Case Study



# Job Opportunities and Labour Market Participation: A Case Study of Jammu City, India

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Abstract: The study explores the scope of job opportunities and labour market participation of youth in Jammu City, India. In recent years, India has observed significant changes in its economic conditions and the study provides an understanding of different aspects of job opportunities and labour market participation at the regional level and helps in framing informed policy decisions. The study uses a mixed-method approach, combining quantitative data analysis to find the relationship between the variables and qualitative interviews with local respondents. Quantitative analysis examines employment trends in various occupational sectors and the impact of education and gender on labour market participation. Qualitative interviews provide insights into the challenges and opportunities faced by respondents for labour market participation in Jammu City. The paper discusses educational attainment, the relationship between labour market participation and insufficient job opportunities, transition patterns, educational and working status. The study reveals that Jammu City's labour market is diverse, in both general and vocational educational respondents and factors such as education, job opportunities, gender and geographic location influence labour market participation. Moreover, the study reveals large participation of respondents in informal jobs and self-employment due to the lack of government jobs and the worse political situation of the state. The study draws implications for policymakers to promote inclusive economic growth and improve labour market outcomes in this region. Furthermore, research and policy measures also address the complexities of job opportunities and labour market participation in Jammu City which ultimately enhances the overall socio-economic well-being of the study area.

Keywords: job opportunities, labour market participation, education, youth, informal jobs

JEL: J62, J21, J29, J13, J46

# **1. Introduction**

Job opportunities and labour market participation are important aspects of modern society with changing economy and shifting job demands. Adaptation to new skills, experiences, technologies and job requirements is important for sustaining in the labour market. Labour market participation includes active participation of the workforce and serves as a key indicator for assessing the population's involvement in economic activities such as paid work, self-employment, part-time and contractual. While those not participating in the labour market comprise students, retirees and those who are unable or unwilling to work. In India, the labour market participation rate stands at 40%, but along with gender

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and urban-rural disparities exist, with higher male participation and urban areas showing greater engagement (Pandey, 2022). Job opportunities refer to vacant employment positions that require qualified individuals to fill them. These opportunities are in constant flux, influenced by factors like job availability, seat numbers, salaries, age considerations and location.

Labour market participation is influenced by number of economic, social, demographic, health-related, family responsibilities and geographical factors (Raghunath & Raghupathi, 2020). These factors have direct impact on individuals labour market participation and impact regional economies. The ever-changing nature of labour market participation is closely linked to changing technologies and job requirements. The average person switches jobs twelve times in their career (Baum, 2020). Labour market participation and the availability of job opportunities are helping individuals in securing employment or re-enter the job market. Emerging job opportunities and the necessary skills for these industries offer recommendations for smoother transitions and labour market participation (Jackson & Tomlinson, 2020). The advent of the Fourth Industrial Revolution, characterized by globalization and digitalization, has brought significant changes to work and employment skills (Nawawi et al., 2023).

In response to changes, policymakers and organizations must educate individuals about the importance of acquiring new skills for smart industrial specialization and digital transformation (Ahmad, 2020). This transformation affects the global labour market, highlighting challenges and opportunities within the Fourth Industrial Revolution. This includes the creation of quality jobs with adequate salaries, social protection and opportunities for skill development and career advancement (Deganis et al., 2021).

The impact of the COVID-19 pandemic on the labour market is significant, with millions losing jobs and lowskilled workers suffering from income reductions. Thus, there's a pressing need to develop new skills and competencies with economic and technological advancements (Su et al., 2021). Currently, the global job market recovering from the pandemic and demand for skilled workers is increasing in fields such as IT, data analysis and cybersecurity. Employers are working to create more inclusive working environments and remove employment barriers by expanding online job portals. However, skill disparities persist in many labour markets. Moreover, job market and labour market participation trends will continue to evolve in response to technological advancements, demographic shifts and social and economic changes (Gouda, 2022).

Job opportunities and labour market participation are important for both individual success and societal stability. The status of individuals in the job market, their transition pathways and the ever-changing job landscape are the factors that impact income, employment opportunities and career development. Understanding of labour market participation and available employment opportunities, along with the issues and challenges involved is required for policymakers, educators and employers in making decisions on employment policies, labour market participation and facilitating smooth transitions to achieve career objectives and promote inclusive growth and job creation.

Furthermore, this paper is helpful in analyzing job opportunities and labour market participation and serves as valuable indicator for examining job participation rate and understanding the unemployment aspects of respondents in the study area. The studies and reports discussed above provide valuable insights into the factors that influence job creation, worker retention, job stability and career progression.

# 2. Review of literature

The current study on job opportunities, labour market participation and gender disparities in India builds upon the foundation of earlier research, weaving together comprehensive narrative that captures the evolving dynamics of the country's economic landscape. The transformative impact of India's economic shift on employment patterns and wage structures has been profound, reshaping traditional job sectors, fostering the growth of new industries and influencing the overall dynamics of income distribution across the country (Rodgers, 2020). This aligns seamlessly with the current study's emphasis on the implications of the economic transformation, particularly reshaping of the job landscape toward skilled and service-oriented positions. The persistent prevalence of the informal sector and associated issues, such as low wages and inadequate social security, resonate with the concerns highlighted in the present research (Roy & Barua's, 2023). Exploration of the services sector's expansion merges with the current study's focus on the driving forces behind India's economic transformation, particularly in IT, e-commerce and business process outsourcing (Gupta & Basole's,

2020). The role of the informal sector aligns with the present research, emphasizing persistent wage disparities within this sector (Schminke & Fridell, 2021).

Transitioning to gender disparities forms a crucial link in setting the stage for understanding the challenges women faced in labour force participation (Demir, 2021). Besides cultural norms, educational disparities and infrastructure limitations, women's access to equal opportunities in the labour market is hindered by deeply ingrained societal expectations that often prioritize their roles in childcare and domestic responsibilities (Rani et al., 2023). This multifaceted challenge emphasizes the need for comprehensive policy measures aimed at addressing not only workplace gender disparities but also the broader socio-cultural factors influencing women's participation in the labour force (Demir, 2021). The study highlights the challenges faced by them in labour market participation. In this evolving economic context, addressing these challenges is important for achieving more inclusive and equitable development in India.

