

## **Labour Market Dynamics in Odisha: Trends in Participation, Employment Type, and Earnings (2017-18 to 2023-24)**

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### **Abstract**

This study analyzes employment trends in Odisha using data from the Periodic Labour Force Survey (PLFS) covering 2017–18 to 2023–24. It examines changes in the Labour Force Participation Rate, Worker Population Ratio, Unemployment Rates, Employment Types, and Earnings across rural and urban regions. The findings reveal a substantial rise in Female Labour Force Participation Rate, particularly in rural areas, alongside a gradual shift from casual labour to self-employment among women. Male employment patterns, by contrast, remained relatively stable. Rural female workers emerged as a key driver of Odisha's overall gains in WPR and LFPR. Although the segment of women in self-employment fluctuated, there was a notable increase in their participation as helpers in household enterprises. Regular wage employment expanded for males but declined for females, while casual labour fell for both genders in rural areas. In Town areas, women's self-employment initially increased but showed a marginal decline in recent years. The study contributes to understanding gendered employment dynamics and offers evidence

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for designing inclusive, region-specific policy interventions to improve job quality and strengthen economic resilience.

**Keywords:** Employment type, Unemployment rate, Labour Force Participation rate, Worker Population Ratio

## 1. Introduction

India is currently one of the rapidly expanding economies in the world, ranked as the fifth-largest according to the International Monetary Fund (IMF, 2024). Provisional estimates suggest that the country achieved a growth rate of 8.2 percent in 2023–24, supported by robust sectoral performance across states and Union Territories. Odisha has shown a strong recovery from the COVID-19-induced downturn and has demonstrated notable sectoral growth, as highlighted by (Odisha Economic Survey, 2023–24).<sup>2</sup> In 2022–23, Maharashtra's Gross State Domestic Product (GSDP) was ₹36.46 lakh crore, Odisha's was ₹7.53 lakh crore, and Jharkhand's was ₹3.94 lakh crore, placing them first, thirteenth, and seventeenth among all Indian states. In 2023–24, Odisha's sectoral contribution to Gross State Value Added (GSVA) comprised 21 percent from agriculture and allied sectors, 36 percent from services, and 43 percent from industry. The state's GDP growth rate of 8.5 percent slightly outpaced the national average, highlighting Odisha's above-average economic performance during the period 2018–19 to 2022–23 (Odisha Economic Survey, 2023–24).<sup>3</sup>

Labour force indicators further underscore Odisha's favourable position. The labour force participation rate for individuals aged 15 and above was 61.3 percent in Odisha, higher than the national average of 57.9 percent, according to PLFS 2022–23. The state also reported a lower unemployment rate (3.2 percent) compared to the national figure (3.9 percent). However, disparities remain in income levels: regular wage earners in Odisha

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<sup>2</sup> National Accounts Division, MoSPI, & Government of Maharashtra, 2023, as cited in *Odisha Economic Survey 2023-24*

<sup>3</sup> Directorate of Economics and Statistics & MOSPI, 2023, as cited in *Odisha Economic Survey 2023-24*

earned 5.3 percent less than the national average, while earnings gaps for self-employed and casual labourers were 24.1 percent and 13.3 percent, respectively (Odisha Economic Survey, 2023–24).

This study investigates evolving employment trends in Odisha between 2017–18 and 2023–24, with a focus on gender dynamics, sectoral shifts, employment types, and earnings. It examines labour force participation, the distribution of employment types—including self-employment, regular wage work, and casual labour—and the corresponding earnings across these categories. The paper is organized into five sections. Section 1 gives an overview of Odisha’s socio-economic profile. Section 2 reviews the existing literature. Section 3 explains the research methodology. Section 4 presents the results and analysis, and Section 5 concludes with key findings and policy suggestions.

## **2. Literature Review**

While many studies have analyzed labour force participation and unemployment trends at the national level, there is relatively limited research that focuses specifically on Odisha. The present study will be an addition to the existing literature focusing on labour force participation and unemployment, earning of different type of workers across different types of employment.

Sahoo (2019) highlights a faster decline in the primary sector’s income share relative to its proportion of employment, while the Services Economy has shown rapid growth in both income and its contribution to the overall economy. He emphasizes the complex and uneven nature of Odisha’s economic transformation, underscoring the salience of targeted policy interventions to reduce inequalities in employment and sectoral growth. Mohanty & Padhi (1995) find that the tribal population in Odisha exhibits higher workforce participation than the general population, with similar unemployment rates and moderate underemployment. However, tribal communities face limited rural non-agricultural job opportunities, pointing to the need for productivity-linked employment, improved access to resources for marginalized cultivators, and targeted support for rural non-farm activities. Himanshu (2011) re-examines employment and unemployment trends since the

1970s based on successive National Sample Surveys. Findings suggest that transformation in employment trends and labour structure has been sluggish. The 66th round of the NSS (2009–10) shows lethargic employment growth, an increase in casual work, a decline in self-employment since 2004–05, and a significant drop in female labour force participation. Samantaraya et al. (2014) identify large differences in Odisha's economic performance between the periods 1991–2004 and 2004–2012. During the first period, agricultural distress led to slow poverty reduction. In the post-2004 period, the state experienced vigorous agricultural growth, declining poverty, and a shift in labour mobility within the agricultural sector. Advancements in irrigation, road infrastructure, and the presence of economic activities such as mining and industry supported higher wages and better living conditions. Overall, the literature highlights persistent structural challenges in Odisha's employment landscape alongside emerging opportunities from sectoral shifts.

Collectively, these studies underscore the need for inclusive growth strategies that balance agricultural productivity with non-farm job creation. Policies addressing marginalized groups and regional disparities are essential for achieving sustainable economic transformation.

### **3. Data sources and Methodology**

The data for this study are drawn from the Periodic Labour Force Survey (PLFS) for Odisha, covering the period 2017–18 to 2023–24. Descriptive statistics are used to inspect trends in (1) the Labour Force Participation Rate, (2) the Worker Population Ratio, (3) the Unemployment Rate, (4) the distribution of employment types, and (5) workers' earnings. Since PLFS data are only available from 2017–18 onwards, the study is restricted to this period. The analysis relies on descriptive methods, with bar charts, line graphs and tables used to present trends, while the Compound Annual Growth Rate (CAGR) is applied to measure the growth of key variables.

#### 4. Data Analysis and trends

The data on LFPR, WPR, unemployment rate, types of employment, and earnings of the population in Odisha are presented through tables, histograms, and trend lines in the below sections.

##### 4.1. Labour Force Participation Rate

The Labour Force Participation Rate (LFPR) refers to the share of the working-age population (15 years and above) that is either employed or actively looking for work (Ministry of Statistics and Programme Implementation [MoSPI], 2023). Table 1 presents LFPR trends in Odisha from 2017–18 to 2023–24, disaggregated by region (rural and urban) and gender. The male Labour Force Participation Rate exhibited little variation across rural and urban areas during this timeframe, suggesting that men's engagement in the labour market is already at a saturation point, leaving limited scope for further expansion. By comparison, the female LFPR recorded a significant upward trend, particularly in agrarian regions, where it rose from 20 percent in 2017–18 to 52.6 percent in 2023–24. Urban female LFPR also increased, though at a more modest rate, climbing from 16.9 percent to 30.8 percent. Consequently, the overall LFPR (male and female combined) in Odisha rose from 48.3 percent to 64.9 percent, a shift largely driven by the surge in women's participation.

Table 1: LFPR (Percent) usual status (ps+ss) of Odisha, 15 year and above

	Rural			Urban			Rural + Urban		
Year	Male	Female	All Persons	Male	Female	All Persons	Male	Female	All Persons
2017-18	79.4	20	49	74.6	16.9	44.8	78.6	19.5	48.3
2018-19	79.8	25.2	52.1	75	20.3	47	79	24.4	51.2
2019-20	79	34.8	56.4	74.6	23.5	49.2	78.3	33.1	55.3
2020-21	79.5	34.7	56.9	75.2	22.2	49.1	78.9	32.9	55.8
2021-22	79.5	34.7	56.9	75.2	22.2	49.1	78.9	32.9	55.8
2022-23	79.1	47.5	63	73.2	27.8	51.5	78.1	44.7	61.3
2023-24	82.9	52.6	67.1	75	30.8	53.2	81.7	49.4	64.9
CAGR	0.72	17.49	5.38	0.09	10.52	2.91	0.65	16.76	5.05

Source: PLFS (2017-18 to 2023-24). Note: The CAGR is calculated by authors

Several structural and policy-related factors account for these patterns. The historically low female LFPR in India has been associated with increased educational enrolment, the burden of unpaid care responsibilities, increasing household earnings, and the mechanization of agriculture (Mehrotra & Sinha, 2017). In recent years, however, targeted government initiatives — including programs promoting girls' education, skill development, entrepreneurship, and workplace safety (Ministry of Women and Child Development, 2023) — These factors appear to have encouraged greater female participation in the labour force. Moreover, the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) has offered a safety net of paid employment, disproportionately benefiting women in rural areas (Ghosh, 2002). The COVID-19 pandemic and the accompanying wave of reverse migration may also have raised rural female LFPR, as women increasingly took up economic roles to supplement household incomes during the crisis (Chand, 2022).

