

Original Article

Female Labour Force Participation in India: The Post-2017 Turnaround

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Abstract - Trends in the Female Labour Force Participation Rate (LFPR) in India have been inconsistent, ranging from constant declines in the early 2000s to rapid increases in the late 2010s. Using data from the Periodic Labour Force Survey (PLFS) and National Sample Survey (NSS), this paper examined the reversal in female LFPR in India, highlighting the post-2017 rise in contrast to the preceding period marked by a consistent decline. Trend analysis and correlation analysis were applied to identify the possible factors and their relationship with female LFPR. The findings showed that between 2017-18 and 2023-24, male LFPR rose by 2.7%, while female LFPR grew much faster, increasing by 14.2%. Moreover, in 2017, female LFPR reversed its declining trend at 17.5% and began rising, reaching 31.7% by 2023-24. By examining the industry-specific data, the study found an agriculture-focused shift among women in India. Furthermore, by examining employment type and income, the majority of the increasing female LFPR can be attributed to economic distress caused by the COVID-19 pandemic, which forced women into work. Subsequently, improved survey methodologies of the PLFS and multiple educational policies promoting working women contributed to this trend. Additionally, it was identified that most of the increase in female workers was in informal, unpaid, and self-employed roles. Therefore, these findings support the hypothesis that the increase in female LFPR results from economic compulsion rather than increased employment opportunities for women in India.

Keywords - Female, LFPR, Policies, Education, COVID, Industries.

1. Introduction

1.1. General Background

Trends of women's labour force participation in India have been inconsistent in the 21st century, initially experiencing a decline from 2004 to 2011. However, a reversed and rising trend post 2017-18, with the women's LFPR increasing from 23.3% to 31.7% has been highlighted [1]. In the early 2000s, specifically 2004-2011, a number of barriers and constraints acted against working females. This included wage and gender discrimination, along with limited opportunities in employment and education for women, which prevented them from working, as they did not have the required skills or knowledge to take on formal jobs [2,3]. Post 2017, several of these factors diminished due to changing social attitudes and policies. Moreover, multiple factors contribute to the trend of increasing female LFPR in India. Improved education and higher literacy rates enhanced female workers' skills, enabling them to find employment. Further, specific policies supporting female employment, such as increased maternity leaves and gender specific working facilities, catered to the needs of working women, encouraged women to find work [4]. Moreover, improved survey methodologies, pointedly the PLFS increased frequency and accuracy of data collected, better capturing seasonal changes in employment, contributing to the increased rate [1]. COVID-19 and the associated economic downturn also led to an expansion of female workers due

to a loss of household income [5]. Hence, this surge in female LFPR suggests growth and expansion of the female labour market and a step closer towards gender equality. However, a closer look shows that this rise has not resulted from improved economic opportunity, but rather a compulsion to work due to economic distress caused by the COVID-19 pandemic [6].

1.2. Literature Review

Female Labour Force participation has been discussed extensively in the literature. To understand trends and factors influencing the female labour force participation rate in India, a recent study used data from the National Sample Surveys and implemented econometric techniques to analyse trends and determine the factors [7]. Using data from 1983-84 to 2004-05, the study found a consistently low LFPR at 25% on average.

However, there was a 5% increase from 31% to 36% in the LFPR when including women either in school or working. Moreover, the study found that unpaid work was not a significant factor in contributing to the LFPR, as it was similar for men and women. The study concluded that although the difference in wages of women and men was mostly explained by measurable factors such as skills, education, and experience, there remained a 10-20% gap not explained by these factors, which could point to inequality, such as discrimination [7].



Similarly, specific to rural areas, another study aimed to understand factors influencing the women's labour force participation in India [8]. This study used data from the National Sample Survey and the National Family Health Survey and implemented regression analysis to understand trends and determinants of female labour force participation. The study found a huge decline in women's participation in agriculture and labour, decreasing from 36% in 2004-05 to 21% in 2015-16. At the same time, the proportion of women outside the labour force increased by 16% from 51% to 67%. This study also found a U-shaped curve between education and LFP, indicating that women with a median education were the least likely to work, while women with either low education or high education contributed to high LFP. Furthermore, women with young children, less mobility, and husbands who had migrated were less likely to be a part of the labour force [8].

Moreover, a different research was conducted to analyse the trends and determinants of labour force participation rates (LFPR), particularly in Uttarakhand [9]. Consistent with previous studies, this study also made use of data from the National Sample Survey Office and Periodic Labour Force Survey and used regression analysis to understand and determine relationships. The results showed that males had much higher LFPR than females in Uttarakhand. The study determined that age, marital status, education, family size, and caste were significant determinants of labour force participation, relating larger family size to lower participation and higher education to higher participation. Married women, especially those with children, are less likely to participate in the labour force. Younger women between the ages of 15-24 delay workforce participation due to improved educational opportunities, and women of some castes face restrictions and regulations on working [9].