The interaction between job opportunities and labour market participation is dynamic that significantly influences the overall engagement of individuals in the workforce. The availability of employment directly impacts labour market participation by serving as a primary motivator for individuals to seek and secure employment (Cristea et al., 2022). Economic incentives, driven by the prospect of income and improved financial well-being, play a pivotal role in encouraging participation. Moreover, the nature and abundance of job opportunities contribute to skill development as individuals strive to align their capabilities with market demands.

The ebb and flow of the labour market are closely tied to the dynamics of job availability. In environments with ample job opportunities and labour force participation as people actively seek and secure employment (Wilson et al., 2021). Conversely, a scarcity of job openings can lead to a decline in participation rates, with discouraged workers potentially withdrawing from the workforce altogether (Fossati et al., 2021). Demographic factors further shape the relationship between job opportunities and labour market participation. Variables such as age, gender and educational background influence how individuals respond to available job prospects. Additionally, the social and economic implications of employment extend beyond personal income, impacting overall well-being and societal standards of living (Van Berkel, 2021). Government policies play a crucial role in shaping this relationship. Policies that foster job creation and reduce barriers to labour market entry can positively impact participation rates (Ballo, 2020). Conversely, restrictive policies may impede job opportunities, leading to a reduction in overall workforce engagement.

In essence, the relationship between job opportunities and labourr market participation is a key consideration for policymakers, researchers and businesses. Understanding these dynamics is essential for cultivating a resilient and inclusive labour market that not only meets the economic needs of individuals but also contributes to broader societal progress. The Study focuses on understanding the current employment scenario, identifying growth sectors, analyzing skill gaps, evaluating the impact of technology on employment and investigating socio-economic factors affecting labour market participation. It encompasses with multi-dimensional approach to provide a holistic understanding of the factors influencing job opportunities in the region. The research explores into comprehensive case study elucidating the intricate dynamics of the local employment landscape. Moreover, the study establishes connections with earlier works in the field, contributing to a broader understanding of the subject matter.

With this backdrop, the recent literature emphasizes labour market participation and its impact on employment, wage disparities, gender disparities and the informal sector. By building together these earlier works, the current study not only extends existing knowledge but also provides holistic understanding of the evolving economic context in India, crucial for fostering inclusive and equitable development. It highlights the need for suitable policy framework that can mitigate their challenges and ensure inclusive economic growth and improve labour market outcomes in the study area.

## 3. Significance of study

The proposed study on job opportunities and labour market participation in Jammu City, India, holds significant importance as it aims to provide a thorough understanding of the local job market dynamics. By analyzing trends, challenges and emerging opportunities, the study becomes important tool for informed policy formulation. Policymakers can utilize the insights gained to design targeted strategies that address specific needs and challenges faced by the local workforce. The emphasis on identifying key growth sectors, conducting skill gap analyses and evaluating the impact of technological advancements on employment trends contributes to the strategic economic growth of the

region. Furthermore, the study explores socio-economic factors that influence labour force participation, such as gender disparities and education gaps and plays an important role in promoting inclusive policies. By addressing identified challenges and leveraging opportunities the research aims to establish a resilient and prosperous local economy, attracting business, investment and contributing to overall development. The study's findings can guide the development of education and training programs, ensuring that the local workforce is equipped with the necessary skills for emerging industries. In essence, this research serves as a cornerstone for fostering a more vibrant, inclusive and adaptive job market in Jammu City, with far-reaching implications for policymakers, educators, businesses, investors and the community at large.

## 4. Socio-economic profile of study area

Jammu, located in the northern part of India, is the winter capital of the union territory of Jammu and Kashmir. The city has a diverse population that includes various ethnic and religious groups. The majority of the population consists of Hindus, but there is also a significant Muslim population. The demographic composition reflects the multicultural nature of the region. It consists of rich cultural and historical significance and a prominent hub for pilgrimage and tourism. Situated on the banks of the Tawi River, Jammu is the largest city within the Jammu district, surrounded by the northern plains and the Himalayan range to the north and south respectively.

As per the economic background of Jammu city, well known for tourist destinations, driven by historical and religious sites which stimulate economic activity in hospitality, transportation and associated services. Jammu's strategic location enhances its status as a commercial hub, facilitating trade and commerce through well-established markets and business activities. The industrial sector encompasses with textiles, food processing and small-scale industries supported by industrial estates. Simultaneously, service-oriented industries such as healthcare, information technology and financial services play a vital role in its economic development. Regarding skills in demand, information technology proficiency, hospitality, tourism management, modern agricultural practices, traditional handicraft skills and business and management expertise are all valuable in the dynamic labour market of Jammu. Furthermore, there is an insufficiency of these skills that can contribute to the overall economic development and resilience of the city.

# 5. Objectives of the research paper

The paper attempts to analyse the following objectives:

- To examine the level of education attainment for decent jobs.
- To examine the job participation of respondents.
- To analyse the relationship between labour market participation and insufficient job opportunities.
- To access the education and working status of respondents.
- To analyse the transition pattern of labour market participation of respondents.

• To draw challenges faced by respondents and suitable policy implications for labour market participation in the study area.

## 6. Research methodology

### 6.1 Selection of the study area

For research purposes, one of the two divisions within the Jammu and Kashmir Union Territory, the Jammu Division, was selected at random. Within this division, Jammu District was chosen, comprising seven sub-divisions. Among these sub-divisions, Jammu North and Jammu South were purposively selected due to their high population density and predominantly urban demographics and described as "Jammu City" for this research as shown in Figure 1.

#### 6.2 Sample design and sample size

Jammu City encompasses five tehsils and seventy-five wards. From these wards, five specific ones-Panjtirthi (01), Pacca Danga (10), Shastri Nagar (22), Rehari Colony (24) and Tallab Tillo (30)-are selected for the study due to high concentration of pass-outs in 2010 and found as Panjtirthi (625), Pacca Danga (901), Shastri Nagar (297), Rehari Colony (157) and Talab Tillo (297), as per data from the Jammu and Kashmir Board of School Education. A time span of 10-12 years was considered appropriate to comprehensively examine the initial job transition process for respondents within the age group of 25-30 years. This duration was selected to mitigate potential age-related biases, as it covers the period during which these respondents would have entered the job market and experienced their first job transition. A sample of 340 respondents is drawn from the total educational pass out of 2,277 in these five wards and their sample size for each of these wards is 93, 135, 44, 24 and 44, respectively using solvin's formula which is given as:  $n = N/(1 + Ne^2)$ .