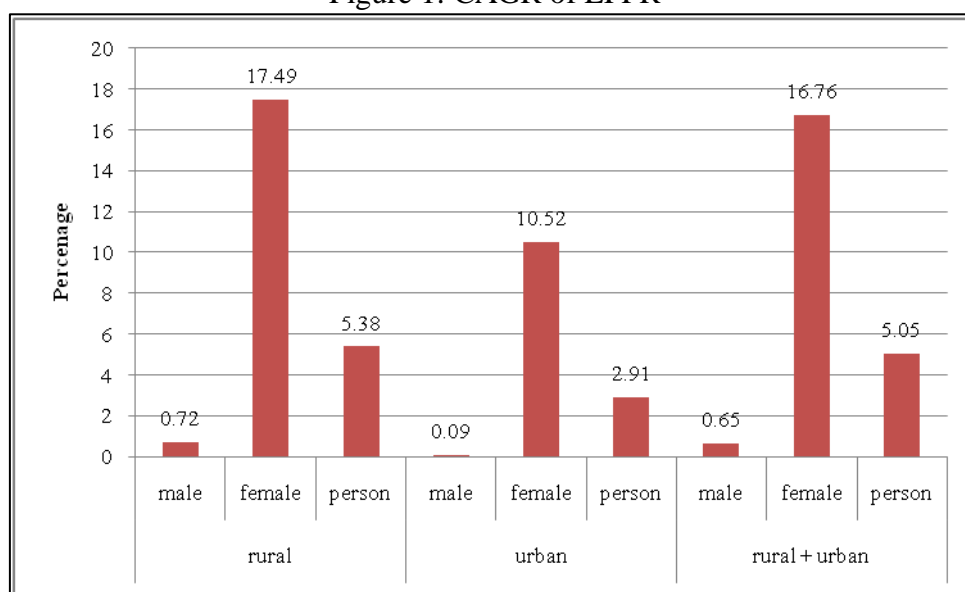
This rising LFPR coincided with a decline in unemployment rates, suggesting that Odisha's labour market has been relatively effective in absorbing the expanding labour force. As shown in Table 3, unemployment rates fell across all categories between 2017–18 and 2023–24, even amid the surge in female participation. For instance, rural female unemployment declined from 5.3 percent to 2 percent while rural female LFPR more than doubled. Likewise, unemployment rates declined for both men and women across rural and urban areas. The simultaneous increase in LFPR (greater participation) and decrease in unemployment (higher absorption) indicates that the labour market expanded its capacity to generate employment, particularly for women.

This pattern suggests that the rise in female LFPR was not merely distress-driven—a scenario typically marked by rising participation alongside stagnant or rising unemployment—but instead reflects a mix of improved opportunities, policy support, and structural change. National programmes such as *BetiBachaoBetiPadhao*, MGNREGA, Skill India Mission, Working Women Hostels, and recent labour law reforms have contributed to higher female participation by creating safer and more inclusive

workplaces. As a result, female labour force participation has increased markedly, especially in rural Odisha (GoI Report, 2023, pp. 31–35).<sup>4</sup>

However, the nature and quality of employment remain critical. While more women are participating and finding jobs, much of this work is concentrated in informal, low-paid, or unpaid activities, particularly as helpers in household enterprises. Thus, although rising LFPR and falling unemployment indicate improved labour market absorption, they also highlight the need for policies that enhance the quality and security of jobs. The CAGR shows a strong rise in labour force participation in Odisha between 2017–18 and 2023–24, especially among women. Rural female participation grew at 17.49 percent yearly, while urban females saw a 10.52 percent increase, narrowing gender gaps. Male participation rose only slightly 0.72 percent annually in rural areas and 0.09 percent in urban areas—reflecting already high male rates. Overall, LFPR grew by about 5 percent annually, driven largely by women entering the workforce.

Figure 1: CAGR of LFPR



Source: PLFS (2017-18 to 2023-24). Note: The CAGR and bar diagram are creation of author

<sup>4</sup>Directorate General of Employment (GoI), 2023, *Female Labour Utilization in India*, Ministry of Labour & Employment

## 4.2. Worker Population Ratio

As it is evident from the table, female WPR grew much faster than male WPR, especially in rural areas, where it rose by 18.18 percent annually compared to just 1.50 percent for rural males. Urban female WPR also increased significantly at 11.08 percent per year, while urban male growth was minimal at 0.41 percent. Overall, the total WPR in Odisha improved by about 5.78 percent annually, indicating rising labour force participation. This shows that women's employment, predominantly in rural Odisha, has grown steadily and substantially during this period. Ghosh (2002) notes that married women in rural areas are more than twice as likely to engage in economic activities as their urban counterparts, which align with the observed trends.

Several factors help explain the rise in rural female WPR. Initiatives such as the Jal Jeevan Mission, which reduced time spent on household chores by improving water access, likely freed up time for women to participate in paid work (Goldar & Aggarwal, 2024).

Table 2: WPR (Percent) usual status (ps+ss) of Odisha, 15 year and above

Year	Rural			Urban			Rural + Urban		
	Male	Female	All Persons	Male	Female	All Persons	Male	Female	All Persons
2017-18	73.6	18.9	45.6	69.1	14.8	41.1	72.9	18.3	44.9
2018-19	74.6	24.2	48.9	67.4	15.8	41	73.4	22.8	47.6
2019-20	73.4	33.6	53	68.9	21.6	45.4	72.7	31.8	51.9
2020-21	74.5	33.6	53.9	68.7	18.4	43.9	73.6	31.4	52.4
2021-22	74.5	33.6	53.9	68.7	18.4	43.9	73.6	31.4	52.4
2022-23	75.5	46.5	60.7	68.8	25.9	48.3	74.4	43.6	58.9
2023-24	80.5	51.5	65.4	70.8	27.8	49.6	78.9	48	62.9
CAGR	1.5	18.18	6.19	0.41	11.08	3.18	1.33	17.44	5.78

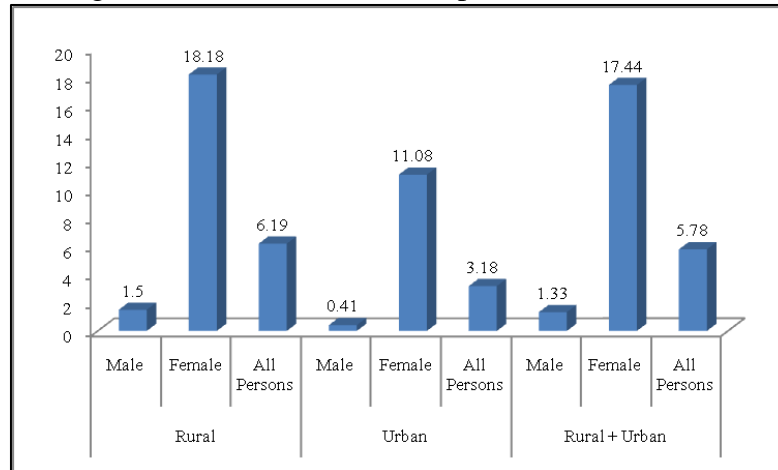
Source: PLFS (2017-18 to 2023-24). Note: CAGR is calculated by authors

Likewise, having better access to mobile phones and the internet has helped women learn about more job opportunities. Structural shifts also contributed: as rural men moved into non-agricultural activities or exited agriculture altogether, more women filled the resulting labour gaps in agriculture and allied sectors. In addition, opportunities for women have expanded in manufacturing and services, with participation among women from wealthier households rising faster than that of poorer women. Importantly, this rise in women's WPR does not appear to be distress-driven, since wage rates have not



declined—an outcome that would normally accompany distress-led participation (Goldar & Aggarwal, 2024).