Despite identifying the factors, it is important to explore the barriers faced by Indian women in participating in the labour force [10]. In the same realm, research explored the barriers to women's labour force participation in India. The study showed a surprising decline in FLFP (Female Labour Force Participation), despite economic growth in India. The study attributes low FLFP to low access to education and job markets, discrimination towards working women, and a lack of pressure on women to work due to household incomes. Lastly, the study highlighted the requirement to implement policies to increase FLFP [10].

Using a different analytical approach, the trends and factors influencing labour and work participation in India are examined, focusing on gender differences [11]. The study uses data from the National Sample Survey Office and Periodic Labour Force Survey data from 2011-12 to 2022-23 and implements Compound Annual Growth Rate (CAGR) analysis to study and understand trends in LFPR. The study found a greater CAGR for women in rural areas compared to males and concluded FLFP was positively correlated with total LFP but negatively correlated with

unemployment rate in both urban and rural areas. The study determined that with higher FLFP, India can achieve greater economic growth and gender equality, and this can be achieved by improving access to education, increasing skill development, and promoting inclusion for working women [11].

1.3. Research Gap and Rationale of the Study

While existing literature covers the trend of increasing female LFPR post 2017, there has been limited research on the significance of economic downturn and COVID-19 on this trend. Moreover, existing literature fails to cover the nature of the increasing LFPR, being work due to economic compulsion rather than improved opportunities for women in India. Furthermore, limited work highlights the joint nature of various factors, including improved survey methodologies, sectoral shifts in female employment, and the distress-driven workforce surge contributing to this trend.

The LFPR represents the percentage of the working-age population (age 15 and above) that is employed or actively seeking employment. The LFPR of a country can indicate the health of the economy, the stage of development of the country, and trends in LFPR can help determine future economic forecasts. Furthermore, the LFPR has a number of implications across economic, policy, and social factors. A high LFPR suggests most of the productivity capacity of the economy is being utilised, which will, in turn, contribute to a high GDP and economic growth. Contrarily, a low LFPR would indicate underutilisation of resources and a lower GDP. Moreover, a low LFPR could suggest that a large proportion of a country's population lacks the education and qualifications to seek employment. This, in turn, would result in the government investing in education and training schemes to strengthen the workforce. A comparison between the male and female LFPR in the country can also show the extent of gender equality in the country; for example, a high female LFPR would indicate empowerment and equality in the country. India experienced an unexpected trend in the female LFPR, which contrasted earlier trends.

Therefore, this paper examines in depth the distress-driven growth of female LFPR. Using data from PLFS and other literature, the study finds the consequent growth of jobs for women in the informal sector, as well as self-employment and unpaid roles in family enterprises. This reversing trend raises a critical question: Was the rising female LFPR due to a genuine improvement in working opportunities for women, or was it due to the distress-driven participation?

2. Data & Methodology

2.1. Research Aim and Objectives

This study aims to identify the factors influencing female LFPR in India, particularly post-2017. The following objectives are examined to assess this aim.

- Identifying the trend of LFPR in India (2004-05 to 2023-24)

- Exploring LFPR trends in India according to gender
- Evaluating Female LFPR Trends in India according to Industries
- Analysing the relationship between Female education and LFPR
- Highlighting the other factors impacting the Female LFPR trends post 2017

2.2. Data and Variables

A secondary time-series dataset for India was used to evaluate the aim and objectives of this study. The study uses the annual Periodic Labour Force Survey (PLFS) reports from 2017-2018, which provide annual data on the Labour Force participation rates by gender, type, and region. Subsequently, the National Sample Survey (NSS) (68th Round, 2011-12) and Labour Bureau of Statistics (2012-2016) have been used for data on LFPR before 2017. The analysis focuses on data of women part of the labour force, 15+ years, using the usual status classification. The following variables were analysed in this study:

- Labour Force Participation Rate (LFPR): LFPR has been examined across different divisions to assess labor force participation. LFPR is the percentage of the population aged 15 and over that is economically active, meaning they are either employed or unemployed and actively seeking work. Data used from 2004-05 up to 2023-24 for the following divisions.
 - By Gender: This includes LFPR in India based on the gender- Males and Females from 2004-05 to 2023-24.
 - By Industry: Herein, the post 2017-18 data for Female LFPR according to industries has been considered. The major industries include

Agriculture, Manufacturing, Utilities, IT and Communications, and Others.

- By States: Lastly, the female LFPR data for 35 States and Union Territories of India have been analysed from 2017-18 to 2023-24

- Education: Literacy rate is used as an indicator to measure education. Literacy Rate is the percentage of the population aged 15 and over that is economically active, meaning they are either employed or unemployed and actively seeking work. The data for these rates has been evaluated from 2017-18 to 2023-24 to understand the relationship between female LFPR and education.

