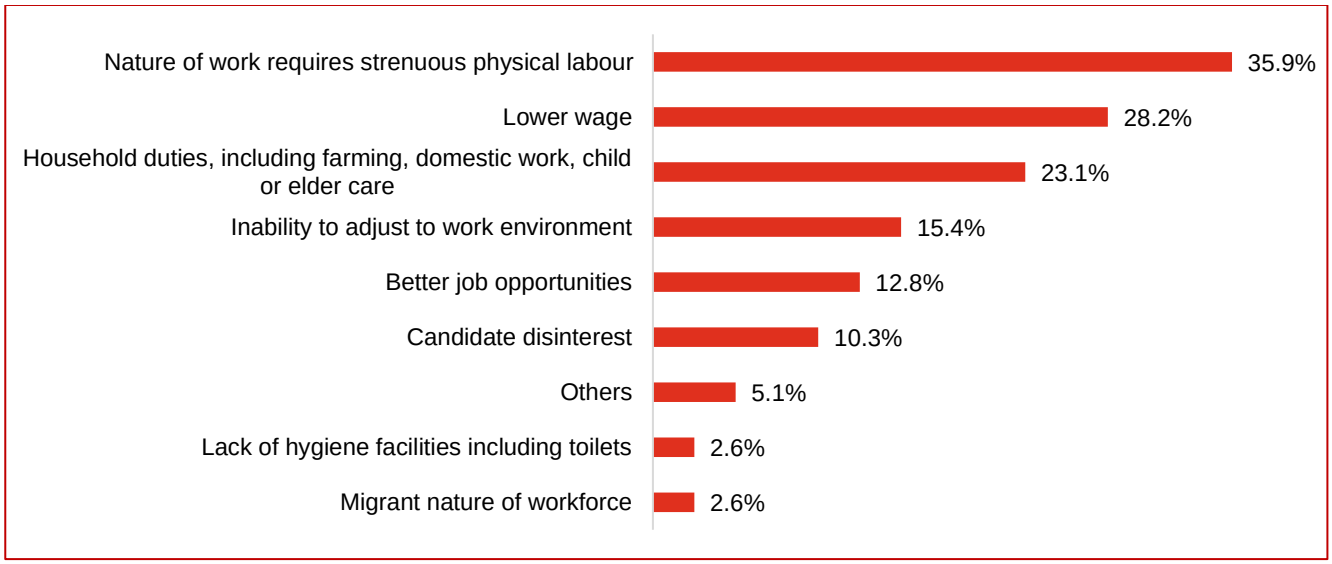


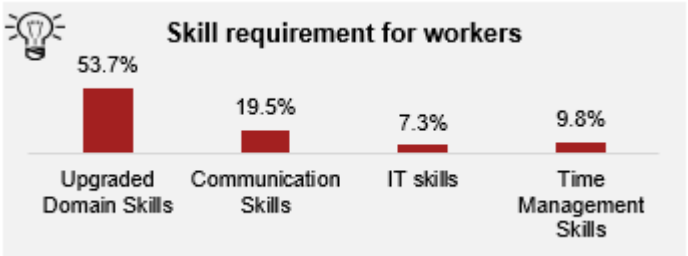
*Figure 32 Key causes of Attrition**



**Multiple response question*

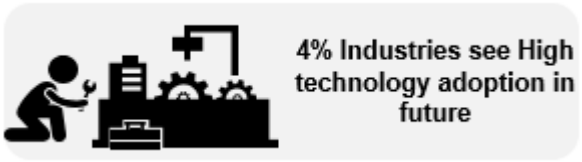
The employers estimate 40% attrition annually from their workforce.

Nature of work, lower wages, inability to adjust to work environment, better job opportunities, candidates' disinterest were the dominant cause of attrition.



More than half of the employers stated that domain skill upgradation of the workers needed utmost focus. In addition, 19.5% employers stated that communication skills trainings are required for the workers.

Only 4% of the employers feel there is high growth prospects in the industries, while 4% of the respondents see high adoption of technology in the future and only 3% of the respondents have already initiated plans in adoption of technology.



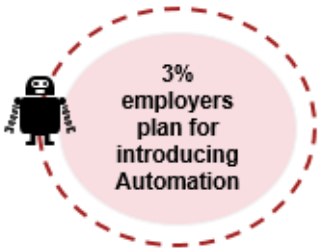


Table 15 Growth Prospects and prospective adoption of technology

Growth Prospects of Industry	%	Level of Technology adoption	%	Plans to adopt Technology	%
High	4%	**High**	4%	Yes	3%
Medium	10%	**Medium**	0%		
Low	32%	**Low**	36%	No	62.2%
Can't Say	54%	**Can't Say**	60%	Can't say	7%

Domain skills and communication skills are the two major requirements for workers.

Responses indicate that there is medium to high demand for skilled labour perceived in the next five years. However, challenges faced in recruitment in general and from institutions need attention in order to improve the quality of the work force.

3.2. Other Stakeholders' Perspective

The study also included in-depth interviews of more than 15 stakeholders including District Collector and other 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 was conducted with eight stakeholders from various organizations.

The following were the key findings from the stakeholder consultations and FGD:

Table 16: Qualitative findings Kanchipuram

S No	Topic	Responses
1.	Youth/ Candidate Attitude and Abilities	• Youth aspire for manufacturing and service-sector jobs in catering, hospitality and office-oriented white-collar jobs. • Lack of proper transportation to the industrial estates leads to attrition amongst women • In spite of completion of course, most women students are not employed, as they are reluctant to move to different city. • Training centres encourage woman trainees to take up employment in the industrial clusters of the district • Youth getting placement in local organizations, tend to attend the training period and then leave the enterprise. • Candidates' demand for higher wages leads to attrition in the industries.
2.	Education-schools, ITI/ Polytechnics/ Engineering colleges in the district	• After apprenticeships, there is no mechanism to track students. • Short-term course graduates are more willing to work in private enterprises, as they are usually unemployed, with inadequate job prospects based on their prior qualification (most are college graduates, with very few school graduates). • Students from engineering streams tend to choose additional skill courses in beauty and wellness, domestic appliance repair, and hardware repair. • As the Training institutions do not emphasize practical application of knowledge, it is difficult to absorb fresher in the industries without providing them adequate on-the job training. • Engineering diploma students lack practical application knowledge and are generally paid lesser than ITI graduates, in the recent times. They are not given proper technical training required in the job market.