Figure 2: CAGR of Worker Population Ratio (WPR)



Source: PLFS (2017-18 to 2023-24). Note: The CAGR and bar diagram are creation of author

### 4.3. Unemployment Rates

The observed rise in WPR is complemented by a decline in unemployment rates over the same period (Table 2). From 2017–18 to 2023–24, unemployment went down for both men and women in rural as well as urban areas, with some ups and downs, especially among urban women. In rural areas, male unemployment dropped from 7.3 percent to 2.9 percent, and female unemployment fell from 5.3 percent to 2.0 percent. Urban female unemployment, though initially high and volatile, also fell significantly by 2023-24. This inverse relationship, with rising WPR alongside declining unemployment, suggests that more people are not only entering the labour force but also securing employment, indicating improved labour absorption in Odisha's economy. The fact that WPR increased without a corresponding rise in unemployment indicates that the labour market has been able to generate sufficient jobs to accommodate the growing workforce, predominantly women. However, as highlighted earlier, the quality of these jobs, especially those concentrated in self-employment and helper roles, remains a concern.

The Compound Annual Growth Rate (CAGR) further confirms these improvements, showing a steady decline in unemployment rates in Odisha from 2017–18 to 2023–24.

Rural unemployment fell sharply, with an average annual decline of about 15 percent for females and 14.26 percent for males, reflecting better employment opportunities in rural areas. Urban unemployment also declined, though more modestly, at around 4 percent annually for both males and females. Odisha's unemployment rate decreased by nearly 12.90 percent per year. This signals significant improvement in labour market conditions.

Table 3: Unemployment Rate (%) usual status (ps+ss) of Odisha, 15 year and above

Year	Rural			Urban			Rural + Urban		
	Male	Female	All Persons	Male	Female	All Persons	Male	Female	All Persons
2017-18	7.3	5.3	6.9	7.3	12.7	8.4	7.3	6.3	7.1
2018-19	6.6	4.2	6	10.1	21.9	12.7	7.1	6.6	7
2019-20	7	3.6	6	7.6	8	7.7	7.1	4.1	6.2
2020-21	6.4	3	5.4	8.6	17.2	10.5	6.7	4.4	6
2021-22	6.4	3	5.4	8.6	17.2	10.5	6.7	4.4	6
2022-23	4.5	2	3.6	6	6.8	6.2	4.7	2.4	3.9
2023-24	2.9	2	2.6	5.6	9.7	6.8	3.3	2.7	3.1
CAGR	-14.26	-14.99	-15.01	-4.32	-4.39	-3.46	-12.39	-13.17	-12.9

Source: PLFS (2017-18 to 2023-24). Note: CAGR value is calculated by authors

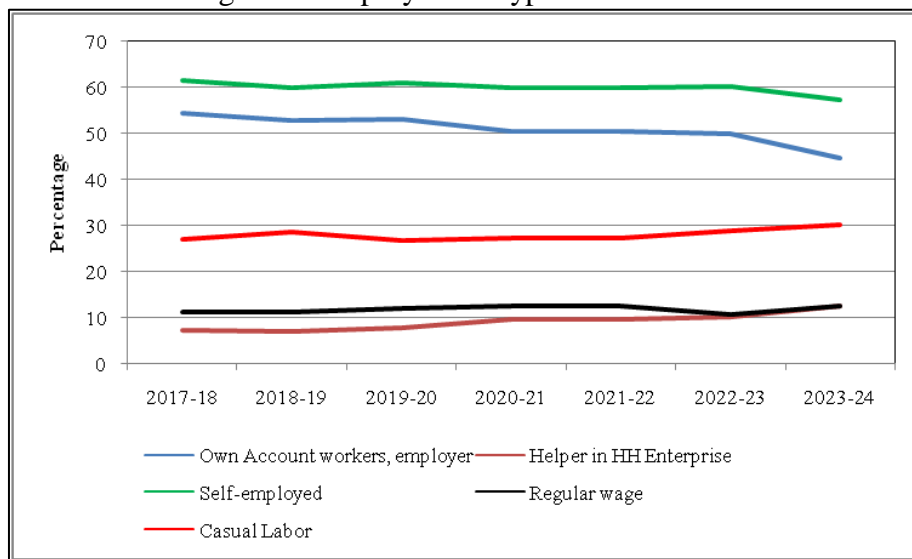
#### 4.4. Types of Employment and their trend Rural Odisha

The rising Labour Force Participation Rate (LFPR), particularly among rural women, between 2017–18 and 2023–24, is reflected in the changing distribution of workers across employment types. While LFPR shows how many working-age people are engaged in or seeking work, employment status data indicate whether they are self-employed, regular wage workers, or casual labourers. For rural males, LFPR remained fairly constant, with modest shifts in employment. The proportion of male own-account workers and firm owners declined slightly (54.5 percent to 44.7 percent), suggesting movement away from agriculture or small businesses. The proportion working as helpers in household enterprises rose moderately, and casual labour increased 27.1 percent to 30.2 percent. Regular wage employment slightly increased from 11.3 percent to 12.5 percent during 2017-18 to 2023-24, showing that stable salaried jobs remained limited.

The CAGR figures from 2017–18 to 2023–24 highlight shifts in rural Odisha. Among rural males, self-employment declined (-3.25 percent), helpers in household enterprises grew strongly (9.78 percent), casual labour fell (-1.17 percent), and regular wage employment grew slightly (1.70 percent), indicating slow formalization. For rural

females, self-employment rose sharply (11.31 percent) and helpers increased (4.09 percent), while casual labour declined (-10.99 percent) and regular wage work also fell (-9.27 percent), pointing to withdrawal from casual work and movement into family-based activities.

Figure 3: Employment Type of Rural Male



Source: PLFS (2017-18 to 2023-24). Note: The trend line diagram is creation of author

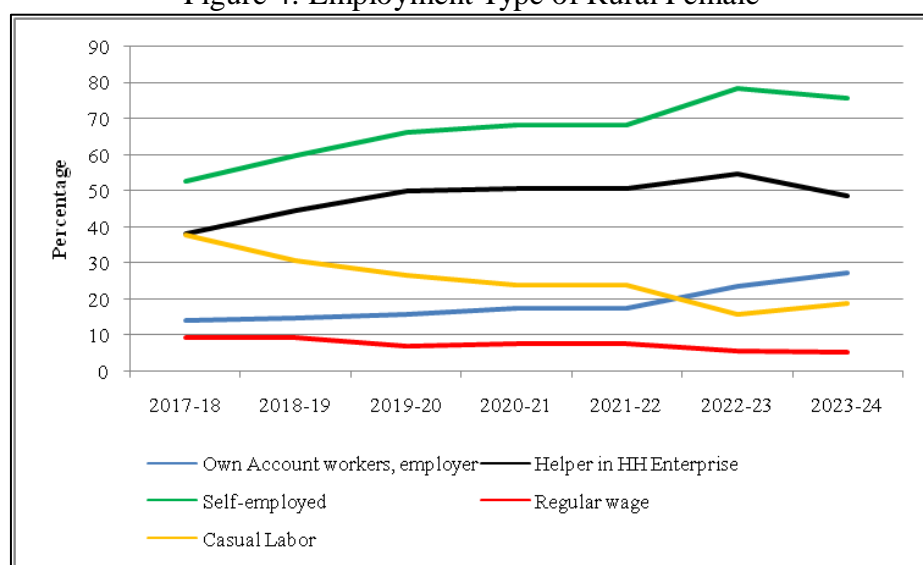
Overall, self-employment declined (-3.31 percent), helpers rose by 12.25 percent, casual labour fell (-2.34 percent), and regular wage work stagnated (-2.27 percent). These trends indicate rising family-based work and a decline in casual labour, with limited progress in formal jobs.

The sharp rise in rural female LFPR from 20 percent in 2017-18 to 52.6 percent in 2023-24, is visible in the shift in employment status. The share of women as helpers in household enterprises rose from 38.2 percent to 48.6 percent, absorbing much of the additional labour. Regular wage employment fell (9.5 percent to 5.3 percent) and casual labour dropped steeply (38 percent to 18.9 percent). This suggests that as more rural women entered the labour force, many engaged in family-based enterprises rather than formal or casual work. The decline in casual labour, particularly among women, suggests a shift away from the least secure and lowest-paid work. However, the rise in helpers in household enterprises, often unpaid or low-paid, raises concerns about employment

quality. Thus, higher LFPR reflects increased participation but also restructuring of employment, with women concentrated in family-based self-employment and fewer in casual or regular wage jobs. For men, steady participation was matched by minor changes, with continued dominance of self-employment and casual work.