2.3. Data Analysis Method

This study used multiple methods for the data analysis. Firstly, Trend analysis is used to identify patterns and trends in the LFPR data over a period of time. Trend lines help to understand the general direction of the trend of the data, whether it is increasing, decreasing, or staying constant. The trend line in Figure 1 shows the clear shift in LFPR trends in the late 2010s. Other trend graphs allow for a comparison of sectoral shifts and a comparison with the male LFPR to understand the rise in female LFPR further further. The research also used a Pearson correlation to examine the relationship between female literacy rates and LFPR. Pearson correlation measures the magnitude and direction of the linear relationship between two variables, having a value between -1 and 1. The closer the value is to one, the higher the correlation. Lastly, the LFPR data across the States and UTs is analysed in tabular form. Tabular representation for LFPR across dates allows for side-by-side comparison throughout the given time period.

3. Results and Discussion

3.1. Trends in Labour Force Participation Rates

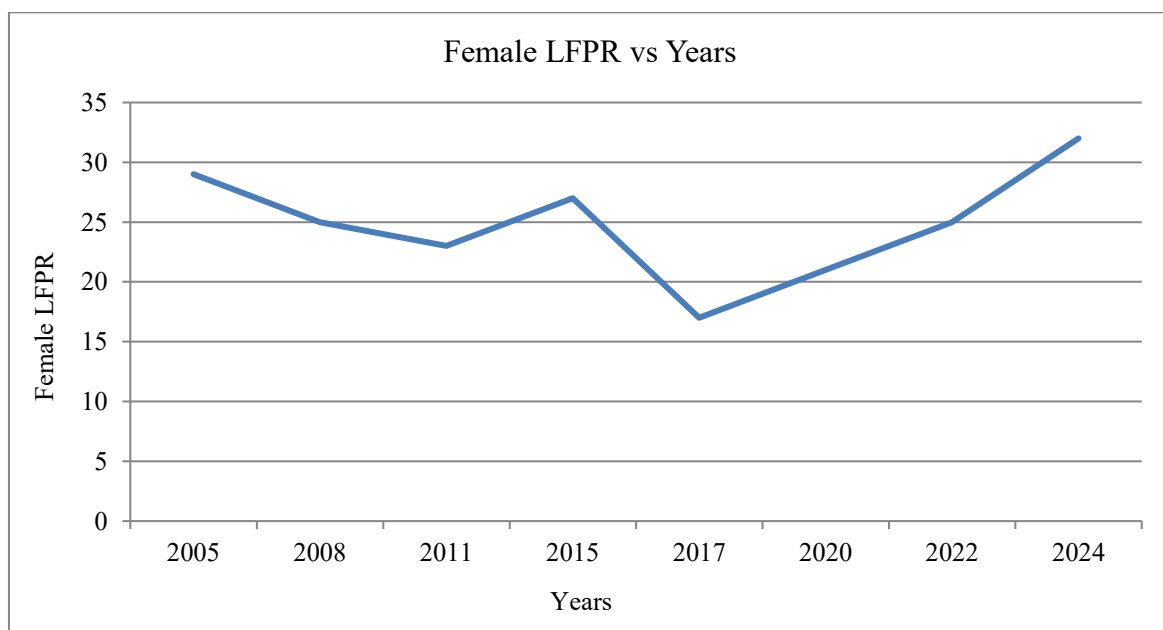


Fig. 1 Trends in Female LFPR from 2004-05 to 2023-24

Figure 1 displays the female LFPR in India from 2004-05 until 2023-24. The trend line shown in the figure clearly indicates a declining female LFPR, which fell from 29% in 2004-05 to 23% in 2011-12 [12]. The graph shows a small increase until 2015 before declining to 17.5% in 2017. Post 2017, the graph shows an upward trend, reaching 31.7% in 2023-24. The next graph explains the post-2017 trends in LFPR.

Figure 2 displays the LFPR by gender annually post-2017. Overall, the total LFPR in India shows an increasing trend, rising from 36.9% to 45.1% in the years shown. The trend line for female LFPR shows an unexpected yet

steady increase in Female LFPR. The female participation in the labour force increased from 17.5% in 2017-18 to 31.7% in 2023-24, depicting a 14.2 per cent jump [1]. Other studies, such as S. Mehrotra's and Singh, R. (2024), have identified similar trends [5,11]. During the same period, the male LFPR experienced a significantly smaller increase of 2.7 percentage points to 58.2%. Hence, the increase in LFPR is steeper for females than for males. This highlights the fact that there were specific factors influencing the female labour force, particularly. The next section discusses some of those factors that impact the participation of females in the labour force.