Where, n = Sample size, N = Population size, e = Margin of error. According to the formula,

$$n = 2277 \div 1 + 2277 \times 0.05 \times 0.05$$
$$= 2277 \div 6.6925$$

= 340



Figure 1. Jammu city map Source: Jammu Municipal Corporation, 2016

#### 6.3 Data collection and respondent

Data collection was done through a well-structured questionnaire through personal interviews method. All the respondents are covered in the sample while those who were not available and migrated to other places on grounds of education, employment and marriage were provided online questionnaires for information and the survey was collected in the year 2021. Subsequently, the collected data was tabulated and analyzed using appropriate statistical techniques, including descriptive statistics to facilitate scientific information. The goal was to derive meaningful insights, research findings and policy implications from the analysis.

## 7. Profile of respondents

Table 1 indicates the profile of respondents who completed their education in the year 2010. The objective is to understand their transitions in the labour market over a period of 10-12 years, specifically in the year 2010, when they would have completed their school education and vocational education to secure their first job, received promotions, pursued further education or started businesses. The respondents ages range from 25 to 35, and the sample comprises 198 males and 142 females to analyse labour market transition patterns.

In terms of demographics, the total sample size is 340, with 93 respondents from Panjthirthi, 135 from Pacca Danga, 24 from Rehari, 44 from Shastri Nagar and 44 from Tallab tillo. The majority of respondents comprises of Hindus, followed by Muslims, Sikhs, Buddhists, Christians and Jains. In terms of caste, the majority belong to the General category (64.42%), followed by Other backward class (OBC) (17.06%), Schedule castes (SC) (11.76%) and Schedule tribes (ST) (6.76%). Regarding family size, the households consist of 4-6 members (74.41%) and 7-8 members (17.95%), less than < 4 members (6.47%) and more than 8 members (1.17%). This reflects the prevalence of nuclear families in Jammu city.

Regarding the highest educational attainment, the majority of respondents are graduates or have higher qualifications, including general and vocational education (92.65%) and having completed higher secondary education (7.06%) and secondary education (0.29%). In terms of employment, the majority of males (55.70%) are engaged in private sector jobs due to the limited availability of government jobs, stiff competition and selection process. Among females, 67.09% are in private jobs, primarily due to a lack of the required skills and experiences for various jobs. As for income, 55.71% of males have salaries between 30,000 and 40,000, which may include government jobs, private sector employment or self-employment. Among females, 67.09% with salaries between 30,000 and 40,000 are in contractual jobs.

As far as socioeconomic condition is concerned, the study reveals that most households have basic amenities such as televisions, Liquid Crystal Displays (LCDs), refrigerators and mobile phones. However, they lack washing machines, computers/laptops, Air Conditioning (AC) units and water purifiers due to their low source of income. In terms of transportation, they have their four-wheelers (cars/vans) and two-wheelers (scooters and motorcycles). Fewer households have vehicles like trucks, buses, matadors, bicycles, or three-wheelers (autos). Basic assets like Liquefied Petroleum Gas (LPG) connections and pressure cookers are common among these households, while items like mixer grinders and electric cooking stoves are less prevalent due to varying income levels. Regarding infrastructure, these households have access to healthcare centres, drinking water, electricity, schools/colleges, post offices, banks, police stations and ration shops. However, the study found that Ward Pacca Danga lacks healthcare facilities and households have to rely the on government and nearby private hospitals and clinics.

			Demographi	c profile			
Gender	Panjtirthi	Pacca Danga	Rehari Colony	Shastri Nagar	Tallab Tillo		Fotal
Male	56 (60.22)	77 (57.04)	11 (45.84)	25 (56.82)	29 (65.91)	198	(58.24)
Female	37 (39.78)	58 (42.96)	13 (54.16)	19 (43.18)	15 (34.09)	142	(41.76)
Total	93 (27.35)	135 (39.70)	24 (7.05)	44 (12.94)	44 (12.94)		340
			Religi	on			
Gender	Hindu	Muslim	Sikh	Buddhist	Christian	Jain	Total
Male	139 (70.21)	24 (12.13)	18 (9.09)	9 (4.54)	7 (3.53)	1 (0.50)	198 (58.24)
Female	105 (73.95)	14 (9.85)	11 (7.75)	9 (6.33)	3 (2.12)	-	142 (41.76)
Gender	244 (71.77)	38 (11.17)	29 (8.53)	18 (5.29)	10 (2.95)	1 (0.29)	340
			Caste	e			
Gender	General	SC	ST	OBC	]	Fotal	
Male	118 (59.59)	26 (13.13)	12 (6.07)	42 (21.21)	198	(58.24)	
Female	101 (71.12)	14 (9.86)	11 (7.76)	16 (11.26)	142	(41.76)	
Total	219 (64.42)	40 (11.76)	23 (6.76)	58 (17.06)		340	
			Family	size			
Gender	< 4	4-6	7-8	> 8	]	Fotal	
Male	16 (8.08)	148 (74.75)	31 (15.65)	3 (1.52)	198	(58.24)	
Female	6 (4.22)	105 (73.94)	30 (21.12)	1 (0.70)	142	(41.76)	
Total	22 (6.47)	253 (74.41)	61 (17.95)	4 (1.17)		340	
			Educat	tion attainment			
Gender	Sec	ondary	Higher S	Secondary	Graduate and above		Fotal
Male		-	22 (1	11.12)	176 (88.88)	198	(58.24)
Female	1 (	(0.71)	2 (1	1.41)	139 (97.88)	142	(41.76)
Total	1 (	(0.29)	24 (	7.06)	315 (92.65)		340
			Employmer	nt status			
Gender	Government	Private	Self-employed	Contractual	Part-time		Fotal
Male	24 (16.11)	83 (55.70)	36 (24.16)	3 (2.02)	3 (2.01)	149	(65.35)
Female	13 (16.46)	53 (67.09)	5 (6.33)	6 (7.59)	2 (2.53)	79	(34.65)
Total	37 (16.23)	136 (59.65)	41 (17.98)	9 (3.95)	5 (2.19)		228
			Income	(Rs)			
Gender	< 20,000	20,000-30,000	30,000-40,000	40,000-50,000	> 50,000	-	Fotal
Male	3 (2.01)	3 (2.01)	83 (55.71)	36 (24.16)	24 (16.11)	149	(65.35)
Female	2 (2.54)	6 (7.59)	53 (67.09)	5 (6.33)	13 (16.45)	79	(34.65)
Total	5 (2.19)	9 (3.95)	136 (59.64)	41 (17.98)	37 (16.24)		228