S No	Topic	Responses
3.	Employment Scenario	• Retail is an upcoming sector in the district due to emergence of shopping marts and malls. Youth are employed in Food marts, Garments shops, Jewellery shops etc. Food and transportation is provided to the youth to attract them for these roles. • IT/ITeS, Automobile, auto components, textile and engineering the major employers in the district. • Female employees are mostly employed in retail, rice mills and textile sectors. • There is no sufficient transportation facility to travel to Thiurmudivakkam Industrial. One minibus current plies from Tambaram.
4.	Labour Requirements	• Job opportunities for the skilled category are present in the food processing, retail, manufacturing sectors. • The industries perceive a preference for jobs among youths in the services sector, especially in retail, food delivery and cab services over a fixed employment in manufacturing sector. • Electric cars can bring about new change in skill training requirements in the district • The labour demand for the Auto and Auto Components industry is persistent throughout the year and is not seasonal. Further, firms in the industry prefer to have a constant workforce who can work for a considerable amount of time.
5.	Migrant workers	• Most of the employees in the industrial estates are migrant workers from Uttar Pradesh, Bihar, Jharkhand and West Bengal. The tourism and hospitality sector employees workforce from North East states. • Migrant workers are employed in semi-skilled job-roles on the shop floor. Also, the IT sector houses migrants from all over the country.

4. Skill Gap Analysis

4.1. Skill Gap Assessment - Incremental Demand for Skilled & Semi Skilled Workforce

As per our methodology for estimating demand and supply, it can be seen that **manufacturing, construction, trade and repair services, education; transportation and storage, telecommunication, real estate, human health and social work activities, and repair of computers and personal and household goods** show high levels of demand for both skilled and semi-skilled workers. The detailed methodology is explained in Appendix A.2.

Table 17 Sector wise Incremental Demand for Skilled and Semi Semi-Skilled Workers between 2019 and 2025

Sectors	Incremental Demand for Skilled Workers			Incremental Demand for Semi Skilled Workers			Total Incremental Demand
	2019-21	2022-25	Total	2019-21	2022-25	Total	Total
Allied Activities (Livestock, Forestry etc.)	21	28	49	146	197	343	392
Manufacturing	10,790	16,488	27,278	21,580	32,977	54,557	81,835
Construction	3,367	5,211	8,578	8,418	13,027	21,445	30,024
Trade & Repair Services	872	1,226	2,099	3,020	4,245	7,264	9,363
Hotels and restaurants	871	1,267	2,138	1,688	2,454	4,143	6,281
Transportation and storage	2,514	3,668	6,181	6,033	8,803	14,835	21,017
Communication and services related to broadcasting	7,400	11,165	18,565	3,700	5,582	9,283	27,848
Financial and insurance activities	5,082	8,090	13,172	2,541	4,045	6,586	19,759
Real estate	2,935	4,714	7,650	7,338	11,786	19,124	26,774
Public Administration	3,003	4,359	7,363	2,403	3,488	5,890	13,253
Education; Human health & Social Work Activities	5,551	8,362	13,913	4,441	6,689	11,130	25,043
Arts, entertainment and recreation	1,470	2,157	3,627	1,176	1,726	2,902	6,529
Repair of computers and personal and household goods	4,930	7,232	12,162	3,944	5,786	9,730	21,891
Other Services	2,335	3,426	5,761	1,868	2,741	4,609	10,370
Total Demand	51,142	77,394	128,536	68,295	103,545	171,840	300,376
Total Supply	45,731	60,974	106,705	49,793	66,391	116,183	222,888
Total Skill Gap	5,411	16,420	21,831	18,502	37,154	55,657	77,488

5. District Skilling Action Plan

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 five 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.

Table 18 Summary of Trainings

S. No	Sector	Trades	Target (Persons)	Budget (₹)
1.	Automotive	• Automation Specialist • Automotive Service Technician (Two and Three Wheelers) • Brake Specialist • Customer Relationship Executive • Maintenance Technician -Electrical • Maintenance Technician-Mechanical • Repair - Welder	10,000	₹25.08 Crores
2.	Manufacturing-healthcare devices	• Quality assurance expert • Production Supervisor/ In charge • Production/ Machine Operator • Manufacturing Assistant • Packaging Supervisor/ In charge - Machine • Packaging Assistant • Maintenance Assistant • Research and development (R&D) design engineers	3,400	₹5.22 Crores
3.	Food processing	• Fruits and Vegetables Drying/ Dehydration Technician • Packing Machine Worker – Food Processing • Food Products Packaging Technician • Assistant Lab Technician - Food and Agricultural Commodities • Fruits and Vegetables Canning Technician • Industrial packing technician	4,600	₹6.29 Crores
4.	Plumbing, Electronics and Hardware	• Plumber (General) • Solar Domestic Water Heater Technician • Field Technician – AC • Field Technician – Refrigerator • Field Technician - Washing Machine • Field Technician - Other Home Appliances	3,400	₹6.1 Crores
5.	Tourism & Hospitality	• Food & Beverage Steward • Housekeeping Attendant • Chef • Billing Executive • Facility Supervisor • Tour escort and Driver • Assistant Catering Manager • Front Office Associate • Guest Relations Manager	5,880	₹8.89 Crores
6.	Construction	• Draughtsman • Construction Fitter • Fabricator • Construction Welder • Helper Electrician • Foreman – Electrical Works (Construction)	10,000	₹31.41 Crores
7.	Banking, Financial	• Life Insurance Agent • Accounts Executive (Recording, Reporting) • Goods & Services Tax (GST)	4,200	₹2.81 Crores