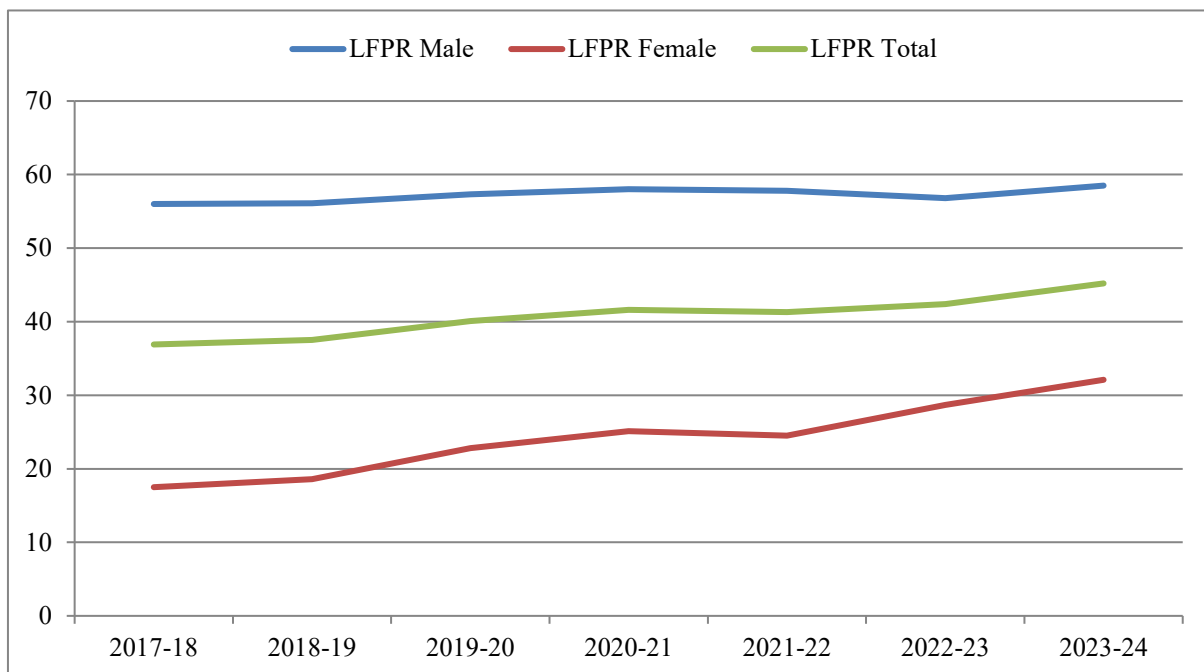


Fig. 2 Trends in Labour Force Participation Rates (LFPR)-By gender, post 2017

3.2. Factors Contributing To a Rise in the Female LFPR Post 2017

3.2.1. Policies and Reforms

Policies and Reforms implemented in India have been aimed at increasing educational and working opportunities for women. These changes eliminated previous barriers to women's entry into the labour force, improved working conditions, and provided social protection for women in the workforce. Educational opportunities for women in India have been increasing, which has a two-faced impact on the LFPR.

On one hand, this delays the entry of women into the labour force; however, in the long run, women are more likely to find employment opportunities. Policies aimed at delaying or preventing child marriage, such as "Beti Bachao, Beti Padhao", contribute to improving attitudes towards educating girls and promoting an increase in female workers in the long run.[13] Furthermore, the Samagra Shiksha Abhiyan policy, which aims to ensure girls' enrollment in formal education, was introduced in 2018 [14]. Additionally, the Kasturba Gandhi Balika

Vidyalaya (KGBV) scheme provides residential schools for girls in underserved areas, ensuring access to education [15]. Though these policies seem optimistic, proper implementation and impact on women's employment are in progress.

Consequently, there has been a rise in the number of women undertaking white-collar jobs and professional fields such as IT, banking, and education. Post 2017, the government of India improved on previous policies and implemented several new policies and schemes to encourage female labour force participation. The MGNREGA (Mahatma Gandhi National Rural Employment Guarantee Act), initially implemented in 2005, was altered in 2017 to focus especially on increasing female participation in the labour force.

The policy guarantees 100 days of regular salaried employment to every adult rural household member willing to do manual work. The act was planned with the requirement that a minimum of one-third of the workers participating in the scheme had to be women. This quota

was designed to reduce gender gaps in employment and encourage women to work by providing easy opportunities. Before 2017, in various states, this quota was not met. However, strengthened policies required closer monitoring and guidelines to ensure actual implementation of the quota. These improved regulations have pushed the number of working days by women participants in MGNREGA to 54% in 2021-22 [16].

Furthermore, the MGNREGA has implemented a variety of specific policy changes catered to females in the labour force [17]. These include gender sensitive working facilities, making the workforce participation safer and more accessible to women; encouraging women to lead households. This ensures women get first preference in job allocation; Wage Fairness reforms in 2017 encouraged wages to be transferred directly to women's bank accounts, reducing reliance on intermediaries.

These reforms caused an increase in participation numbers for women in MGNREGA from 47-50% before 2017 to 54-56% post 2017. These newly enforced policies not only showed an increase in the number of female LFPR, but also provided a safety net for rural women during times of economic downturn, as well as a more reliable work environment, more comfortable and convenient for women [2]. Several other policies catered to improving female labour force participation were also established, such as an increased period for maternity leave from 12 weeks to 26 weeks, increasing the likelihood of female participation in the workforce and continued employment post-birth.

Moreover, new labour codes introduced in 2019-20, such as Code on Wages, The Code on Social Security, and The Occupational Safety, Health and Working Conditions Code, prevent gender wage discrimination and introduced the implementation of creche working facilities, encouraging females to work. Strict regulations on women's employment have been lifted, allowing females to work night shifts in factories and the service sector [19,20].