Table 1. Socio-economic profile

Note: Figures in parentheses represent the percentages of individual wards in the column total and all the wards as rows total, Schedule caste (SC), Schedule tribe (ST), Other backward class (OBC) Source: Author's own data collection, 2021

# 8. Tabulation and analysis of data

The categorization of data as tabulation and analysis is subdivided into five distinct sections, each corresponding to a specific objective outlined in the study.

## 8.1 To examine the level of education attainment for decent jobs

Education attainment is a determinant for economic success, enhancing the standard of living and attaining stable, well-paying jobs. A direct relationship exists between the level of education achieved and job quality, measured by factors like job security, benefits and job satisfaction (Green, 2021). Moreover, individuals with higher education levels, such as bachelor's and master's degrees, tend to enjoy better job quality as compared to those with lower educational qualifications (Livingston & Reddy, 2022). A decent job is generally defined as one that provides stable and fair compensation along with benefits such as health insurance and retirement plans. It allows for a healthy work-life balance, fosters job satisfaction and offers opportunities for personal and professional growth. A decent job is characterized not only by financial stability but also by a supportive work environment that ensures the well-being and fulfilment of the employee (Ahlquist, 2023).

Level of education	Gender	Panjtirthi	Pacca Danga	Rehari Colony	Shastri Nagar	Tallab Tillo	Total
	Male	2 (3.57))	1 (1.29)	_	1 (4)	3 (10.35)	7 (3.54)
Higher secondary	Female	-	-	-	1 (5.26)	-	1 (0.70)
	Total	2 (2.16)	1 (0.74)	-	2 (4.54)	3 (6.81)	8 (2.35)
-	Male	25 (44.65)	28 (36.37)	5 (45.45)	9 (36)	10 (34.48)	77 (38.88)
Graduation	Female	10 (27.02)	16 (27.58)	3 (23.07)	2 (10.52)	7 (46.66)	38 (26.76)
	Total	35 (37.64)	44 (32.59)	8 (33.33)	11 (25)	17 (38.63)	115 (33.82)
-	Male	8 (14.28)	17 (22.08)	1 (9.09)	1 (4)	4 (13.79)	31 (15.66)
Post graduation	Female	16 (43.25)	24 (41.38)	5 (38.47)	1 (5.27)	5 (33.34)	51 (35.91)
	Total	24 (25.80)	41 (30.37)	6 (25)	2 (4.54)	9 (20.46)	82 (24.11)
-	Male	2 (3.57)	2 (2.59)	-	1 (4)	-	5 (2.53)
Doctoral	Female	2 (5.40)	2 (3.45)	4 (30.77)	8 (42.10)	1 (6.66)	17 (11.98)
	Total	4 (4.30)	4 (2.96)	4 (16.67)	9 (20.45)	1 (2.28)	22 (6.47)
	Male	19 (33.93)	29 (37.67)	5 (45.46)	13 (52)	12 (41.38)	78 (39.39)
Vocational education	Female	9 (24.33)	16 (27.58)	1 (7.69)	7 (36.84)	2 (13.34)	35 (24.65)
	Total	28 (30.10)	45 (33.34)	6 (25)	20 (45.47)	14 (31.82)	113 (33.24)
-	Male	56 (60.22)	77 (57.04)	11 (45.84)	25 (56.82)	29 (65.90)	198 (58.24)
Total	Female	37 (39.78)	58 (42.96)	13 (54.16)	19 (43.18)	15 (34.09)	142 (41.76)
	Total	93 (27.35)	135 (39.70)	24 (7.05)	44 (12.94)	44 (12.94)	340 (100)

Table 2. Level of education attainment required for decent job

Note: Figures in parentheses represent the percentages of respondents of individual wards in column total and all the wards in rows total Source: Author's own data collection, 2021

Table 2 shows the responses for decent jobs after educational attainment and its significance in securing quality employment. In the context of this study, data reveals the responses for decent jobs as 33.82% graduation level of education, 33.24% vocational education, 24.11% post-graduate qualification, 6.47% doctoral degrees and 2.05% higher secondary education. Notably, respondents from these wards tend to prefer transitioning outside the city for the sake of acquiring higher-quality education and securing decent job prospects. For entry-level job requirements, skill enhancement adaptability in a competitive job market and potential for higher earnings graduation is required as the minimum education. This helps individuals in making decisions about their educational and career paths. It is also significant for employers in shaping their career paths and investing in the education and training of their workforce.

#### 8.2 To examine job participation of respondents

The study will evaluate the job participation of respondents by analyzing their current employment status, job satisfaction, industry involvement and job type. This examination aims to uncover patterns and barriers influencing workforce engagement, providing valuable insights for improving employment opportunities.

#### 8.2.1 Job participation after completing general education

General education involves foundational and diverse learning in subjects like mathematics, sciences, social sciences, humanities and the arts. It aims to develop essential skills such as critical thinking and communication. Typically, it is part of higher education, general education ensures education beyond student's specific major, fostering broad understanding of various subjects and skills (Bisht & Pattanaik, 2021). With the changing job market, it is important to emphasize the importance of acquiring education and ensuring stable and enduring employment opportunities. General education equips individuals with comprehensive foundation of knowledge and experience paving the way for successful careers (Presti et al., 2022). This form of education plays a vital role in preparing individuals for the dynamic landscape of the labour market (Okay-Somerville & Scholarios, 2022). Individuals with background in general education find themselves presented with diverse variety of job opportunities based on their skill sets and experiences.