The substantial rise in female LFPR and Worker Population Ratio (WPR) between 2017-18 and 2023-24 has drawn policy attention. PLFS 2023-24 data show women's workforce participation increased from 18.9 percent to 51.5 percent, largely in rural areas. While positive at first glance, this rise may partly reflect changes in survey methodology, distress-driven employment, and an expansion of informal work rather than growth in decent jobs (Thakur & Chaudhary, 2025; Afridi, 2025; Deshpande, 2025). Enumerator guidelines in PLFS 2023-24 instructed that household-based activities—such as collection of firewood, kitchen gardening, and poultry—be classified as self-employment rather than domestic duties (Thakur & Chaudhary, 2025; Mohanan & Kar, 2025).

Figure 4: Employment Type of Rural Female

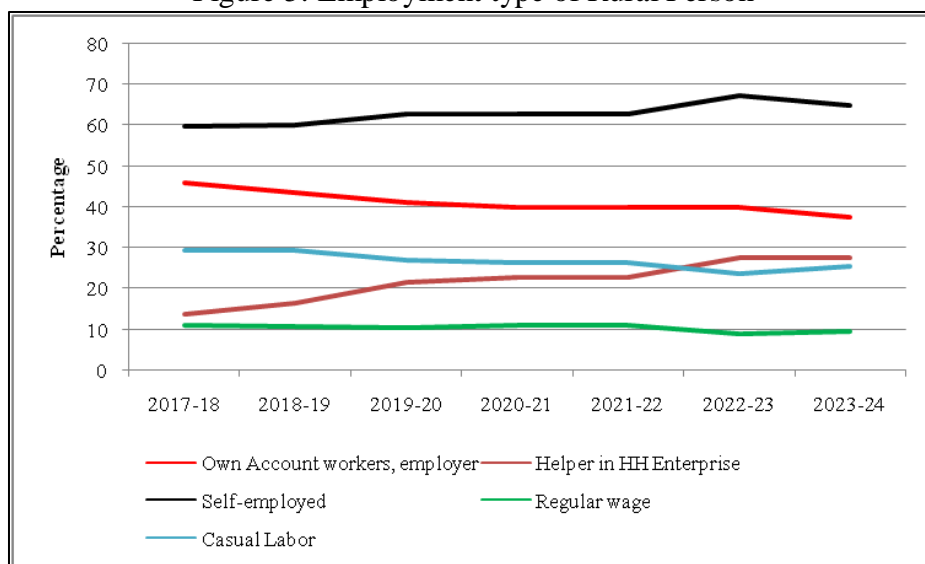


Source: PLFS (2017-18 to 2023-24). Note: The trend line diagram is creation of author.

Economic distress after COVID-19 also contributed, as women turned to self-employment to support household incomes amidst shrinking salaried jobs (Afridi, 2024; Dewan, 2024; ILO, 2024). The increase in self-employment, often unpaid or minimally

paid, appears to reflect necessity-driven participation rather than improved opportunities (Deshpande, 2025; Ghosh, 2025).

Figure 5: Employment type of Rural Person



Source: PLFS (2017-18 to 2023-24). Note: The trend line diagram is creation of author

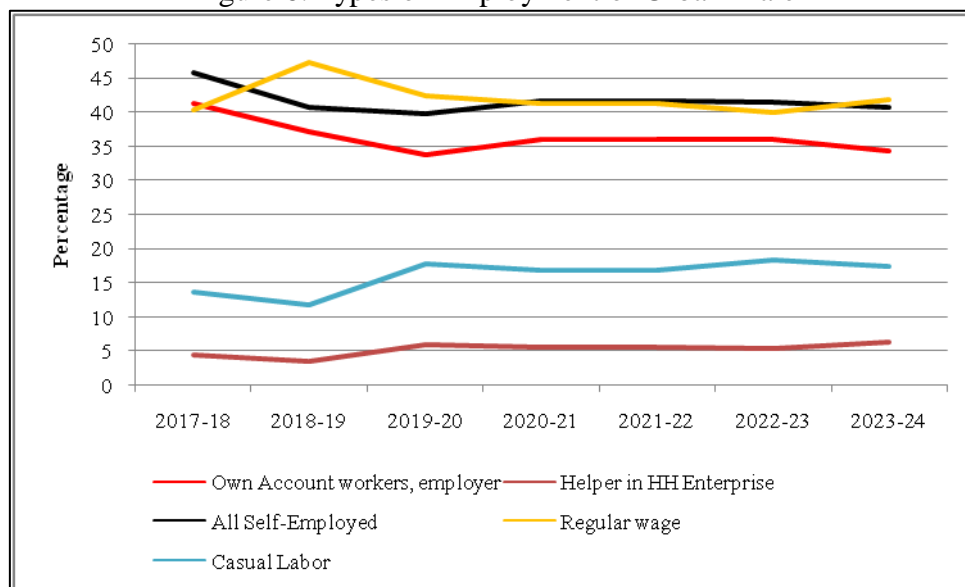
In sum, while rising LFPR indicates greater economic engagement, much of this is concentrated in informal, insecure work. The findings stress the need to expand regular wage opportunities and improve conditions in self-employment to enhance not just the quantity but also the quality of women's work.

#### 4.5. Types of Employment and their trend in Urban Odisha

The trends in urban Odisha's employment structure between 2017–18 and 2023–24, as reflected in Figures 6, 7 and 8, complement the earlier findings on mounting LFPR, WPR, and declining unemployment rate, but they also reveal important differences from rural patterns, particularly regarding women's employment. Earlier, we noted that Odisha experienced a significant rise in LFPR and WPR, especially among women, with rural areas contributing most to this increase. In urban areas too, female LFPR rose from 16.9 percent in 2017-18 to 30.8 percent in 2023-24, but the growth was more modest

compared to rural areas. Unemployment rates in urban areas also declined over this period.

Figure 6: Types of Employment of Urban Male



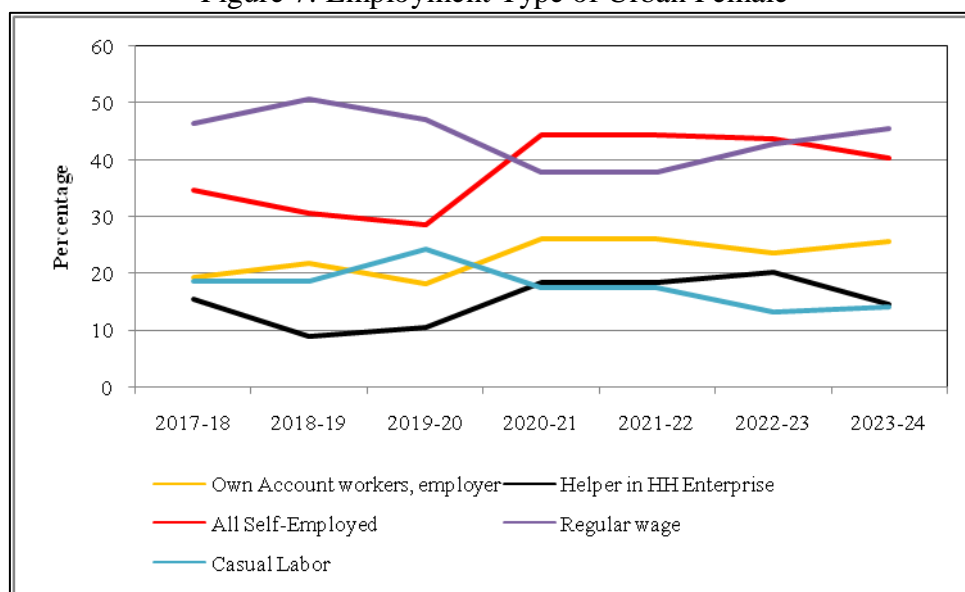
Source: PLFS (2017-18 to 2023-24). Note: The CAGR and bar diagram are creation of author

For urban males, employment patterns shifted toward more precarious forms of work. The proportion of self-employment declined from 45.9 percent to 40.8 percent, whereas regular wage employment remained largely unchanged, rising slightly from 40.5 percent to 41.9 percent. At the same time, casual labour rose sharply from 13.6 percent to 17.3 percent, suggesting greater vulnerability, possibly linked to economic shocks such as COVID-19. Urban women experienced more positive changes. Their share in self-employment rose initially, peaking at 44.5 percent in 2020–21, before settling at 40.4 percent in 2023–24. More notably, regular wage employment decreased overall, reaching 45.5 percent by 2023–24. At the same time, casual labour declined steeply, from 24.3 percent in 2019–20 to 14.1 percent in 2023–24. This shift indicates improved access to relatively stable jobs for women in urban Odisha.