3.2.2. Improved Survey Methodologies

Analysts attribute the increasing trend in women's LFPR post 2017 to an improvement in the method of data collection, the PLFS, rather than an actual shift in labour force participation among women. Before 2017, the labour force surveys, such as the National Sample Survey, often underestimated women's employment due to several factors.

Firstly, the NSS EUS survey was conducted once every five years, contributing to inconsistencies in trends and data in the labour market. The PLFS included more frequent surveys to capture seasonal variations in employment, which is important in a field such as agriculture, and the collection of quarterly urban and annual rural-urban data. More frequent surveys were crucial to collect data, as rural women often engaged in

agricultural or casual work during peak season. Such data was easily missed by the NSS [21]. Recently, in 2025, the PLFS moved to monthly data collection, further improving data accuracy and eliminating inconsistencies.

Initially, during the first implementation of the PLFS in 2017, the Female LFPR experienced a decline from the previous year. This is because the previously used NSS includes a section of probing questions designed to identify economic activities that women are involved in, which are often overlooked, and which the PLFS removed during its first years of use. More recently, changes in the PLFS methodology during 2023-24 have increased sensitivity to women's work.

This caused a surge from 27.8% in the previous year to 31.7% in 2023-24.[1] Under the new regulations of the PLFS, if a woman is primarily engaged in domestic duties but spends regular hours on tasks such as the collection of firewood, this is now counted as a subsidiary economic activity. Under the previous surveys, this would be remarked as not in the labour force. Due to this change, women engaging in subsistence work are now included in labour force statistics, which were previously miscounted. This shift, previously representing "not in the labour force" to now "self-employed", raises the LFPR [22].

Moreover, PLFS conducts more in-depth and detailed analyses of sector- and industry-specific issues, helping to understand female employment trends further. Due to greater sectoral detail, the collection of data helps identify growing areas of female employment, such as domestic work, and highlights the significance of agricultural work, showing that women are heavily engaged in low-productivity work. This is a sign of underemployment. Moreover, the PLFS collects data on employment in the informal sector and underemployment. This is done by gathering data on whether a job contract exists, receipt of social security benefits, and the nature of the job tenure [1].

The Time Use Survey from 2019 also suggests that women spend significant hours on unpaid economic work, such as collecting fuel or gardening. The inclusion of such activities in the latest PLFS data contributes to the expansion of LFPR in recent years [23]. Thus, to some extent, the higher female LFPR is due to the more frequent data collection and improved methodology, which captures informal work, and not only due to an increase in women in paid jobs. The PLFS implemented a number of methodological improvements to the survey, from the frequency of data collection to detailed questionnaires that impact how women's work is captured.

3.2.3. A distress-driven increase - COVID-19

Experts such as Mehrotra [5] point to the rise in female LFPR to an economic slowdown of the late 2010s and the COVID-19 Pandemic. Previously, India has seen surges in female labour supply due to necessity and distress during periods of economic downturn, which was witnessed in the 1980s and late 2000's where the global financial crisis resulted in a large number of women

turning to marginal work. During the COVID-19 pandemic, many households experienced falling income levels and job losses, forcing women to seek employment to maintain a good standard of living. Due to the economic pressure, as well as shifting household demands and rising care costs, many women were forced to work without pay during this period, suggesting a crucial way for families to cope.

This is evident from the nature of jobs undertaken by a large number of women. Most of the work undertaken by women was self-employment, rather than paid formal jobs, which reflects a compulsion to work rather than increased opportunities. This is evident in the nature of jobs women took: by 2021-22, 53% of rural women workers were unpaid family helpers, and women's share in regular salaried jobs fell to its lowest in 7 years (15.9%). This suggests a great proportion of women are involved in work

due to a lack of male income and often share work on family farms or enterprises [6]. While this does contribute to the LFPR, it does not indicate an improvement in the quality of the female labour market [5,24].

3.2.4. Sectoral Shifts in Female Employment

The graph in Figure 3 shows the percentage of female workers employed in key industries in India from 2017-18 [1]. Over the period, female workers have worked primarily in agriculture, accounting for more than 50% of female workers each year.

Agriculture has shown a constant increasing trend over the years, the share of women in agriculture increasing overall from 57% in 2017-18 to 64.4% in 2023-24. This increase in agricultural participation is mainly due to schemes like MGNREGA, which encourages women to take part in the labour force [24].