S. No	Sector	Trades	Target (Persons)	Budget (₹)
	services and Insurance	• Accounts Assistant • Mutual Fund Agent		
8.	IT/ITeS	• Associate - Clinical Data Management • Associate - CRM • Associate - Desktop Publishing(DTP) • Domestic IT helpdesk Attendant • Web Developer • Associate-F&A Complex	3,000	₹6.16 Crores
9.	Retail	• Cashier • Retail Sales Associate • Store Operations Assistant • Distributor Salesman • Retail Trainee Associate	3,200	₹4.31 Crores
10.	Healthcare	• Nursing • Emergency Medical Technician • Medical Records & health Information Technician • Blood Bank Technician • General Duty Assistant • Medical Equipment Technician (Basic Clinical Equipment) • Pharmacy Assistant • Medical Laboratory Technician • Ambulance Driver	6,000	₹7.16 Crores
11.	Logistics	• Inventory Clerk • Truck Driver • Fork lift operators • Warehouse Supervisor • Material Handling Equipment (MHE) Maintenance Technician • Ecommerce Operations Team Lead	2,400	₹4.17 Crores
12.	Real estate	• Real estate buyer and listing agent • Sales person • Mortgage consultant • Foreclosure specialists	1,400	₹2.2 Crores
13.	Telecom	• Broadband Technician • Customer Care Executive (Call Centre) • Customer Care Executive (Relationship Centre) • Customer Care Executive (Repair Centre) • Distributor Sales Representative • Network Engineer • Telecom Technician - IoT Device/System (Installation & M2M Communication Setup)	2,700	₹3.65 Crores
Total			**60,180**	**~₹ 113.4 crores**

Note:

1. 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.

The training projects are described below:

Table 19 Training Project 1- Automotive sector

Name of the Project: Training in Automotive sector							
Key Economic Drivers: • Sriperumbudur Auto Plants Capacity Expansion Project proposed by Hyundai at an estimated cost of 70,000 crores • Youth aspired sector • As per ASI 2014-15, motor vehicles and Parts and accessories for motor vehicles manufacturing contributed to 35% of the GVA in the district							
Key Partners: SIDCO, SIPCOT, Automobile SSC, ITI, Polytechnics							
Job Roles:	**NSQF Level**	**NSQF Code**	**Duration of Training**	**Cost Category**	**Target Group**	**Training Target (People)**	**Cost of Training (₹)**
Automation Specialist	6	ASC/Q6807	450 Hours*	1	Diploma /B. Tech/ BE in Industrial / Electrical / Electronics Engineering	500	₹1.24 Crores
Automotive Service Technician (Two and Three Wheelers)	4	ASC/Q1411	450 hours	1	Class 10th pass	2000	₹4.96 Crores
Brake Specialist	4	ASC/Q1414	450 Hours*	1	ITI in Automobile or Class 10	1000	₹2.48 Crores
Customer Relationship Executive	4	ASC/Q1106	450 Hours *	2	Class 12th pass	500	₹1.11 Crores
Maintenance Technician - Electrical (L4)	4	ASC/Q6803	450 hours	1	Diploma /B. Tech/ BE in Industrial / Production /	2000	₹4.96 Crores

					Mechanical Engineering		
Maintenance Technician-Mechanical (L3)	3	ASC/Q6805	450 Hours *	1	ITI / Mechanical Engineering / Fitter	2000	₹4.96 Crores
Repair - Welder	4	ASC/Q1902	400 hours	1	Class 8th pass	2000	₹4.4 Crores
					Total training cost	10,000	₹24.08 Crores
					Total Assessment and Certification cost (₹ 1,000 per candidate)		₹ 1 **crores**
					Total cost		₹25.08 Crores

Key Considerations:
This sector is most suited to absorb workers passing out of ITI and Polytechnic colleges. The auto and auto components sector has a credit offtake of 22% in 2013-17. Hence it is a booming sector which will increase the economic growth of the district.

**-Job roles do not have training hours mentioned. The average training hours for the sector and NSQF level within the sector, and applied those as notional hours. In some cases, insights from consultations with stakeholders are also considered.*

Table 20 Training Project 2- Manufacturing-healthcare devices Sector

Name of the Project: Training in Manufacturing-healthcare devices sector

Key Economic Drivers:

- The medical devices industry is increasingly growing within life sciences, driven by innovation and continuous technological advances.
- HLL Lifecare Ltd., a Government of India Enterprise and TIDCO, at Chengalpattu in the district in an area of 330 acre, are establishing a **Medipark** project. This shall be a dedicated manufacturing cluster for medical devices and equipment in India with state-of-art infrastructure and facilities to meet the regulatory standards and compliances in the sector.

Key Partners: HLL Lifecare Ltd, TIDCO, ITI

Job Roles:	**NSQF Level**	**NSQF Code**	**Duration of Training***	**Cost Category****	**Target Group**	**Training Target (People)**	**Cost of Training (₹)**
Quality assurance expert	-	To be developed	260	1	Graduate	100	₹0.15 Crores
Production Supervisor/ In charge	-	To be developed	260	1	ITI/ Class 12th pass	100	₹0.15 Crores
Production/ Machine Operator	-	To be developed	260	1	ITI/ Class 12th pass	300	₹0.43 Crores
Manufacturing Assistant	-	To be developed	260	1	Class 10th pass	500	₹0.72 Crores
Packaging Supervisor/ In charge - Machine	-	To be developed	260	1	Class 12th pass	300	₹0.43 Crores
Packaging Assistant	-	To be developed	260	1	Class 12th pass	1000	₹1.44 Crores
Maintenance Assistant	-	To be developed	260	1	Class 12th pass	300	₹0.43 Crores
Research and development (R&D) design engineers	-	To be developed	260	1	Graduate	300	₹0.43 Crores
Fitter Mechanical - Life Sciences	3	LFS/Q0213	260	1	Class 12th pass	500	₹0.72 Crores
					Total training cost	**3,400**	**₹ 4.87 crores**
					Total Assessment and Certification cost (₹ 1,000 per candidate)		**₹ 0.34 crores**
					Total cost		**₹5.22 Crores**

Key Considerations:
The youth can be encouraged to take up new job roles in the medical equipment making sector.