Table 3 presents an overview of job participation after completion of their general education. The findings of the present study reveal that 47.37% of respondents are employed in the private sector, 25.43% are engaged in business, 13.16% have chosen careers in teaching, 7.02% work in the banking sector and 2.63% hold positions in both management and defence, respectively. Additionally, 1.75% of respondents are administrators. Notably, a predominant percentage of females, accounting for 56.09%, opt for private jobs due to factors such as the scarcity of government jobs, skill mismatch and the ease of managing domestic responsibilities while pursuing a career. In comparison to different wards the Pacca Danga ward stands out as the primary hub for job participation among respondents especially after completing their general education across various sectors. A notable portion of respondents from this ward tend to transit outside in search of better job opportunities. This trend suggests a potential lack of good jobs within the study area. Moreover, there is need for policies that can increase labour market participation including education and training, upskilling, job creation, income support and access to labour market information.

Insights from the study area indicate a diverse range of job losses among respondents. The findings reveal that job cuts occurred across multiple sectors with 58.54% o in the private sector, 21.95% in self-owned businesses, 12.20% in contractual positions and 7.31% in part-time jobs. This highlights the comparatively higher job security of formal positions compared to informal ones during the pandemic. Workers faced numerous challenges due to business closures, disruptions in supply chains and diminished consumer demand. These difficulties significantly impacted the job market in sectors such as tourism, retail and manufacturing with repercussions for women, young workers and low-income employees.

Type of job	Gender	Panjtirthi	Pacca Danga	Rehari Colony	Shastri Nagar	Tallab Tillo	Total
	Male	2 (8.32)	3 (10.34)	-	-	1 (11.11)	6 (8.22)
Teaching (Regular)	Female	1 (10)	5 (29.41)	1 (20)	1 (25)	1 (20.00)	9 (21.95)
	Total	3 (8.83)	8 (17.39)	1 (12.5)	1 (8.33)	2 (14.28)	15 (13.16)
-	Male	1 (4.17)	2 (6.89)	-	1 (12.50)	-	4 (5.48)
Banking (Regular)	Female	1 (10.00)	1 (5.88)	1 (20.00)	-	1 (20.00)	4 (9.76)
	Total	2 (5.88)	3 (6.52)	1 (12.5)	1 (8.33)	1 (7.14)	8 (7.02)
-	Male	1 (4.17)	1 (3.45)	_	-	-	2 (2.74)
Managers (Regular)	Female	-	-	-	-	1 (20.00)	1 (2.44)
	Total	1 (2.95)	1 (2.17)	-	-	1 (7.15)	3 (2.63)
-	Male	1 (4.17)	2 (6.90)	-	-	-	3 (4.11)
Defence/Army/Police (Regular)	Female	-	-	-	-	-	-
	Total	1 (2.94)	2 (4.34)	-	-	-	3 (2.63)
-	Male	1 (4.17)	_	_	-	-	1 (1.37)
Administrative services (Regular)	Female	-	1 (5.88)	-	-	-	1 (2.44)
	Total	1 (2.94)	1 (2.18)	-	-	-	2 (1.75)
-	Male	8 (33.33)	14 (48.28)	2 (66.67)	5 (62.50)	2 (22.22)	31 (42.47)
Private job (Casual)	Female	7 (70)	10 (58.83)	3 (60)	1 (25)	2 (40.00)	23 (56.09)
	Total	15 (44.11)	24 (52.18)	5 (62.5)	6 (50)	4 (28.57)	54 (47.37)
-	Male	10 (41.67)	7 (24.14)	1 (33.33)	2 (25.00)	6 (66.67)	26 (35.61)
Business (self-employed)	Female	1 (10)	-	-	2 (50)	-	3 (7.32)
	Total	11 (32.35)	7 (15.22)	1 (12.5)	4 (33.34)	6 (42.86)	29 (25.44)
-	Male	24 (70.58)	29 (63.05)	3 (37.5)	8 (66.66)	9 (64.28)	73 (64.04)
Total	Female	10 (29.42)	17 (36.95)	5 (62.5)	4 (33.34)	5 (35.72)	41 (35.96)
	Total	34 (29.82)	46 (40.35)	8 (7.01)	12 (10.52)	14 (12.28)	114 (100)

Table 3. Job participation of respondents after completing general education

Note: Figures in parentheses represent the percentages of respondents of individual wards in column total and all the wards in rows total Respondents are engaged particularly in these jobs Source: Author's own data collection, 2021

#### 8.2.2 Job participation after completing vocational education

Vocational education, or career and technical education (CTE), provides practical skills and knowledge directly relevant to specific trades or professions. Its focus is on preparing individuals for the workforce through hands-on training, apprenticeships or internships in various fields such as healthcare, technology and construction (Haviland & Robbins, 2021). The goal is to equip students with practical expertise, enhancing their employability in specific industries. The primary objective of vocational education is to prepare individuals for entry into the workforce or to enhance their skills in a particular career field. Vocational education covers a diverse range of fields, including healthcare, technology, automotive, construction and other industries, offering a pathway for individuals to develop practical skills and competencies relevant to specific job roles. Vocational education and training also play a vital role in fostering economic growth and social inclusion, as they equip individuals with the essential skills and competencies required for a successful transition into the labour market (Berk, 2022). This, in turn, enhances their employment

prospects and mitigates the risks of unemployment and inactivity (Bravo & Herce, 2022).

Table 4 indicates the diverse employment prospects that individuals attain after completing their vocational education and has an important role in preparing them with the necessary skills and competencies for various job opportunities. The present study indicates that 24.56% of respondents are engaged in various private sector jobs, 16.67% have secured positions in multinational corporations (MNCs),14.02% in other skilled jobs and medical professions, 10.53% are self-employed businesses and 10.52% in legal sector respectively and 9.65% have found employment in the engineering field. A noteworthy observation is that majority of males, specifically 21.05%, have chosen private jobs.