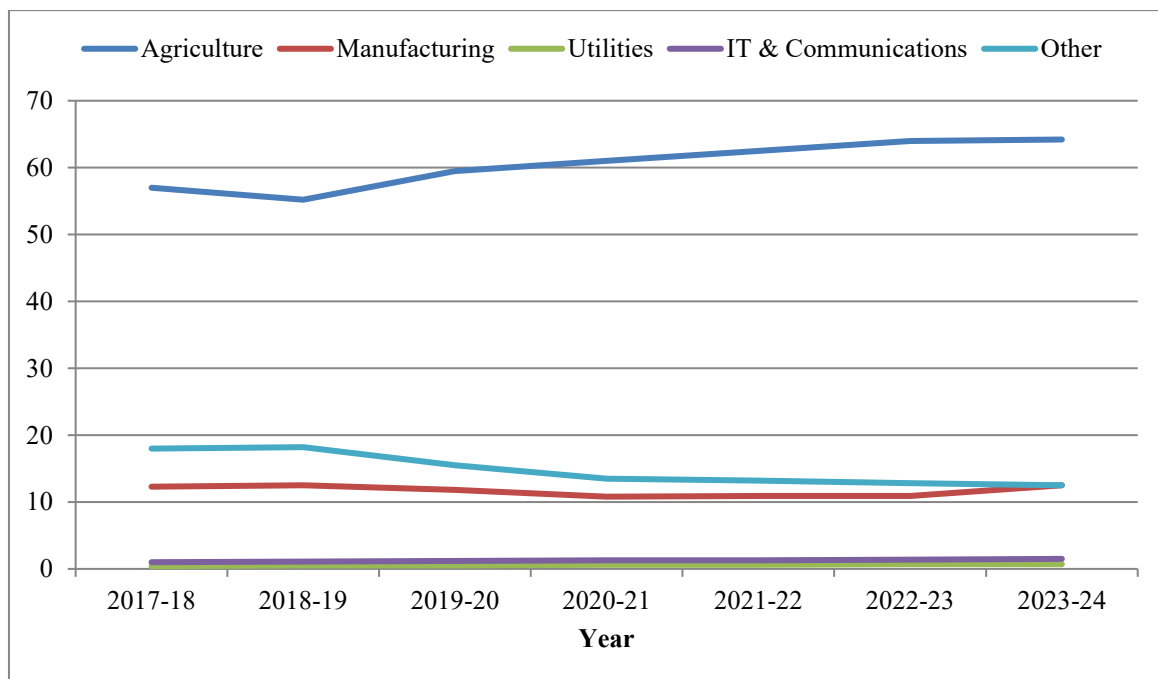


Fig. 3 Trends in Female LFPR- By Industry (post 2017)

As depicted in the graph above, manufacturing is the second-largest industry for women's employment. The percentage of females before the pandemic slightly decreased due to job losses and lower income during COVID-19 [1].

The share of women in manufacturing decreased to 11% in 2020-21, but since then has partially recovered to 11.6% in 2023-24. Utilities and IT & Communications had a minimal proportion of women's work in India [1], with both industries showing little change during the shown time period.

The last category, "Other", which is composed of industries such as healthcare and education, has shown an overall constant decreasing trend in the period, with a total 4.8 percentage point decrease from 2017-18 to 2023-24.

This was caused by limited job creation and healthcare in rural areas [5] and budgetary constraints on public recruitment and health and education after COVID-19 [17]. Moreover, many women were on short-term or informal contracts, making them vulnerable to job losses during the pandemic [24]. This further supports the claim of the stress-driven growth of Female LFPR post 2017. Most of the contribution to the increased LFPR has come in the form of agriculture, including unpaid family workers or subsistence farming. This indicates the shift towards agriculture as a safety net for families that experienced falling income levels during the pandemic. Moreover, self-employment among working women in India jumped from around 10% to 18% between 2017-18 and 2022-23 [24]. This indicates that there was no real improvement in the quality of work for women.