**The QP NOS for the job roles in this sector needs to be developed. Training duration of 260 hours considered for job roles without any assigned QP number. In some cases, insights from consultations with stakeholders are also considered.*
***Cost category taken as 1 for calculation purpose*

Table 21 Training Project 3- Food processing Sector

Name of the Project: Training in Food Processing sector

Key Economic Drivers:

- Expected growth and investment potential in Food processing Sector
- Food processing amongst top 3 sectors aspired by youth as per primary survey
- Largest producer of fruits in the state

Key Partners: APEDA (Agricultural and Processed Food Products Export Development Authority), ITI, Food processing sector skill council

Job Roles:	NSQF Level	NSQF Code	Duration of Training	Cost Category	Target Group	Training Target	Cost of Training (₹)
Food Products Packaging Technician	5	FIC/Q7001	240 hours	1	12th Class Pass	500	₹0.66 Crores
Industrial Production Worker – Food Processing	2	FIC/Q9005	240 hours	1	5th class Pass	1500	₹1.98 Crores
Quality Assurance Manager	6	FIC/Q7602	240 hours*	1	M.Sc.	600	₹0.8 Crores
Traditional Snack and Savory Maker	4	FIC/Q8501	240 hours	1	8th Class Pass	1000	₹1.32 Crores
Cold Storage Technician	4	FIC/Q7004	250 hours	3	12th Class,Preferably/ Diploma /ITI with certification in refrigeration	1000	₹1.08 Crores
					Total training cost	4,600	₹5.82 Crores
					Total Assessment and Certification cost (₹ 1,000 per candidate)		₹0.46 crores
					Total cost		₹6.29 Crores

Key Considerations:
This sector is most suited to absorb workers shifting out of agriculture. It is also a favorable Industry for the employment of women.

**-Job roles do not have training hours mentioned. The average training hours for the sector and NSQF level within the sector, and applied those as notional hours.*

Table 22 Training Project 4- Plumbing, Electronics and Hardware Sector

Name of the Project: Training in Plumbing, Electronics and Hardware sector

Key Economic Drivers:

- Service sector contributes to 49% of the GDDP in the district
- Urbanization will lead to increase consumption ad purchase of domestic appliances. This will lead to growth in Repair sector of domestic appliances and computers

Key Partners: ITI

Job Roles:	NSQF Level	NSQF Code	Duration of Training	Cost Category	Target Group	Training Target (People)	Cost of Training (₹)
Plumber (General)	3	PSC/Q0104	410 hours	1	10th pass	600	₹1.36 Crores
Field Technician – AC	4	ELE/Q3102	300 hours	2	8th Class+ 2 yrs	1000	₹1.47 Crores
Field Technician – Refrigerator	4	ELE/Q3103	300 hours	2	8th Class+ 2 yrs	400	₹0.59 Crores
Field Technician - Washing Machine	4	ELE/Q3106	300 hours	2		400	₹0.59 Crores
Field Technician - Other Home Appliances	4	ELE/Q3104	360 hours	2	8th pass	1000	₹1.76 Crores
					Total	**3,400**	₹5.76
					Total Assessment and Certification cost (₹ 1,000 per candidate)		₹0.34
					Total cost		**₹6.1Crores**
Key Considerations: Youth can be trained to provide services for repair of domestic appliances. ITI and Diploma graduates can also be given in this sector.							

Table 23 Training Project 5-Tourism & Hospitality Sector

Name of the Project: Training for Tourism & Hospitality Sector							
Key Economic Drivers: • Tourism is the most prominent sub sector, contributing to 24% of the service sector • Tourism contributed to 20% of share of Employment • Mahaballipuram is a major tourist hub in Kanchipuram district • Credit offtake high for tourism and hotel sector • Estimated Incremental demand of 2,500 persons in hotel and restaurant sector in next three years							
Key Partners: ITI, Tourism and Hospitality Skill Council, Tourism Department							
Job Roles:	**NSQF Level**	**NSQF Code**	**Duration of Training**	**Cost category**	**Target Group**	**Training Target (People)**	**Cost of Training (₹)**
Food & Beverage Service - Steward	4	THC/Q0301	300 hours	2	Class 10th pass	1200	₹1.77 Crores
Housekeeping Attendant (Manual Cleaning)	3	THC/Q0203	250 hours	2	Primary education	1200	₹1.48 Crores
Chef-de-partie	6	THC/Q0404	285 hours	1	Class 8th pass	600	₹0.95 Crores
Billing Executive	4	THC/Q5801	300 hours*	2	Graduate	480	₹0.71 Crores
Facility Supervisor	5	THC/Q5709	300 hours*	2	ITI	400	₹0.59 Crores
Tour Escort	4	THC/Q4402	330 hours	2	12th Class passed, Preferably	600	₹0.98 Crores
Assistant Catering Manager	6	THC/Q5901	300 hours*	3	Class 12th pass	200	₹0.26 Crores
Front Office Associate	4	THC/Q0102	280 hours	3	Class 12th pass	600	₹0.72 Crores
Guest Relations Manager	6	THC/Q0108	300 hours*	2	Class 12th pass	600	₹0.89 Crores
					Total training cost	5,880	₹8.3 crores
					Total Assessment and Certification cost (₹ 1,000 per candidate)		₹0.59 crores

Total cost		**₹8.89 Crores**

Key Considerations:
- Tourism is the most prominent sub sector, and youth can be employed in this sector easily
- Woman can be employed in the sector

**-Job roles do not have training hours mentioned. The average training hours for the sector and NSQF level within the sector, and applied those as notional hours. In some cases, insights from consultations with stakeholders are also considered.*

Table 24 Training Project 6- Construction Sector

Name of the Project: Training for Construction sector

Key Economic Drivers:

- Construction is one of the identified sectors with high skill demand in the next five years
- Investment planned- DLF Info Park Developers Ltd. have proposed Kottivakkam (Kanchipuram) DLF IT Park Project at an estimated cost of ₹24,700 crores
- Kancheepuram Industrial Park (Phase-2) Project proposed at ₹840 crores
- Multi-storey apartments are being constructed near the industrial areas