The CAGR values for 2017–18 to 2023–24 (Table 4) confirm these dynamics. Among urban males, self-employment contracted at –3.00 percent, helpers in household enterprises grew moderately at 5.66 percent, casual labour declined slightly at –1.94 percent, and regular wage jobs grew slowly at 0.57 percent. This highlights stagnation in formal opportunities alongside a modest rise in family-based work. For urban females,

self-employment grew by 4.89 percent yearly, helpers declined by 0.88 percent annually, casual labour rose by 2.52 percent each year, and regular wage work fell marginally by 0.36 percent annually. For the urban workforce as a whole, self-employment declined by 2.48 percent yearly, helpers rose by 4.71 percent yearly, casual labour contracted by 1.22 percent yearly, and regular wage jobs grew only by 0.51 percent yearly. These trends reflect persistent informality and limited formalization, though with gendered variations.

Figure 7: Employment Type of Urban Female



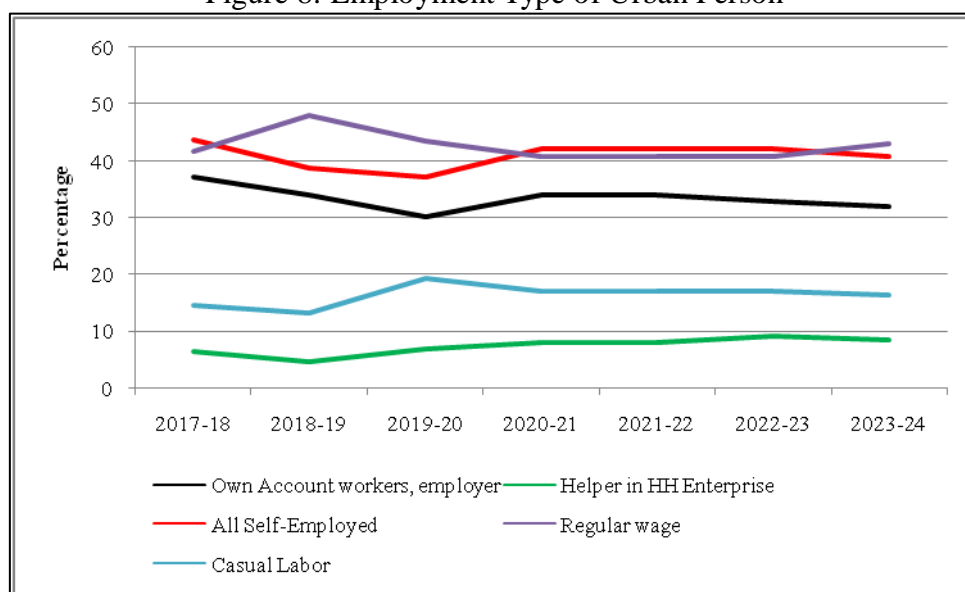
Source: PLFS (2017-18 to 2023-24). Note: The trend line diagram is creation of author

The comparison of urban with rural patterns highlights important contrasts. Rising rural female LFPR was largely absorbed into household enterprises and informal, low-paid work. In urban areas, however, women gained better access to regular wage jobs and moved away from casual labour, reflecting relatively higher job quality. For men, the story was less positive: while rural men remained concentrated in self-employment and casual work, urban men saw declining self-employment and rising casual labour, indicating deteriorating job quality and reduced access to formal jobs.

Largely, Odisha's urban labour market shows both opportunities and challenges. Women have achieved better access to regular wage employment and reduced dependence on casual labour, pointing to improved job quality compared to their rural counterparts. For men, however, a shift toward casual labour raises concerns about vulnerability and

stagnation in formal job creation. Self-employment remains important for both genders but is steadily declining, consistent with the broader structural transformation of Odisha's economy. These findings illustrate that while Odisha's labour market has successfully absorbed rising participation, particularly of women, urban-rural and gender differences persist.

Figure 8: Employment Type of Urban Person



Source: PLFS (2017-18 to 2023-24). Note: The trend line diagram is creation of author

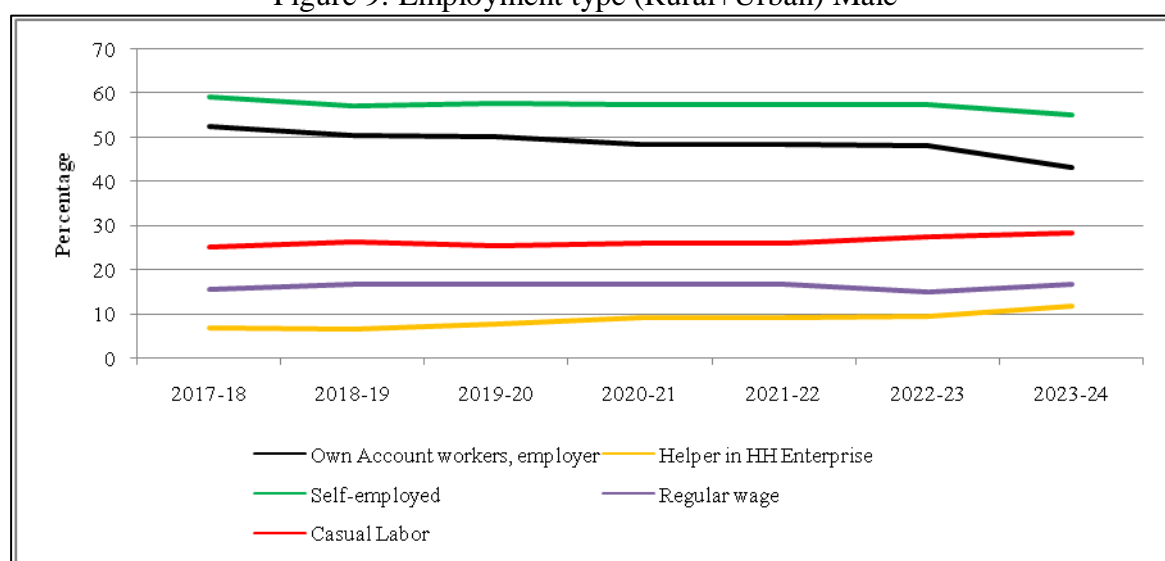
#### 4.6. Types of Employment and their trend in (Rural+ Urban) Odisha

The combined rural and urban data presented in Figures 9, 10 and 11 reveal how Odisha's workforce adapted to rising participation rates and economic disruptions between 2017–18 and 2023-24. As seen earlier, Odisha experienced a sharp increase in female LFPR and WPR during this period, while unemployment rates fell—indicating that the labour market was able to absorb the growing workforce. However, the structure of employment shifted markedly, particularly for women, and these shifts are reflected in the combined rural–urban employment patterns. For males, self-employment remained the dominant form of work, declining slightly from 59.3 percent to 55 percent, while regular wage jobs declined marginally and casual labour rose from 25.1 percent to 28.3 percent during



2017-18 to 2023-24. This suggests that for men, the rising workforce was largely absorbed into informal, low-security casual jobs rather than into more stable regular wage work. Notably, most male self-employed workers continued to work as own-account workers, indicating limited expansion of family-based enterprises or hiring additional help.

Figure 9: Employment type (Rural+Urban) Male



Source: PLFS (2017-18 to 2023-24). Note: The trend line diagram is creation of author

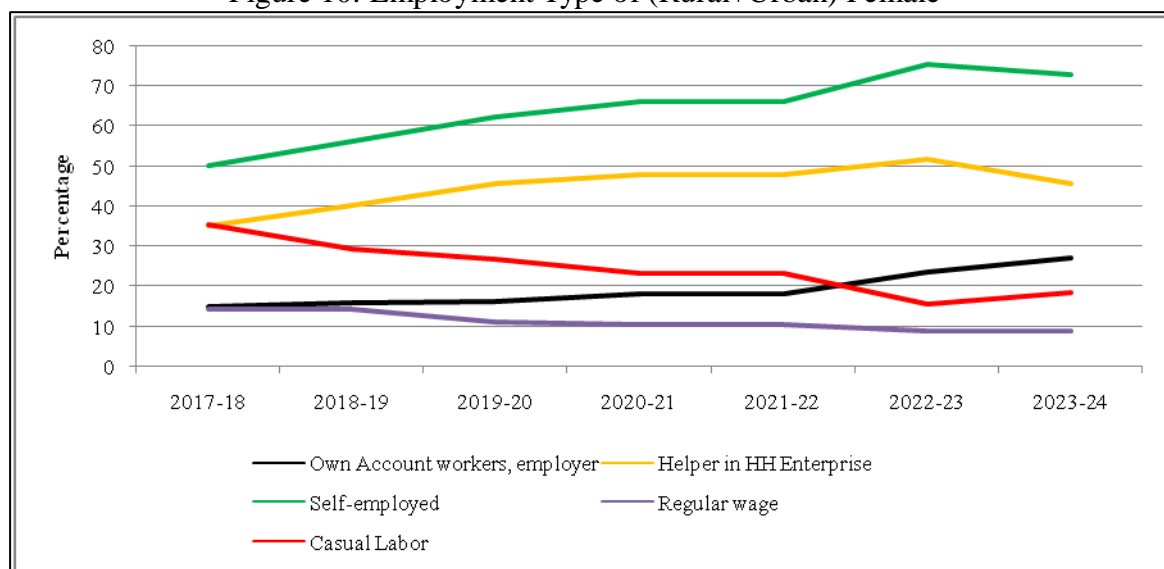
For females, the trends were more striking. The proportion of women in self-employment rose dramatically, from 50.3 percent in 2017–18 to 72.8 percent in 2023-24, with the bulk of this increase occurring in the helper in household enterprises category. Simultaneously, the proportion of women in regular wage and casual employment fell sharply. This reflects both greater participation of women and the limited availability of formal jobs, which pushed many into family-based, informal activities. In total, self-employment for both men and women grew from 57.4 percent to 62 percent, while regular wage and casual jobs decreased, showing the rising role of self-employment in Odisha's labour market.