3.2.5. Female Education and LFPR

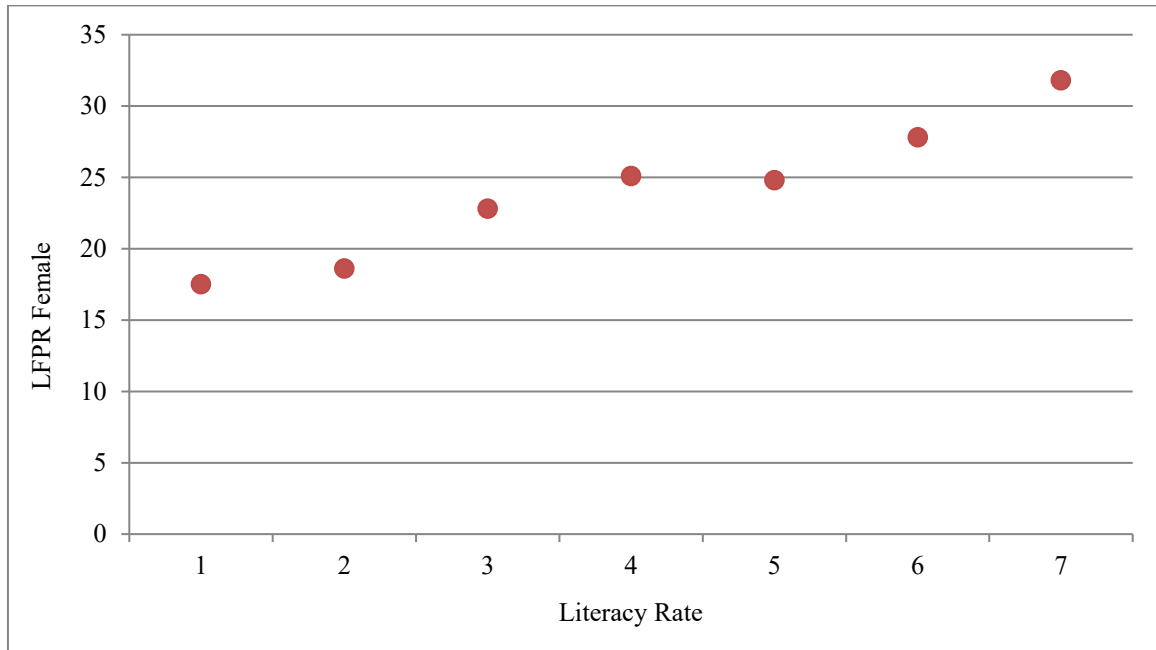


Fig. 4 Scatter diagram showing the relationship between Female LFPR and Literacy Rate

Another factor that could contribute to an increased LFPR in the long run is education. Thus, the Pearson correlation coefficient is used to understand the relationship between the female LFPR and literacy rates. A high coefficient of 0.95 ($p\text{-value} < 0.001$) shows a strong positive relationship between the variables. Moreover, the upward-sloping scatter plot validates the positive relation between female literacy rate and the Female LFPR between the years 2017-18 and 2023-24. This means that as the female literacy rate rises, it has a positive impact on the Female LFPR in India. This correlation can be

attributed to multiple reasons. Literate women are more likely to be able to navigate job markets, find training programs, and take up work. They also gain the necessary communication skills and finance required for a range of jobs in the service industry. For further policy implications, this suggests that female education should be promoted not only as a matter of gender equality, but because it has a significant contribution to the female workforce and LFPR in the long run. Continuous education of females will lead to a constant cycle of development and economic progress [25].

3.3. LFPR Across States

Table 1. Female LFPR across states (2017-18 to 2023-24)

States/UTs	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	Change (per cent)
Andhra Pradesh	42.5	40.3	39.2	45.1	43.3	45.8	44.8	2.3
Arunachal Pradesh	14.7	17.1	22.9	27.6	31.2	58.7	66.5	51.8
Assam	12.7	12.7	16.4	24.6	28.2	20.3	50.2	37.5
Bihar	4.1	4.3	9.5	10.7	10.2	22.4	30.5	26.4
Chhattisgarh	49.3	48.4	53.1	53.9	51.6	59.8	59.5	10.2
Delhi	14.3	17.8	16.1	13.8	12.2	14.8	18.5	4.2
Goa	30.9	29.9	28.2	27.3	20.7	28.1	29.3	-1.6
Gujarat	19.9	21.5	31.1	33.1	34.4	42.3	46	26.1
Haryana	14.3	15.3	15.7	19.1	19.1	20.7	24.2	9.9
Himachal Pradesh	49.6	59.2	65	62.6	66.1	71.4	67.6	18
Jharkhand	15.4	20.7	35.7	43.9	45.2	45.8	49.8	34.4
karnataka	26	24.9	33.8	35.9	31.8	38.1	38	12
Kerala	26.5	30.6	31.9	33.2	37	37.5	40.8	14.3
Madhya	31.7	27.9	37.7	40.5	41	44.3	52.3	20.6

Pradesh								
Maharashtra	30.8	31.6	38.7	36	38.4	40.7	40.1	9.3
Manipur	23.5	26.3	29.9	21.4	23.4	31.3	48.7	25.2
Meghalaya	51.2	51.2	45.7	51.6	50.2	60.9	71.8	20.6
Mizoram	30	29.2	37	41.7	34.7	45.1	41.7	11.7
Nagaland	16.7	22.7	43	47.6	51.5	65.2	64.3	47.6
Odisha	19.5	24.4	33.1	33.2	32.9	44.7	49.4	29.9
Punjab	15.5	19.1	23.7	23.1	24	27.6	31.1	15.6
Rajasthan	27	31.4	38.6	39.9	40	47.9	50.9	23.9
Sikkim	43.9	50.3	59.4	61.1	57.8	68.6	68.2	24.3
Tamil Nadu	33.7	37	40.2	43	40.7	40.5	43.2	9.5
Telangana	32.6	38.3	44.3	45.4	44.7	44.8	46.7	14.1
Tripura	12.5	16.6	24.2	30.8	26.7	35.2	47.1	34.6
Uttarakhand	18.1	19.4	31.8	31.5	33.1	38.7	45.6	27.5
Uttar Pradesh	13.5	13.6	17.7	22.6	26.3	31.2	34.5	21
West Bengal	20.8	22.2	24	28.7	27.9	33.8	40.4	19.6
Andaman & Nicobar Islands	33.5	31.2	35.9	46.1	45.7	49.6	46.3	12.8
Chandigarh	25.2	24.7	20.4	24.1	16.8	21.4	31	5.8
Daman & Diu	24.9	18.1		-	-	-	-	
Jammu & Kashmir	30.2	33.8	56.3	43.4	44.9	50.2	52.1	21.9
Lakshwadeep	18.4	17.8	29.7	19.4	16.8	17.3	17.1	-1.3
Puducherry	17.1	31.2	31.6	29.3	35.7	37	34.2	17.1