Key Partners: ITI, Polytechnics

Job Roles	NSQF Level	NSQF Code	Duration of Training (hours)	Cost Category	Target Group	Training Target (People)	Cost of Training (crores)
Draughtsman	4	CON/Q1301	600 hours*	1	ITI/ Diploma in Civil	1,200	₹3.96 Crores
Construction Fitter	3	CON/Q1205	350 hours*	1	Class 10th pass	600	₹1.16 Crores
Quality Technician	6	CON/Q0403	516 hours	1	Class 12th pas	1,200	₹3.41 Crores
Fabricator	4	CON/Q1206	600 hours	1	Class 12th pass	2000	₹6.59 Crores
Construction Welder	4	CON/Q1252	600 hours*	1	Class 10th pass	3000	₹9.89 Crores
Helper Electrician	2	CON/Q0601	350 hours	1	10th pass	1000	₹1.93 Crores
Construction Electrician - LV	4	CON/Q0603	636 hours	1	Class 10th pass	1000	₹3.5 Crores
					Total	10,000	₹30.4 Crores
					Total Assessment and Certification cost (₹ 1,000 per candidate)		₹1 crores
					Total cost		₹31.41 Crores

Key Considerations:
- Tie up with upcoming investment sites to understand the need of manpower in construction sector
- Focus on ITI graduates and diploma graduates
- Trainings can be accompanied by stipends
- Trainings can focus on sustainable practices

**-Job roles do not have training hours mentioned. The average training hours for the sector and NSQF level within the sector, and applied those as notional hours. In some cases, insights from consultations with stakeholders are also considered.*

Table 25 Training Project 7- Banking, Financial Services and Insurance Sector

Name of the Project: Training in Banking, Financial Services and Insurance sector							
Key Economic Drivers: • The large number of MSME units and have potential for better marketing and financial management of their enterprises • High credit offtake in BFSI sector • Marketing of traditional handicrafts is important to boost its growth • These skill training programs would also benefit the traditional sector artisans in the district							
Key Partners: **BFSI SSC, ITI**							
Job Roles:	**NSQF Level**	**NSQF Code**	**Duration of Training***	**Cost Category**	**Target Group**	**Training Target (People)**	**Cost of Training (₹)**
Marketing and Social Media manager	4	ASC/Q1110 *(Derived QP from Automotive sector)*	100 hours*	2	Diploma/ Graduation	500	₹0.25 Crores
GST Accounts Assistant	4	BSC/Q0910	100 hours	3	Graduation: commerce or allied subject	400	₹0.18 Crores
Mutual Fund Agent	4	BSC/Q3802	100 hours*	3	Class 12th pass	900	₹0.39 Crores
Life Insurance Agent	4	BSC/Q3801	100 hours*	3	Class 12th pass	900	₹0.39 Crores
Accounts Executive (Recording, Reporting)	4	BSC/Q1001	100 hours	3	Graduate in Commerce	900	₹0.39 Crores
Export Assistant	5	AMH/Q1601 *(Derived QP from Apparel sector)*	270 hours	2	Diploma/ Graduation	600	₹0.8 Crores
					Total	4,200	₹2.38 Crores
					Total Assessment and Certification cost (₹ 1,000 per candidate)		₹0.42 crores
					Total cost		₹2.81 Crores
Key Considerations: With the growth in BFSI sector and introduction of GSTs, there is a need to skilled workforce to work in the sector. Youth, especially woman can be trained and provided meaningful employment in this sector.							

**-Job roles do not have training hours mentioned. The average training hours for the sector and NSQF level within the sector, and applied those as notional hours.*

Table 26 Training Project 8: IT/ITeS sector

Name of the Project: Training in IT/ITeS sector							
Key Economic Drivers: • IT/ITeS cluster at Kanchipuram houses large multinational companies attracting workforce from around the country • Booming sector • High demand of skilled labour • Other large industries in the district also has demand for these job-roles							
Key Partners: Major IT firms, Large							
Job Roles:	**NSQF Level**	**NSQF Code**	**Duration of Training**	**Cost Category**	**Target Group**	**Training Target (People)**	**Cost of Training (₹)**
Associate - CRM	5	SSC/Q2202	400	2	Class 12th pass	500	₹0.98 Crores
Associate - Desktop Publishing(DTP)	7	SSC/Q2702	400	2	Bachelor's Degree in any discipline	500	₹0.98 Crores
Domestic IT helpdesk Attendant	4	SSC/Q0110	400	2	Class 12th pass	1000	₹1.96 Crores
Web Developer	5	SSC/Q0503	400	2	Graduate degree/ diploma in web	500	₹0.98 Crores

					design/ media design or any other related field		
Associate-F&A Complex	7	SSC/Q2302	400	2	Bachelor's Degree in Commerce	500	₹0.98 Crores
					Total training cost	**3,000**	**~₹ 5.86 Crores**
					Total Assessment and Certification cost (₹ 1,000 per candidate)		**₹ 0.3 Crores**
					Total cost		**~₹ 6.16 Crores**
Key Considerations: Formalization of traditional sectors is important. The existing artisans need upskilling and fresh trainings can be imparted to new entrants.							

Table 27 Training Project 9: Retail Sector

Name of the Project: Training in Retail Sector							
Key Economic Drivers: • Urbanizing population will spur the growth of large retailers • Upcoming marts and malls in the district							
Key Partners: Retail Sector skill council							
Job Roles:	**NSQF Level**	**NSQF Code**	**Duration of Training (hours)**	**Cost Category**	**Target Group**	**Training Target**	**Cost of Training (₹)**
Cashier	2	RAS/Q0102	200	2	Minimum Age - 14 Years ; Preferable Qualification shall be Minimum: Graduate	400	₹0.4 Crores
Retail Sales Associate	4	RAS/Q0104	280	2	10th Class Pass	400	₹0.55 Crores
Store Ops Assistant	1	RAS/Q0101	200	2	Secondary School Grade X Passed	600	₹0.59 Crores
Seller Activation Executive	4	RAS/Q0301	280	2	10th Class Pass	400	₹0.55 Crores
Digital Cataloguer	4	RAS/Q0302	280	2	12th Class, Preferably	800	₹1.1 Crores
Retail Trainee Associate	3	RAS/Q0103	280	2	10th Class	600	₹0.82 Crores
					Total training cost	**3,200**	₹ 3.98 **Crores**
					Total Assessment and Certification cost (₹ 1,000 per candidate)		**₹ 0.32 Crores**
					Total cost		**₹4.31 Crores**
Key Considerations: • Women can be targeted – but adequate facilities must be provided • On the job training can be provided by local retailers							