Type of job	Gender	Panjtirthi	Pacca Danga	Rehari Colony	Shastri Nagar	Tallab Tillo	Total
	Male	1 (6.25)	3 (9.68)	1 (20)	2 (18.18)	2 (15.39)	9 (11.85)
Engineering (Regular)	Female	1 (10)	-	-	1 (14.29)	-	2 (5.27)
	Total	2 (7.69)	3 (6.38)	1 (12.5)	3 (16.66)	2 (13.33)	11 (9.65)
-	Male	3 (18.75)	2 (6.45)	1 (20)	2 (18.18)	2 (15.39)	10 (13.16)
Medical (Regular)	Female	1 (10)	2 (12.5)	1 (33.33)	2 (28.57)	-	6 (15.78)
	Total	4 (15.38)	4 (8.52)	2 (25)	4 (22.22)	2 (13.33)	16 (14.02)
-	Male	2 (12.5)	4 (12.90)	_	1 (9.09)	2 (15.39)	9 (11.85)
Law (Regular)	Female	1 (10)	2 (12.5)	-	-	-	3 (7.89)
	Total	3 (11.53)	6 (12.76)	-	1 (5.56)	2 (13.33)	12 (10.52)
-	Male	3 (18.75)	4 (12.90)	-	1 (9.09)	3 (23.06)	11 (14.47)
MNCs (Regular)	Female	2 (20)	3 (18.75)	1 (33.33)	2 (28.57)	-	8 (21.06)
	Total	5 (19.24)	7 (14.89)	1 (12.5)	3 (16.67)	3 (20)	19 (16.67)
-	Male	4 (25)	5 (16.13)	2 (40)	3 (27.28)	2 (15.39)	16 (21.05)
Private sector (Casual)	Female	3 (30)	5 (31.25)	1 (33.34)	2 (28.57)	1 (50)	12 (31.58)
	Total	7 (26.93)	10 (21.28)	3 (37.5)	5 (27.77)	3 (20)	28 (24.56)
-	Male	2 (12.5)	6 (19.35)	-	2 (18.18)	1 (7.69)	11 (14.47)
Other skilled jobs (Self-employed)	Female	2 (20)	3 (18.75)	-	-	-	5 (13.16)
	Total	4 (15.38)	9 (22.59)	-	2 (11.12)	1 (6.66)	16 (14.02)
-	Male	1 (6.25)	7 (22.58)	1 (20)	-	1 (7.69)	10 (13.15)
Self-employed business	Female	-	1 (6.25)	-	-	1 (50)	2 (5.26)
	Total	1 (3.85)	8 (17.03)	1 (12.5)	-	2 (13.33)	12 (10.53)
-	Male	16 (61.54)	31 (65.95)	5 (62.5)	11 (61.12)	13 (86.66)	76 (66.67)
Total	Female	10 (38.46)	16 (34.05)	3 (37.5)	7 (38.88)	2 (13.34)	38 (33.34)
	Total	26 (22.80)	47 (41.22)	8 (7.01)	18 (15.78)	15 (13.15)	114 (100)

Table 4. Job participation of respondents after completing vocational education

Note: Figures in parentheses represent the percentages of respondents of individual wards in column total and all the wards in rows total Respondents are engaged particularly in these jobs

Source: Author's own data collection, 2021

As per wards are concerned, Pacca Danga Ward, respondents actively engage in various vocational jobs. However, a significant majority prefer transition outside the ward in pursuit of better vocational education and higher-quality jobs. In contrast, other wards lag behind in providing such quality job opportunities to the respondents. This choice is often influenced by factors such as financial considerations, societal and cultural norms, structural barriers and the availability of job opportunities. These factors significantly impact the decision-making process between self-

employment and traditional employment. The important policy implications for the promotion of vocational job creation and the recognition of vocational education as a driver of economic growth. To reduce job turnover among respondents, governments need to foster collaboration between industries and vocational schools, facilitating lifelong learning opportunities to continuously develop skills and competencies in the study area.

#### 8.2.3 To analyse the relationship between labour market participation and insufficient job opportunities

The hypothesis posited in this study asserts an inverse correlation between the insufficiency of job opportunities in the labour market and the level of labour market participation. To examine this hypothesis, correlation analysis is employed to elucidate the connection between the independent variable-representing the shortage of job opportunitiesand the dependent variable, which signifies labour market participation. Quantitative measures are utilized to assess both the levels of labour market participation and the inadequacy of job opportunities. The correlation between these variables is analyzed using statistical methods including the Pearson correlation coefficient, to reveal patterns or relationships.

The relationship between labour market participation and insufficient job opportunities is intricate and interdependent. In situations where there is a dearth of job opportunities relative to the size of the workforce, individuals may encounter challenges in securing employment, leading to a reduction in overall labour market participation. This scenario can contribute to heightened competition for the limited job openings, potentially resulting in increased rates of unemployment and underemployment. An in-depth analysis of this relationship is considered to find out lack of job opportunities influences respondents' decisions to participate in the labour market.

Туре о	f education		Labour market participation	Insufficient job opportunities
		Pearson correlation	1	0.216*
	Labour market participation	Sig. (2-tailed)	-	0.021
General		Ν	114	114
General		Pearson correlation	0.216*	1
	Insufficient job opportunities	Sig. (2-tailed)	0.021	-
		Ν	114	114
		Pearson correlation	1	0.229*
	Labour market participation	Sig. (2-tailed)	-	0.014
V1		Ν	114	114
Vocational		Pearson correlation	0.229*	1
	Insufficient job opportunities	Sig. (2-tailed)	0.014	-
		Ν	114	114

Table 5. Correlation of labour market participation and insufficient job opportunities

Source: Author's own calculations

Table 5 displays data on the correlation between labour market participation and insufficient job opportunities in both general and vocational education contexts. In general education, the Pearson correlation coefficient is 0.216 with a significance value of 0.021, indicating a weak positive correlation. This suggests a statistically significant but weak relationship between labour market participation and insufficient job opportunities. In vocational education, the Pearson correlation is 0.229 with a significance value of 0.014, also denoting a weak positive correlation. The significance level being less than 0.05 suggests a statistically significant relationship. In summary, there is a weak yet statistically significant positive association between labour market participation and insufficient job opportunities in both general

and vocational education contexts.