These structural shifts can be linked to both demographic and economic factors. As noted earlier, policies like *Jal Jeevan Mission*, MGNREGA, and women's empowerment initiatives likely encouraged women's participation—but in the absence of sufficient regular jobs, much of this participation was absorbed through family enterprises or

informal self-employment. Social norms and the flexibility of working at home also played a role in shaping these choices for women.

Economic shocks during this period also influenced these trends, like Demonetization (2016), GST implementation (2017), and especially the COVID-19 pandemic disrupted formal employment opportunities. During the first phase of the pandemic, job losses in urban salaried jobs led to reverse migration to rural areas, increasing rural employment, particularly among women—while urban employment numbers temporarily fell. The pandemic also pushed many people into informal self-employment to survive, as salaried positions declined and family labour became a buffer (Chand, 2022; Goel, 2024).

Figure 10: Employment Type of (Rural+Urban) Female



Source: PLFS (2017-18 to 2023-24). Note: The trend line diagram is creation of author

While the rise in self-employment reflects the resilience of households and their ability to absorb shocks, it also highlights the precarious nature of employment in Odisha. As Joshi & Mitra (2020) argue, shortages of suitable and productive employment have forced many—especially women—into low-productivity, informal self-employment or underemployment. In the PLFS 2017–18, the percentage share of male self-employed, regular wage, and casual labour workers were 59.3 percent, 15.7 percent, and 25.1 percent, respectively. Proportion of self-employed workers without employees and helpers in small household businesses in the total labour force were 52.5 percent and 6.8

percent, respectively. The proportion of self-employed workers decreased from 59.3 percent to 55 percent, while the share of regular wage workers increased from 15.7 percent to 16.7 percent, and the proportion of casual labour enlarged from 25.1 percent to 28.3 percent. Although male workers in urban areas showed a shift from regular salaried work and self-employment to casual work, the change was minimal. The majority of workers, including males, females, and persons from both urban and rural areas, were working as self-employed. Combined rural and urban males were mostly engaged as self-employed workers without employees compared to females, while the majority of females were engaged as helpers in household enterprises compared to males.

In the PLFS 2017–18, the proportion of female Independent workers, regular wage, and casual labour workers in combined rural and urban areas was 50.3 percent, 14.2 percent, and 35.5 percent, respectively. The proportion of Independent workers and helpers in family businesses in the total labour force was 15 percent and 35.3 percent, respectively. A significant portion of females were self-employed in 2017–18, and this percentage increased to 72.8 percent in 2023-24. However, the share of regular wage and casual labour workers decreased in the same timeframe. Female workers in combined areas showed a preference for self-employment over regular salaried work and casual labour. In the PLFS 2017–18, the proportion of persons who were independent workers, in Steady paid employment, and in Contingent labour were 57.4 percent, 15.4 percent, and 27.2 percent, respectively. The share of self-employed workers increased from 57.4 percent to 62 percent, while the share of regular wage workers decreased from 15.4 percent to 13.6 percent, and the proportion of contingent labour dropped from 27.2 percent to 24.4 percent during the given time period. Generally, it can be inferred that individuals in both rural and urban areas of Odisha were inclined to work as independent workers rather than in regular wage and casual labour. Males were mostly engaged as own-account workers compared to females, while a major percentage of females were engaged as helpers in household enterprises compared to males.

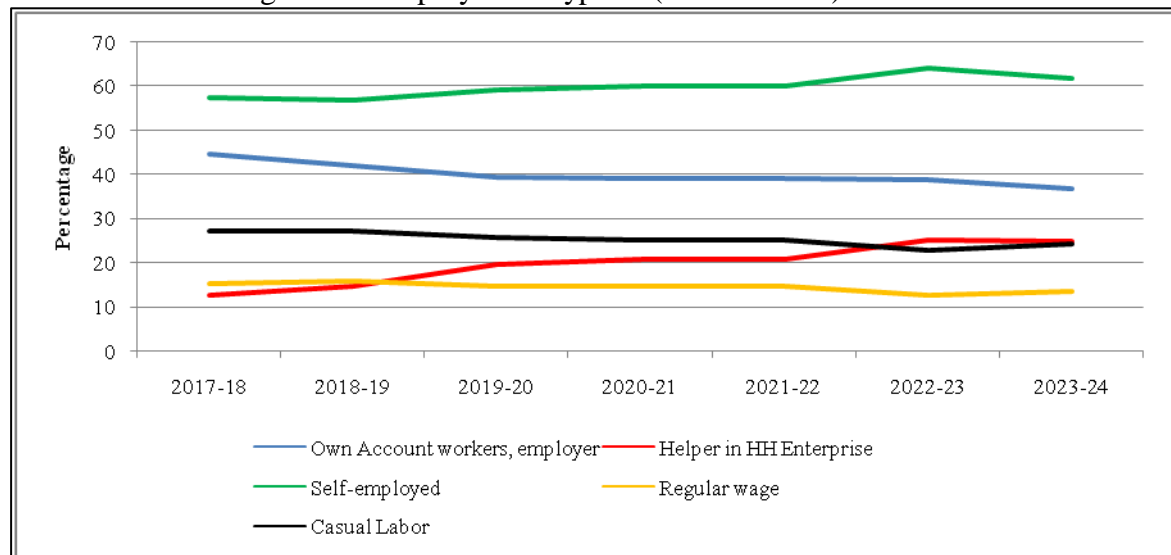
In general, it can be said that in the case of rural and urban combined areas, self-employment witnessed growth among females as helpers in household enterprises, but salaried employment wage and contingent workers dropped. Males were usually working as own-account workers while females were engaged in self-employment over regular and casual work. The CAGR analysis of employment patterns in Odisha (rural and urban

combined) from 2017–18 to 2023–24 shows distinct gendered and structural shifts. For males, the proportion of independent workers declined significantly by 3.20 percent annually, while helpers in household enterprises grew notably at 9.47 percent. Casual labour contracted slightly by 1.25 percent, whereas regular wage work grew modestly at 1.03 percent, suggesting some improvement in formal employment but persistent informality. Among females, self-employment increased sharply by 10.36 percent, and helpers rose by 4.40 percent, reflecting growing participation in family-based and independent work. Casual labour among females rose by 6.36 percent, while regular wage work declined steeply by 7.67 percent, indicating a withdrawal from formal jobs and rising precarity. Overall, for the total workforce, self-employment declined moderately by 3.15 percent, while helpers increased significantly by 12.02 percent; casual labour rose slightly by 1.29 percent. Regular wage work declined by 2.05 percent, underscoring a continuing reliance on informal and insecure employment despite some diversification. These trends highlight the persistence of informality, the rise of household-based work, and limited progress in expanding secure wage employment across Odisha.

It has been seen that job creation was higher in urban regions during 2018-19 than in rural. Hence, an increase in workers was witnessed in the first phase of COVID-19. The devastating effect of COVID-19 led to continuous lockdowns, which forced poor urban dwellers to move to rural areas for survival during 2020–21. As a result, Urban employed population decreased. The workforce increased during 2017–18 and 2020–21, with the growth more pronounced for women, particularly in agrarian regions. The COVID-19 pandemic had a devastating effect on employment because many salaried workers not only lost employment but also faced deterioration in the quality of self-employment. In order to survive, numerous people started their own businesses with the help of unpaid family labour. This pandemic shifted employment from salaried work to self-employment (Chand, 2022). Demonetization on November 8, 2016, and GST implementation on July 1, 2017, slowed down India's economic expansion. The outbreak of the COVID-19 pandemic also affected economic structure of India negatively. The increase in the female LFPR was due to distress in the economy during 2017–18 to 2019–20. The proportions of self-employed women increased across all sectors of the economy (Goel, 2024). The shortage of suitable employment and engagement in underemployment and low-

productive jobs forced people, especially females, to choose self-employment (Joshi & Mitra, 2020).