Table 28 Training Project 10: Healthcare Sector

Name of the Project: Training for Healthcare sector							
Key Economic Drivers:							
• Healthcare is a booming sector in the district. • Incremental demand of around 9000+ skilled and semi-skilled workers in next three years in this sector							
Key Partners: Hospitals, Medical colleges, Nursing colleges							
Job Roles	**NSQF Level**	**NSQF Code**	**Duration of Training**	**Cost category**	**Target Group**	**Training Target (People)**	**Cost of Training**
Emergency Medical Technician	4	HSS/Q 2301	240 hours	1	12th Pass with Science	800	₹0.45 Crores
Medical Records & health Information Technician	4	HSS/Q5501	600 hours	1	12th Pass with Science	800	₹0.45 Crores
Blood Bank Technician	4	HSS/Q2801	1000 hours	1	12th Pass with Science	600	₹0.34 Crores
General Duty Assistant	4	HSS/ Q 5101	240 hours	2	10th Pass	1000	₹0.5 Crores
Medical Equipment Technician (Basic Clinical Equipment)	3	HSS/Q5601	600 hours	1	12th Class preferably but 10th Class in certain cases	800	₹1.19 Crores
Pharmacy Assistant	4	HSS/Q5401	200 hours	2	12th Pass	1000	₹2.01 Crores
Medical Laboratory Technician	4	HSS/ Q 0301	1500 hours	1	12th Pass with Science	800	₹1.33 Crores
Ambulance Driver	4	ASC/Q9706	400 hours	1	10th class pass	200	₹0.34 Crores
					Total training cost	6,000	₹6.56 crores
					Total Assessment and Certification cost (₹ 1,000 per candidate)		₹0.60 crores
					Total cost		₹7.16 Crores
Key Considerations: The Healthcare sector has completely moved into using high-end technological medical equipment and methods for treating patients. The industry is rapidly developing, fuelled by large investments from existing corporate hospital chains and new entrants backed by private equity investors. Woman can be employed in the sector easily.							

Table 29 Training Project 11: Logistics Sector

Name of the Project: Training in Logistics Sector							
Key Economic Drivers:							
• Urbanizing population will spur the growth of large retailers- trade and transportation sector demand increases • Large industrial clusters present in the district							
Key Partners: Retailer's Association, Large industries, Logistics Sector skill council							
Job Roles:	**NSQF Level**	**NSQF Code**	**Duration of Training (hours)**	**Cost Category**	**Target Group**	**Training Target**	**Cost of Training (₹)**
Inventory Clerk	3	LSC/Q2108	250	1	12th Class	500	₹0.69 Crores
Reach Truck Operator	4	LSC/Q2111	250*	1	Middle school	300	₹0.42 Crores
Fork lift operators	4	ASC/Q9707	300	1	8th pass	500	₹0.83 Crores
Warehouse Supervisor	5	LSC/Q2307	240	1	Diploma	300	₹0.4 Crores
Material Handling Equipment (MHE) Maintenance Technician	4	LSC/Q2315	250*	1	Class 10th pass	500	₹0.69 Crores

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5.2. Key Recommendations

- **Focus training in Food processing sector:** The fruit-based nutritious beverages are gaining popularity and are in good demand in urban areas. There is good scope for the units like mango pickles, soft drinks, chocolates, masalas, bakery items and chutneys. Youth, especially women can be provided training to undertake end-end work including procurement of raw materials, processing, packaging, marketing and logistics.

  Food processing sector can be further revamped by strengthening the logistics and supply chain- This can be done by establishing Integrated Storage and Warehouses, Development of Cold Storage Infrastructure, Packaging & Barcoding. Skill training can be provided to youth in these sub-sectors.

- **Introduction of agri-marketing courses**: TNSDC can tie up with Tamil Nadu Agricultural Marketing & Agri Business to introduce courses on agri-marketing in the district.

- **Soft skill trainings-** The block of Sriperumbudur has transitioned from an agriculture into heavily industrialized block. Its proximity to the fast growing city of Chennai, numerous industrial estates and small industrial units located within the block have increased the overall economy of the district. However, the study revealed that there is a mismatch between the qualification and the skill sets of the youth and the requirements of the employers. Now-a-days, besides strong technical expertise, the employers also require the candidates to have good soft skills. Further, the industries also look forward to hire candidates based on soft skills. Thus, spoken English trainings and life skills should be imparted to the youth in the district.

- **Increase woman participation:** The upcoming investment proposed in Kanchipuram district is driven by the healthcare and tourism sectors where woman workforce is generally recruited. The nature of job requires is an enabling factor for the employers to recruit women in these industries. In order to increase the further growth of the sectors, women participation in technical job roles needs to be increased. Employers need to introduce incentives to create the appropriate working environment for better participation of woman like transport facilities, medical leave, creche system for women workers of all levels, and appropriate benefits and pay to retain workers. Introducing incentives and providing these facilities will not only increase productivity but also will also increase the retention and efficiency of the workforce.
  The healthcare and tourism sector is also expanding in Kanchipuram. 31,323 workforces are estimated to be in demand in the next six years for these three sectors (healthcare, tourism including restaurants and hotels). Such incentives will attract younger generations, especially woman to join the sectors besides motivating the currently working workforce to continue working.

- **Creation of high-skilled job roles for manufacturing healthcare devices:** The Healthcare sector has completely moved into using high-end technological medical equipment and methods for treating patients. A new Medipark is proposed to be setup in the district to manufacture medical devices and equipment. The Medipark will be a dedicated manufacturing cluster for medical devices and equipment in India with state-of-art infrastructure and facilities to meet the regulatory standards and compliances in the sector. The project is envisaged as a “one-stop facility” for manufacturing units through the creation of an integrated ecosystem to facilitate business, approvals, stimulate innovation and R&D, develop new technologies, prototyping and commercialization activities and become a hub for the sector in the country. Jobs in medical devices often appear to be quite like those in the pharmaceutical and biotechnology sector, but there are some distinct differences depending on the type of medical device being developed.