#### 8.2.4 To access the education and working status of respondents

There is a positive relationship between education and employment and is influenced by factors such as skills, education and earnings inequality. These factors are critical in understanding the evolving demands of the labour market and the impact of technological changes on earnings inequality (Card & DiNardo, 2002). The changing dynamics of the labour market, are influenced by technological advancements that play an important role in skill development and consequently, impact earnings, job stability and employment outcomes (Schmid Peter & Winter-Ebmer, 2021).

Tharacteristics	Gender	Panjtirthi	Pacca Danga	Rehari Colony	Shastri Nagar	Tallab Tillo	Total
	Male	5 (8.93)	2 (2.59)	1 (9.09)	3 (12)	2 (6.90)	13 (8.44)
ISNW (NEET)	Female	2 (5.40)	3 (5.17)	1 (7.70)	1 (5.26)	5 (33.33)	12 (8.45)
	Total	7 (7.53)	5 (3.70)	2 (8.33)	4 (9.09)	7 (15.90)	25 (7.35)
-	Male	9 (16.07)	15 (19.49)	2 (18.18)	3 (12)	4 (13.80)	33 (16.68)
SANW (but ooking for job)	Female	10 (27.02)	17 (29.32)	3 (23.07)	2 (10.53)	2 (13.34)	34 (23.96)
	Total	19 (20.43)	32 (23.71)	5 (20.84)	5 (11.36)	6 (13.64)	67 (19.70)
-	Male	2 (3.57)	-	-	-	1 (3.44)	3 (1.53)
SO (FE)	Female	5 (13.52)	5 (8.63)	1 (7.70)	5 (26.31)	1 (6.67)	17 (11.98)
	Total	7 (7.54)	5 (3.71)	1 (4.16)	5 (11.36))	2 (4.55)	20 (5.89)
-	Male	8 (14.28)	13 (16.89)	2 (18.18)	7 (28)	8 (27.59)	38 (19.19)
SAW	Female	7 (18.92)	14 (24.13)	5 (38.46)	6 (31.59)	4 (26.67)	36 (25.35)
	Total	15 (16.12)	27 (20)	7 (29.16)	13 (29.55)	12 (27.27)	74 (21.77)
-	Male	32 (57.15)	47 (61.03)	6 (54.55)	12 (48)	14 (48.27)	111 (56.06)
WO	Female	13 (35.14)	19 (32.75)	3 (23.07)	5 (26.31)	3 (20)	43 (30.29)
	Total	45 (48.38)	66 (48.88)	9 (37.50)	17 (38.64)	17 (38.64)	154 (45.29)
-	Male	56 (60.22)	77 (57.04)	11 (45.84)	25 (56.82)	29 (65.91 )	198 (58.23)
Total	Female	37 (39.78)	58 (42.96)	13 (54.16)	19 (43.18)	15 (34.09)	142 (41.77)
	Total	93 (27.36)	135 (39.70)	24 (7.06)	44 (12.94)	44 (12.94)	340 (100)

Table 6. Education and working status
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Note: Figures in parentheses represent the percentages of respondents of individual wards in column total and all the wards in rows total NSNW-Neither study nor work (NEET), Study and work (SAW), Study and No work (SANW) but looking for a job, Study Only (SO) Further education (FE), work only (WO), Neither in education, employment, or training (NEET) Source: Author's own data collection, 2021

Table 6 provides insight into the education and employment status of the respondents. According to the International Labour Organization (ILO), "NSNW" refers to a situation where an individual is not currently involved in any formal education or employment, NEETs are individuals not currently participating in any formal education, employment or vocational training. "SAW" denotes individuals who are simultaneously pursuing education (such as attending school or university) while working a job. "SANW" refers to those who are currently enrolled in an educational program but are not currently employed, and actively seeking employment opportunities. "SO" designates

individuals who are solely focused on their education and not engaged in any formal employment or job-seeking activities. WO denotes that an individual is involved in paid work or labour, such as having a job and earning income, without simultaneously being enrolled in formal educational programs.

It has been found that the working status of respondents is as 45.29% work only, 21.77% study and work, 19.70% study and do not work but (looking for a job) however, they are actively seeking job opportunities. The majority of this demography holds a higher level of education, primarily consisting of graduates and they are mostly waiting to secure jobs for 1-2 years or 2-3 years, 7.35% neither study nor work (NEET) and 5.89% study only (engaged in further education). 32.94% of respondents did not possess entry into the labour market whereas females in the sample can be attributed to various factors such as discrimination in the labour market, family responsibilities, gender stereotypes, limited economic opportunities and a lack of job prospects. Many females choose to engage in further education to improve their chances of securing meaningful employment.

As per the wards are concerned, Pacca Ward stands out with the highest number of respondents actively pursuing education and employment, showing keen interest in securing job opportunities. Paradoxically, it also records a notable count of unemployed respondents, possibly indicating intense competition. In contrast, other wards have fewer respondents, reflecting a diminished focus on education and employment. To address these disparities, there is a clear need for policies aimed at promoting gender equality in the workplace. These policies could include measures to support financial aspects of education, mentorship programs, access to vocational training and initiatives for job creation to empower females and make them financially self-sufficient.

#### 8.2.5 To analyse the transition pattern of labour market participation of respondents

To examine the transition pattern of labour market participation among respondents, an analysis will be conducted to understand how respondents move through different employment statuses over a specified period. This helps in tracking changes in respondents' participation, such as transitions from unemployment to employment, shifts in job types or alterations in working hours. By assessing these transition patterns, the study aims to identify trends and factors influencing changes in labour market participation. This analysis provides valuable insights into the dynamics of individuals career paths and contributes to a comprehensive understanding of the evolving nature of labour market participation among the respondents.