Figure 11: Employment Type of (Rural+Urban) Person



Source: PLFS (2017-18 to 2023-24). Note: The trend line diagram is creation of author

Table 4: CAGR of Employment types of Rural, Urban and (Rural+ Urban) Areas for Odisha

Types of Employment	Rural			Urban			(Rural + Urban)		
	Male	Female	Person	Male	Female	Person	Male	Female	Person
Own Account workers, employer	-3.25	11.31	-3.31	-3	4.89	-2.48	-3.2	10.36	-3.15
Helper in HH Enterprise	9.78	4.09	12.25	5.66	-0.88	4.71	9.47	4.4	12.02
All Self-employed	-1.17	6.28	1.43	-1.94	2.52	-1.22	-1.25	6.36	1.29
Regular wage	1.7	-9.27	-2.27	0.57	-0.36	0.51	1.03	-7.67	-2.05
Casual Labour	1.82	-10.99	-2.34	4.09	-4.6	2.07	2.02	-10.29	-1.79

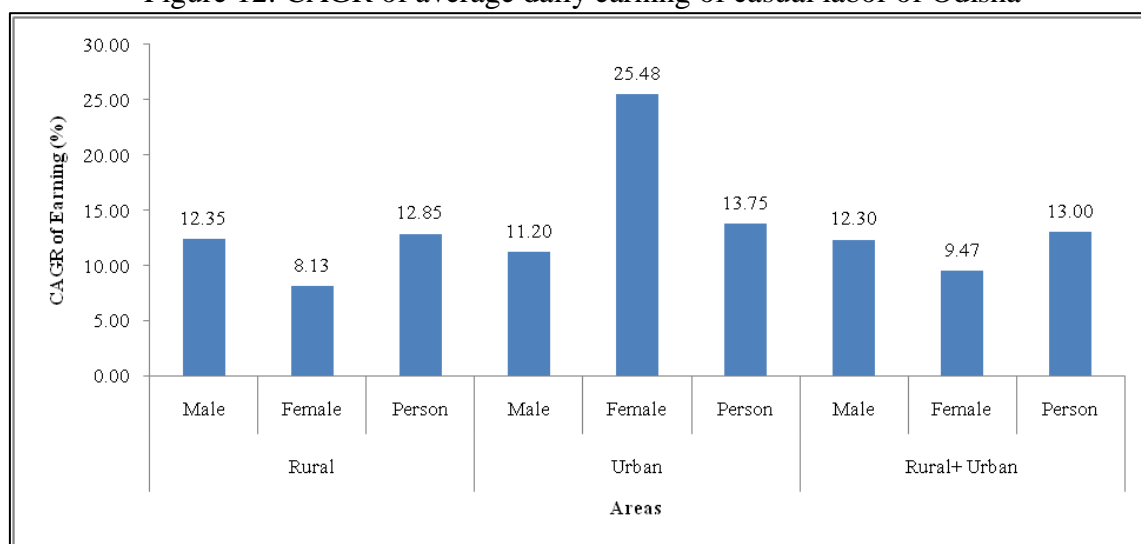
Source: PLFS (2017-18 to 2023-24). Note: The CAGR is calculated by author

#### 4.7. Growth of Average Monthly Earning of casual labour

The Compound Annual Growth Rate (CAGR) can be defined as a mathematical tool used to appraise the average annual growth of an investment over a long period of time (Organization for Economic Co-operation and Development, 2020). The CAGR has been calculated for the period 2017–18 to 2023–24. As visible in Figure 12, the CAGR value of average daily earnings of casual labour in Odisha is positive in rural, urban, and combined areas. The CAGR for rural men and women is 12.35 percent and 8.13 percent, respectively, whereas for city males and females, it stands at 11.20 percent and 25.48

percent, respectively. This represents the yearly growth rate of average daily earnings of agrarian males is greater than agrarian females, while in Town, the annual growth rate of females is 2.2 times that of males.

Figure 12: CAGR of average daily earning of casual labor of Odisha



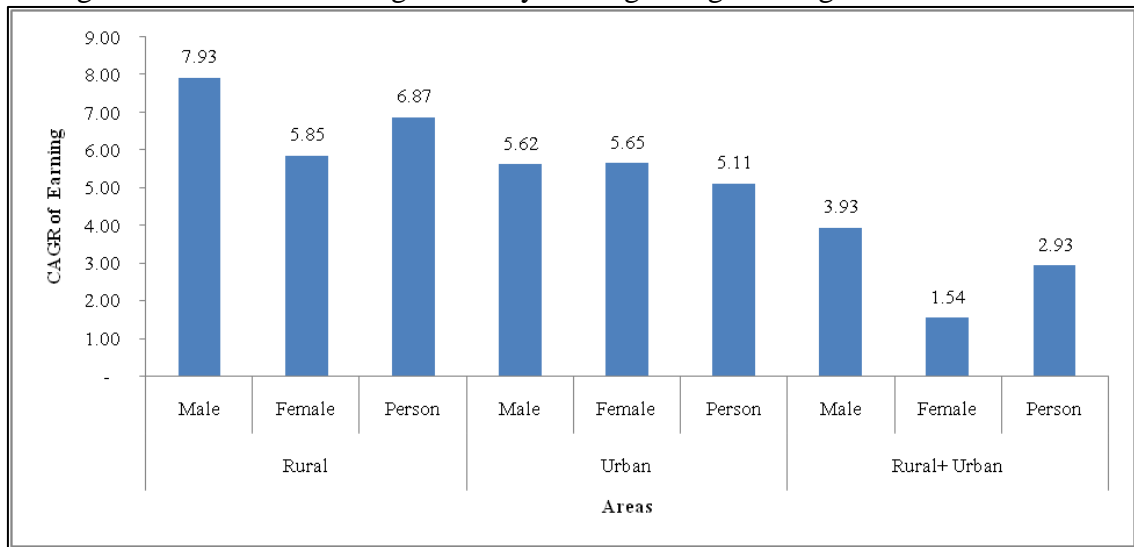
Source: PLFS (2017-18 to 2023-24). Note: The CAGR and bar diagram are creation of author

The annual growth rates of males, females, and persons in combined areas are 12.30 percent, 9.47 percent, and 13.0 percent, respectively, with persons showing better growth compared to males and females. Overall, it can be inferred that there is growth in the average monthly earnings of casual labour during 2017–18 to 2023–24, with urban female earnings showing an annual growth rate of about 26 percent.

#### 4.8. Growth of average monthly Earning of regular wage workers

The CAGR has been calculated for the period 2017–18 to 2023–24. As visible in the bar diagram, the CAGR value of average monthly earnings of Salaried workers of Odisha is positive in rural, urban, and combined areas. The CAGR values of agrarian male and metropolitan regions females are 7.93 percent and 5.85 percent, respectively, while the same values for men and women in metropolitan regions are 5.62 percent and 5.65 percent.

Figure 13: CAGR of average monthly earning of regular wage workers of Odisha



Source: PLFS (2017-18 to 2023-24). Note: The CAGR and bar diagram are creation of author

This means the annual growth rate of average earnings of male regular wage workers is greater than females in rural areas, while in urban areas the annual growth rates of males and females are almost equal. The annual growth rates of males, females, and persons in combined areas are 3.93 percent, 1.54 percent, and 2.93 percent, respectively, with males showing better growth compared to females and persons.

Overall, it can be said that the yearly growth rate of average monthly earnings of regular wage workers in agrarian regions and town areas is more than 5 percent, but in the combined areas it is below 5 percent.