Table 1 shows the female LFPR (%) for each Indian State, from 2017-2018 to 2023-24, and the total percentage change between these years. Across the table for the states, there is an overall increase in LFPR for almost every state, which is consistent with the trend on the national level. The states that experienced the sharpest increases included: Arunachal Pradesh (51.8 percentage point increase), Nagaland (47.6 percentage point increase), Assam (37.5 percentage point increase), Tripura (34.6 percentage point increase), and Jharkhand (34.4 percentage point increase). Several shared features stand out among these states, including large rural populations and high Self-Help Group (SHG) penetration. Each state has over 70% rural population, with Arunachal Pradesh, Nagaland, Meghalaya, Assam, and Tripura reporting 77.06%, 71.14%, 79.93%, 85.9%, and 73.83% respectively [27].

This supports the argument that rural distress-driven employment, largely in informal and agricultural roles, has contributed to the surge in female LFPR. Moreover, SHGs play a critical role in this process by providing financial access, networks, and pathways into informal work, thereby fostering female economic activity. In contrast, some states experienced either declines or only marginal increases in female LFPR over the same period. For instance, Goa saw a 1.6% decrease, while Lakshadweep recorded a 1.3% decline. States such as Andhra Pradesh (+2.3%), Delhi (+4.2%), and Chandigarh (+5.8%) reported only modest gains. Notably, states with declining or sluggish growth in female LFPR, including Lakshadweep and Andhra Pradesh, also have limited penetration of SHGs and MGNREGA, which may partly explain their weaker performance.

4. Conclusion

Female Labour Force Participation Rates in India have undergone major changes in the 21st century, with a declining trend till 2017, followed by increases up till 2024. This study aimed to find the main factors driving this increase and whether there was a true improvement in employment opportunities for women. The trend analysis found that the rising trend in female LFPR can be partially attributed to a stress-driven increase, which resulted from the loss of jobs and incomes during the COVID-19 pandemic. This forced women to work to maintain an income sufficient to support their families. Moreover, specific years such as 2017 saw increasing trends due to more specific changes, such as the MGNREGA modifications, which promoted female inclusivity in the labour force. Subsequently, changes to the survey methods and the switch from NSS to the PLFS also contributed to trends in the LFPR and caused a major increase in 2023-24. This year saw the implementation and inclusion of previously overlooked informal activities in the participation rate. Closing the gender gap in employment in India is projected to boost the GDP severely, the IMF (2018) predicts. By reducing the gap between male and female participation rates, GDP could increase by approximately 27%, with equal rates of about 60%. With such major potential improvements, the government must maintain the increasing trend in female LFPR while simultaneously maintaining a high male participation rate.

Furthermore, it has been noticed that the rise of female participation in the workforce has not been accompanied by a simultaneous improvement in the quality of employment. An overwhelming majority of female

workers are involved in the informal sector. In 2021-22, a large 53% of all female rural workers are unpaid helpers in family enterprises, which can often be only seasonal. Even among those in self-employed roles, earnings remain very low. Furthermore, paid employment among women has declined. The share of women in salaried jobs fell to 15.9% in 2023-24, which was a seven-year low. Self-employed women, on average, earn less than half the income of women with regular salaried employment. Informal jobs also come without any of the benefits and social protection that are involved with formal employment. This indicates that the recent spike in the female LFPR has not come with an expansion in decent working opportunities for women.

Policy Implications and Limitations of the Study

The results of this study can be used by multiple stakeholders. For the future, it remains integral for the government to increase the scale of the penetration of SHGs in rural regions to provide employment opportunities. Additionally, ensuring the continued and robust implementation of MGNREGA across all 625 districts in India remains essential to sustain rural

employment and support female labour force participation. Further, the government should implement skill training programs outside agriculture in fields such as IT and services, specifically for females, to increase participation and employment in these sectors. Alongside this, increased investment and nationwide implementation of gender sensitive working facilities, wage fairness, and workplace safety would further help maintain the recent trends. This would improve the working situation for women, most of whom are currently engaged in agriculture, self-employed, or unpaid family work. Most importantly, these policies, frameworks, and programs must be inclusive of all the regions, including rural as well as urban women.

Despite the useful findings and insights from the study, there are some limitations. The study did not include an in-depth analysis of factors such as caste, family size, and religion that impact labour force participation. Additionally, the study did not measure on a quantifiable level the extent to which the change in survey methodologies influenced the recorded LFPR. Lastly, the research could use statistical models and frameworks to quantify the impact of the listed factors on female LFPR.

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