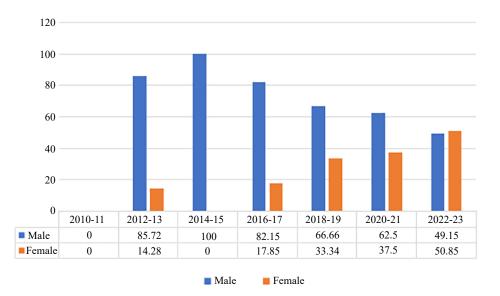


Figure 2. Transition pattern of respondents in labour market participation

Figure 2 shows the labour force participation of the surveyed respondents over time and the factors that influence

their ability to actively engage in the job market including education levels, skill sets, qualifications, employment rate, wages and job opportunities (Agrawal & Agrawal, 2017). This study provides an annual breakdown of the labour market participation status of respondents and reveals that 65.35% are male and 34.64% are female. The findings indicate that in 2010-11, respondents did not participate in the labour force, as individuals who had recently completed their education did not engage in the labour market. Male respondents showed the highest participation in the year 2014-15, while female participation rate gradually increased over the years. In 2022-23, female participation slightly surpassed that of males. There is decrease in economic activity during the pandemic, resulting in fewer job opportunities and diminished employment enthusiasm, especially among respondents. To address this issue, there should be focus on effective policies aimed at fostering economic growth and development. This can be achieved through initiatives like enhancing education and training programs to equip individuals with the necessary skills and knowledge to enter the labour market successfully.

## 9. Challenges and policy implications

Entering the labour market remains challenging process for many respondents in the study area. The specific challenges faced by respondents vary depending on factors such as their location, education, skills, age, available job opportunities and personal circumstances. Here are some challenges faced by them while entering the labour market.

The challenges outlined highlight various barriers that respondents face when entering the labour market. One key challenge is the lack of relevant skills and education. To analyse this aspect more comprehensively a quantitative survey or study would be required to gather specific data on the educational background and skills of the respondents.

1. Impact on employability: Respondents lacking the required skills and education find it difficult to compete in the job market. Employers often seek candidates with specific qualifications and competencies and a gap in these areas has limit job opportunities.

2. Skill development opportunities: Recognizing the skill gap is the first step in addressing the issue. Vocational training programs, educational initiatives and skill development courses can be valuable in bridging the gap and enhancing the employability of respondents.

3. Career advancement: Even for those who secure entry-level positions, the lack of necessary skills hinder the career advancement. Continuous learning and professional development become important for respondents to adapt to evolving job requirements.

4. Economic implications: From a broader perspective, a workforce with inadequate skills impacts economic productivity. It could lead to mismatches between the skills available in the labour market and those demanded by employers, potentially hindering overall economic growth.

5. Competition: The job market is highly competitive for numerous applicants applying for a limited number of jobs. This increases competition and makes it difficult for many respondents especially in industries with high demand.

6. Lack of networking opportunities: Limited social and professional networks hinder individuals from accessing information about job opportunities and career advancement.

7. Work-life balance: Remote work blurs the lines between professional and personal life, making it challenging for employees to maintain a healthy work-life balance. Policies need to address this by establishing clear boundaries and expectations.

Addressing these challenges requires a combination of government policies, employer initiatives and individual efforts. Employment and training programs, anti-discrimination laws, improved access to education and vocational training and efforts to promote diversity and inclusion can help in reducing these barriers to labour market entry.

There is a need for suitable policy implications for labour market participation and addressing challenges faced by respondents in the study area. These are policy recommendations based on the study:

1. Promote Vocational Education and Training (VET) and skill development programs: Promote vocational training institutes and various skill development programs and encourage employers to provide diversity and inclusion training for an inclusive working environment.

2. Education and training programs: Develop vocational training programs, apprenticeships and affordable higher education opportunities and establish funds to support respondents in acquiring the necessary skills for available job

opportunities.

3. Support for job seekers: Provide resources and support for job seekers, including job search workshops and career counselling and establish mentorship programs to guide respondents through the job search process.

4. Incentives for employers: Provide incentives such as grants to employers who hire respondents facing labour market entry challenges. Particularly focus on incentives for hiring individuals with disabilities or other barriers.

5. Public awareness and outreach: Launch public awareness campaigns to inform respondents about available resources and programs for employment support

6. Flexible work arrangement: Establishing clear guidelines and expectations regarding working hours, breaks and the right to disconnect is vital to ensure that employees can effectively manage both their professional and personal lives.

These new forms of labour market organization have become prevalent due to advancements in technology, changes in work culture and the recognition of the potential benefits for both employers and employees. However, they also bring about challenges, as mentioned above and necessitate thoughtful policies and practices to ensure a smooth and effective transition to these alternative work arrangements.

These policy implications aim to create a more inclusive, accessible and supportive labour market by reducing barriers and helping respondents to enter the labour market.

## **10.** Conclusion

In conclusion, job opportunities and labour market participation are integral components of economic development and individual well-being. The ability to access suitable employment not only drives economic growth but also fosters personal growth, social integration and overall prosperity within a nation. Job opportunities serve as the backbone of economic progress influencing income, consumer spending and the overall economic well-being of a society.

While meaningful employment positively impacts individuals by providing financial stability and avenues for personal and professional development. There are numerous challenges that respondents face in entering the labour market. These challenges include skills gaps, competition, discrimination and barriers related to education, transportation and personal circumstances. Addressing these challenges is important for creating more equitable and inclusive job market.

Governments play a vital role in shaping labour market participation through the implementation of policies and initiatives that promote equal access to job opportunities, remove discriminatory barriers and support skill development and training. To effectively address the complex challenges in job opportunities and labour market participation collaboration between governments, employers, educational institutions and community organizations is essential. These collaborative efforts aim to create a more inclusive and accommodating environment for all job seekers.

Ultimately, policies and initiatives aimed at enhancing job opportunities and labour market participation must be adaptive and responsive to the changing economic conditions and technological advancements. By prioritizing these factors, societies can work towards fostering a robust economy, reducing poverty, promoting social cohesion and ensuring the well-being and prosperity of their citizens.

# Limitations

This study focuses on a restricted set of variables derived from empirical literature, specifically examining the duration taken by individuals who graduated in the year 2010 to undergo transitions over a span of 10-12 years. The scope of the research is limited to youths as the exclusive participants in the study.

# **Future research directions**

The study requires detailed temporal analysis to uncover evolving trends over various time periods. Exploring specific sectors within the labour market would provide a deeper understanding and identify areas with high job growth

and challenges in particular industries.

# **Conflict of interest**

The author declares no competing financial interest.

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