  There is a need for providing high-end skills to youth to be engaged in this niche sector. Training courses, which focus on imparting such skills, will ensure that local youth find relevant jobs, which can involve higher pay than semi-skilled job roles. Training courses can also aim for gender inclusivity, and thereby increase opportunities for women.

- **A unified job portal for job postings at all levels of skill across sectors:** Qualitative consultations with industry representatives revealed that there is a mismatch between placement practices in vocational training institutions and recruitment practices among employers. A portal for jobs/ apprenticeships open to both employers and jobseekers would enable both sides to minimize time and effort in finding suitable vacancies and profiles. Youth aspiration findings also indicate that youth prefer placement services/ guidance with respect to applying for suitable jobs. It would act as a platform to enable active connect between the employers and prospective employees, as well as prospective apprentices or internees. A common portal would fulfil this need as well.

- **Promotion of service sector opportunities among youth:** Private activity in the hospitality, tourism and retail sectors can be fostered to provide local employment to youth. Hospitality, retail and domestic appliance repair and service can absorb local youth in significant numbers, and also provide jobs suited to the needs of young women. Qualitative consultations and secondary data analysis reveal that service sectors have great demand for both skilled and semi-skilled labour in the district. Hospitality in particular can absorb workers from different education levels – college graduates can work in administration, school graduates and dropouts can work in catering, security, housekeeping and transportation.

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 was 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

The block selection methodology involved the identification of blocks by categorizing them into High development, Medium development and Low development. The adjacent picture shows the blocks in Kanchipuram selected for the survey. The methodology is explained below:

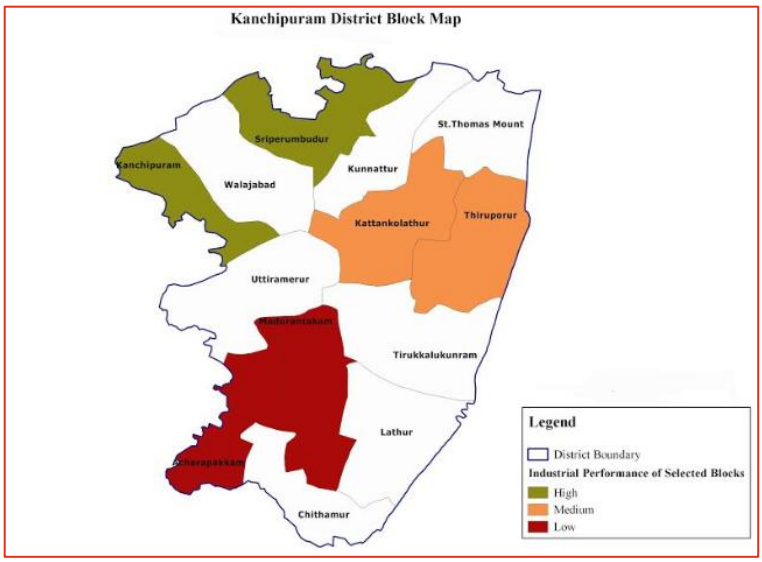
To categorize blocks, the following data points were used.

- Count of MSME Clusters (based on DC-MSME Report)
- Number of SIDCO Industrial Estates
- Number of SIPCOT Industrial Estates
- Credit Outstanding, 2017-18 at Centre-level (Annual Data published by the Reserve Bank of India)

The following weights were assigned post award of marks:

- MSME Cluster – 25%
- SIDCO Cluster – 25%
- SIPCOT Industrial Estate – 5%
- Annual Centre-level Credit Data – 45%

Figure 33 Kanchipuram block selection map



Based on the above weights, the total score of each block was calculated. The total score was capped at 100. To classify the block as High/Medium/Low, the total score was converted into percentile values and categorized into three groups – 0-33.33th percentile values, 33.33 to 66.67 percentile value and 66.67 to 100 percentile values. The percentile values are calculated with respect to each district as the base.
Based on the percentile classification obtained, blocks were classified as follows:

- **0 to 33.33 percentile value: Low**
- **33.33 to 66.67 percentile value: Medium**
- **66.67 to 100 percentile values: High**

After deriving the above values for the blocks, **t**wo blocks are randomly selected from each category.