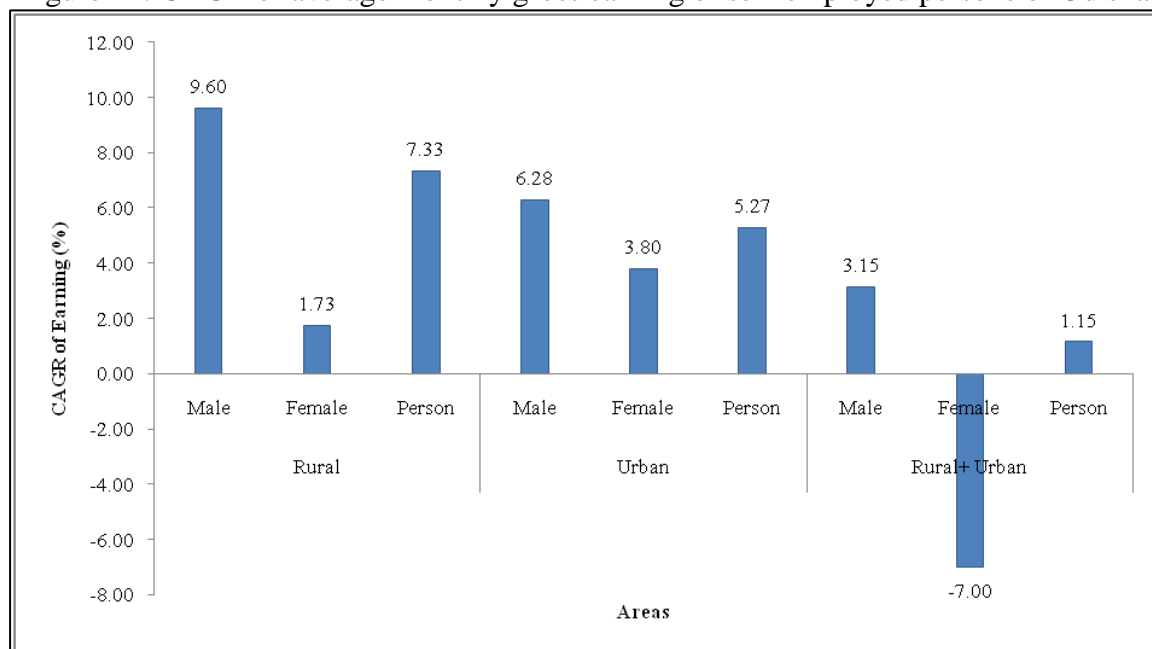
#### 4.9. Growth of average monthly Earning of self-employed workers

The CAGR has been calculated for the period 2017–18 to 2023–24. As visible in the bar diagram, the CAGR value of average monthly gross earnings of self-employed persons in Odisha is positive in rural, urban, and combined areas, except for females in combined areas. The CAGR values of rural males and females are 9.60 percent and 1.73 percent, respectively, while the same values for men and women in town areas are 6.28 percent and 3.80 percent. The CAGR values of male population and female population in combined areas are 3.15 percent and (–7.0) percent. This means the yearly progression

rate of average earnings of male population is greater than female population in each area. The annual growth rates of persons in rural, urban, and combined areas are 7.33 percent, 5.27 percent, and 1.15 percent respectively. Here, the growth rate of earnings of rural persons is greater than urban and combined areas.

Overall, it can be said that the average annual earnings of independent male workers are growing faster than those of females and persons in each area. It means males engaged in self-employment in Odisha are experiencing a higher annual growth rate of earnings.

Figure 14: CAGR of average monthly gross earning of self-employed persons of Odisha



Source: PLFS (2017-18 to 2023-24). Note: The CAGR and bar diagram are creation of author

#### 4.10. Discussion

The Government of India released ₹4,638 crore for Odisha, and the rural rate of unemployment declined from 54 per thousand in 2021–22 to 36 per thousand in 2022–23 (DoRD, NSSO Employment & Unemployment Survey Reports; PLFS; NSSO). Employment is closely associated with growth and prosperity. The quantity and quality of employment are key factors that determine how meritoriously economic output translates into improved living standards for the population. With the creation of employment,



demand-driven economic growth increases, and the dependence of people on government support for a dignified life decreases. The need of the hour is to provide suitable jobs according to qualifications that meet the needs and aspirations of India's young workforce (Economic Survey 2023–24). Between 2018 and 2022–23, the SDG index shows across states and Union Territories, with Odisha also emerging as a good-performing state (Economic Survey 2023–24).

Between 2017–18 and 2021–22, the female LFPR in India augmented significantly, rising from 23.3 percent to 32.8 percent, with rural areas driving much of this growth (GoI, 2023).<sup>5</sup> In Odisha, a similar trend is evident, particularly in rural areas where FLFPR rose more sharply than in urban areas. Several factors explain this shift. Demographic changes such as declining fertility and rising education levels are vital for freeing up women's time and improving their employability (Andres et al., 2017; GoI, 2023). Government programs such as *BetiBachaoBetiPadhao*, Skill India Mission, and MGNREGA have also provided incentives and opportunities for women to engage in paid work (MoWCD, 2023). Despite these improvements, overall participation remains lower than desired, with significant gender gaps compared to male participation rates. Although women's participation in the labour force has risen, structural barriers continue to shape their employment choices and limit access to quality jobs. A major proportion of women cited unpaid care responsibilities and social norms prioritizing men's employment as reasons for staying out of the workforce (GoI, 2023).<sup>6</sup> Women who do enter the labour market are often concentrated in informal and insecure jobs, reflecting the persistence of the "male breadwinner/female homemaker" norm (Chaudhary & Verick, 2014). About 44.5 percent of women outside the workforce report being occupied with household duties and childcare, a figure that has barely changed despite policy interventions (GoI, 2023).<sup>7</sup>

A notable feature of female LFPR is the concentration of women in self-employment and informal work. In 2021–22, 19.7 percent of women were self-employed, often as helpers in family enterprises, compared to just 5.3 percent in regular wage or salaried

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<sup>5</sup> Directorate General of Employment (GoI), 2023, *Female Labour Utilization in India*, Ministry of Labour & Employment

<sup>6</sup> Directorate General of Employment (GoI), 2023, *Female Labour Utilization in India*, Ministry of Labour & Employment

<sup>7</sup> Directorate General of Employment (GoI), 2023, *Female Labour Utilization in India*, Ministry of Labour & Employment

employment (GoI, 2023). In Odisha, the majority of rural women who entered the workforce did so as helpers in household enterprises — a role that often involves unpaid or low-paid labour (Joshi & Mitra, 2020). This shows that although women are willing to contribute economically by entering the labour market, the limited availability of stable, well-paying jobs makes them vulnerable.

The relationship between education and FLFPR is quite peculiar. Women with no schooling or with very high levels of education tend to work, while those with moderate education often remain out of the labour force, reflecting a U-shaped relationship (Andres et al., 2017; GoI, 2023). Even when women enter paid work, they face significant gender wage disparities: both regular and casual women workers earn less than their male counterparts for similar work, and these differences are more pronounced in urban regions than in rural regions (GoI, 2023). Thus, while participation rates have risen, the quality of employment and parity in earnings remain significant challenges.

Economic shocks over the last decade — such as demonetization (2016), GST implementation (2017), and the COVID-19 pandemic (2020) — have also altered employment patterns. During the pandemic, many salaried jobs were lost, pushing both men and women into informal self-employment and unpaid family work (Chand, 2022; Goel, 2024). This shift was particularly pronounced among women, who took up self-employment in family enterprises as a survival strategy, reinforcing the trend towards informal, insecure work (GoI, 2023).

## **5. Conclusion**

The analysis of labour force trends in Odisha between 2017–18 and 2023–24 highlights significant shifts in both participation and employment quality, with strong gendered dimensions. Female participation has risen sharply, particularly in rural areas, driving much of the growth in LFPR and WPR. This reflects the combined influence of policy initiatives, socio-demographic changes, and structural economic shifts. Unemployment has declined across all categories, suggesting better absorption of the labour force. Yet, the composition of jobs reveals concerns. For women, self-employment—often as helpers

in household enterprises—has grown, but these roles are largely informal, low-paid, or unpaid. At the same time, regular wage employment for women has declined, limiting access to stable, formal jobs. Male employment patterns show a persistence of casual labour and stagnation in regular wage work. Urban women fared slightly better, with modest improvements in wage employment and reduced casual labour, though informality continues to dominate. Earnings trends reveal growth across worker categories, particularly among urban females. However, gender gaps remain wide: self-employed men have experienced much higher earnings growth than women, reinforcing persistent inequality.

Overall, Odisha's labour market has expanded and absorbed new entrants, particularly women. However, the concentration of female workers in informal, insecure, and low-paying jobs underscores the need for deeper policy action. Future strategies should prioritize decent and remunerative work, with interventions such as skill development, digital literacy, gender-responsive workplace policies, childcare support, enterprise development, and formalization of informal work. Strengthening social protection and safety nets will enhance resilience to economic shocks. These measures are essential to ensure that rising labour force participation translates into sustainable, inclusive, and equitable development, recognizing and rewarding women's economic contributions while addressing structural barriers that reproduce gendered inequalities (GoI, 2023; Joshi & Mitra, 2020; International Labour Organization, 2024; Ghosh, 2025).

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