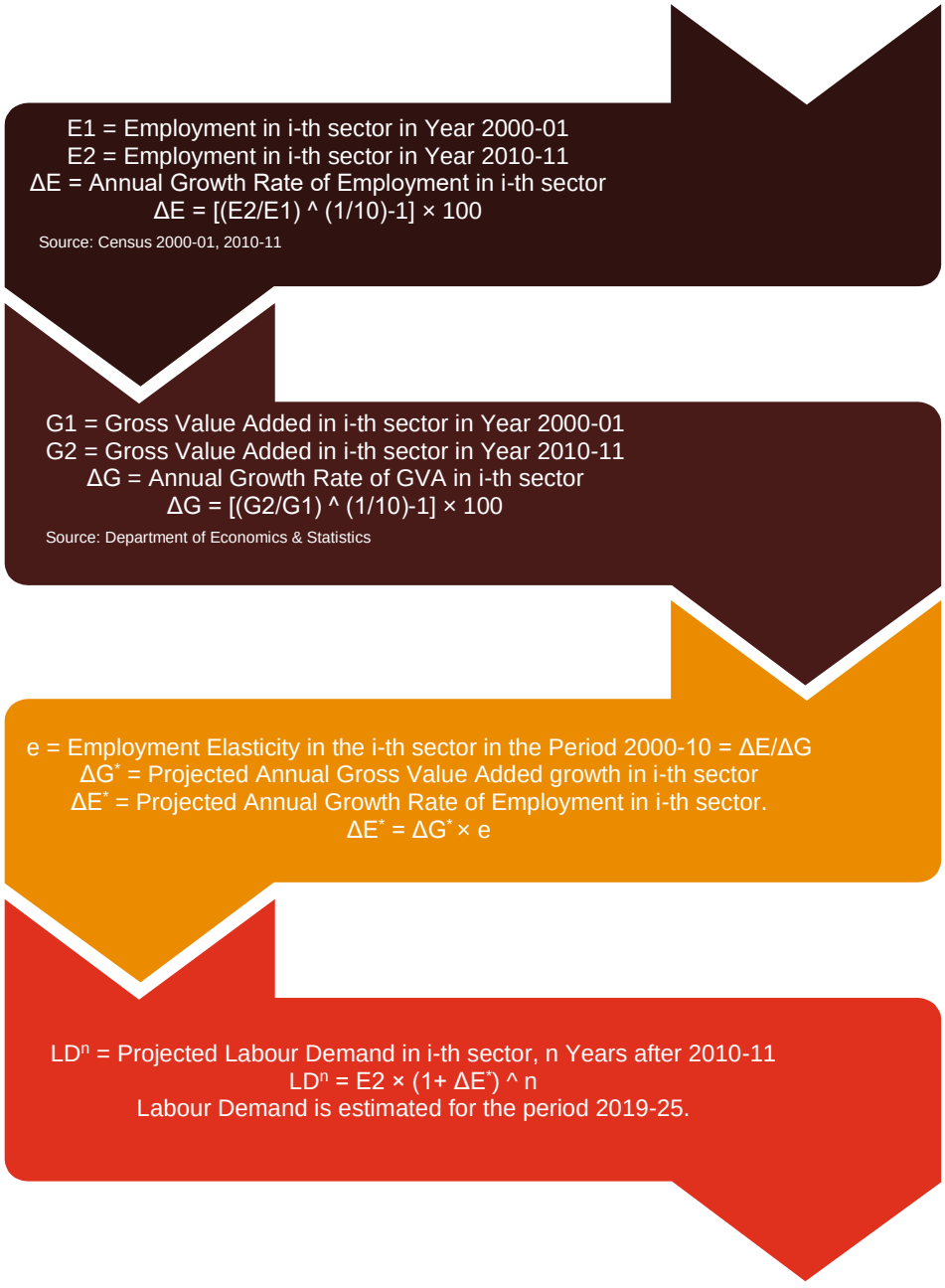
- Low- Thiruvattur, Thovala
- Medium – Agastiswaram, Rajakkamangalam
- High – Melpuram, Munchira

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 is another factor that is 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:

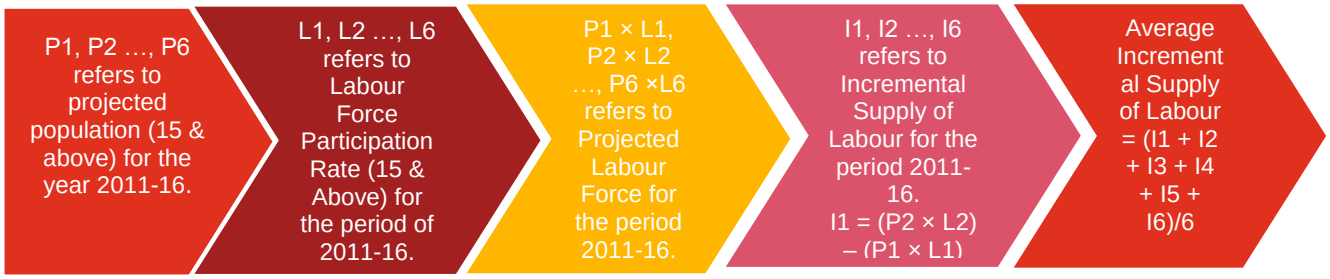
Figure 34 Steps for Demand Estimation



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[26]. 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:

Figure 35 Steps for Supply Estimation



[26] Report on Employment-Unemployment Survey, 2011-12, 2012-13, 2013-14, 2015-16 & 2017-18.

A.3 List of Stakeholders Consulted

S.No	Stakeholder	Category
1.	District Collector	Govt. official
2.	GM-DIC	Govt. official
3.	District Assistant Director- Skills Department	Govt. official
4.	District Handloom Officer	Govt. official
5.	District Employment Officer	Govt. official
6.	Weaver's service centre, Development commissioner for handlooms	Govt. official
7.	District Tourism Officer	Govt. official
8.	SIDCO , Alathur	Industry representative
9.	Mahabalipuram stone carving artisans	Other Stakeholder- Traditional Industry
10.	SIMA, Manager	Industry representative
11.	SIPCOT-SIMA training centre	Industry representative
12.	Govt. ITI	Training Service Provider
13.	Govt. Polytechnic	Training Service Provider
14.	Government College of Architecture and Sculpture	Training Service Provider
15.	TIEMA	Industry Association
16.	PASMIWA	Industry Association
17.	JC Kumarappa ITI	Training Service Provider
18.	Sri Balaji assembly Industries(P) ltd	Industry
19.	Ponmani Engineers pvt ltd	Industry
20.	Fire Tech Engineering	Industry
21.	CRP(India)	Industry
22.	Karna Reinforcements	Industry
23.	Saratha Electro Plater	Industry
24.	Dilson Auto Components	Industry
25.	Kwality Electro Platers	Industry
26.	Ajith Metal Coating	Industry
27.	Ramys Electro Gear Private Limited	Industry
28.	Kayaanlagan India Private Limited	Industry
29.	Giridhara Moulds	Industry
30.	Southern Heat Process	Industry
31.	S K P Tools	Industry
32.	H S P Industries	Industry
33.	Sree Raghavendra Electrical Services Limited	Industry
34.	SAP Industries	Industry
35.	IPL Products	Industry
36.	Mass Auto Components	Industry
37.	Motherland garments (p) LTD.	Industry
38.	RK Industries	Industry
39.	AYJ Forgings	Industry
40.	Radial Trading Centre	Industry
41.	Sri S.M.A Industries	Industry
42.	Sibas Ultra Sonics	Industry
43.	Natlin Engineering Works	Industry
44.	European Flavors & Fragrances	Industry
45.	Manali Lubricants Pvt Ltd	Industry
46.	sasco silencer Pvt Ltd	Industry
47.	Trident Tools Pvt Ltd	Industry
48.	Sri Lakshmi Coats	Industry