

Recent trends in female labour force participation in Kerala: A comparative analysis

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Introduction

One of the key indicators of economic development is gender equality. The UN has emphasised its importance as the fifth Sustainable Development Goal (SDG). An important aspect of gender equality is women's participation in the labour market, which ultimately contributes to the country's GDP. Female labour force participation (FLFPR) is critical for economic development and gender equality, attracting significant scholarly attention. In the context of India, a nation characterised by a vast population and diverse socio-cultural fabric, understanding the dynamics and determinants of women's engagement in the workforce is of paramount importance.

Women constitute almost half (48 per cent approximate) of the largest democracies in the world. Despite this, the FLFPR, for almost three decades, has remained below many other developing countries. In a country where it is one's fundamental right to work, it is crucial to determine the root cause of this decline. India continues to grapple with significant gender disparities in its labour force, with women facing barriers to equal participation across various sectors and regions. Over the years, India has witnessed fluctuations in female labour force participation rates, influenced by demographic, economic, and social transformations. While there have been periods of progress, such as the increase in women's labour force participation during the 2000s, recent trends indicate stagnation and a decline in overall participation rates. The issue largely stems from two different strands, as suggested by the

literature-one from a micro and the other from a macro strand (Mehrotra & Parida, 2017). The set of individual and household-level socio-economic characteristics play an important role in determining female labour force participation from the micro perspective. While the macro perspective arises from the "U-shaped" theory, where FLFPR is high in low-income and high-income countries. India being a lower-middle income country, has a relatively low FLFPR.

The socioeconomic structure of India acts as a sieve that allows few women to be a part of the labour force actively. A binding constraint on women entering the labour force is that of traditional gender roles explained by the separate spheres' ideology where men participate in the public sphere and women in the private sphere (Pande & Roy, 2021). This leads to a gender-based division of work, limiting women's role in the market. This gender ideology shapes cultural norms, societal expectations, and discriminatory practices and affects educational attainment, access to resources etc. Although these are progressive times, the pace of growth of FLFPR in India has not kept with that of its GDP.

Another curious case with regard to the decline in FLFPR is the discouragement that arises from a failure to find jobs that meet one's educational qualification-leading to a mismatch of labour supply and demand. This is very peculiar to states like Kerala, where, contrary to the rising human development and living standards, FLFPR was declining (Mathew, 2015).

The paper attempts to reveal the latest trends of India's FLFPR, which is seen to be increasing, although nominally. This is a deviation from the long-existing narrative of a declining FLFPR and is made evident from the latest data. The paper is divided into mainly five sections. Section 1 deals with the introduction, and section 2 explains the data sources and methods. The analysis of the FLFPR is given in Section 3. Section 4 presents the disaggregate trends in female LFPR, and the conclusion is given in Section 6.

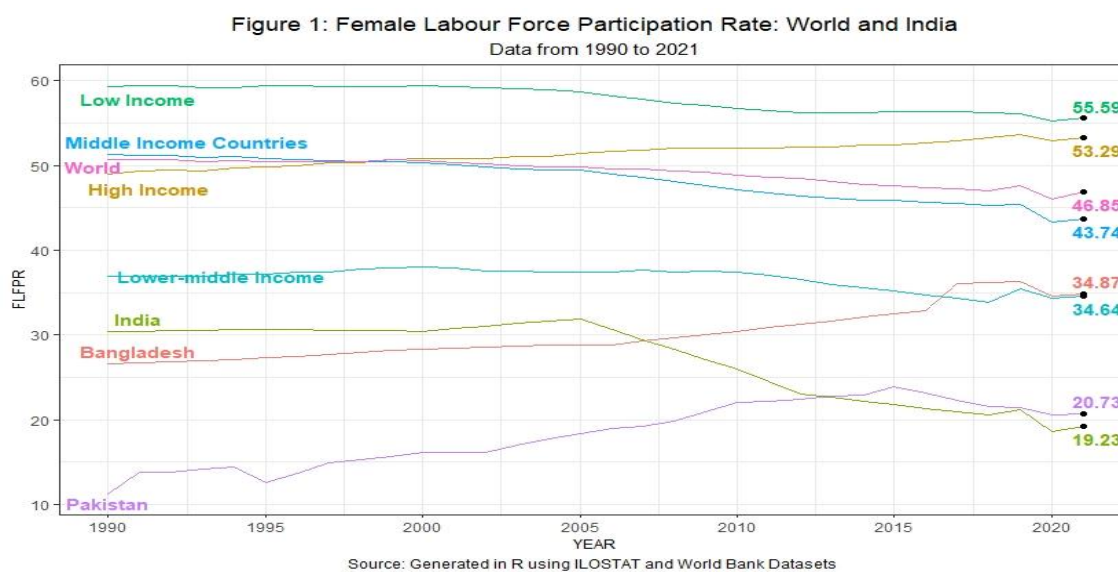
Data sources and approach

The study uses multiple rounds of Employment and Unemployment Surveys (EUS) conducted by the NSSO from 1993-94 to 2011-12, followed by the Periodic Labor Force surveys (PLFS) from 2017-18 to 2020-21. The published data used in this study draws from EPWRF, which compiled data from the published reports of the NSSO. We consider people aged 15 and above to analyse labour force participation. NSSO publishes labour force and workforce participation according to the principal status (PS) and subsidiary status (SS). We

use the combined status for the analysis. We have considered nineteen significant states for the analysis, which account for almost ninety per cent of the total GDP and population.

Female LFPR: How does India compare with others?

The female labour force participation¹ worldwide increased consistently till the mid-2000s on account of rising female education, declining fertility, and robust economic growth in almost all developing countries (Klasen et al., 2018). Despite the confluence of the encouraging trends, female participation shows a downward trend in the previous decade in all the country groups except in the high-income category (Figure 1). Low-income countries have the highest female LFPR, followed by high-income countries. The lower-middle-income countries depict the lowest female LFPR among all other country groups. The observed trend shows Feminisation U Hypothesis with very high levels of female LFPR in low-income and high-income countries and low female LFPR in middle-income countries, as postulated by many previous studies. This hypothesis was developed based on an analysis of 169 countries between 1990 and 2013. It reveals that during the initial stages of economic growth, there is a decrease in female labour force participation. This occurs because women who were previously employed to meet their basic needs now have the option to leave the workforce due to higher household incomes. However, women tend to re-enter the workforce as incomes continue to rise. A decline in both fertility rates and the gender education gap often accompanies this increase in economic activity (Figure-1).



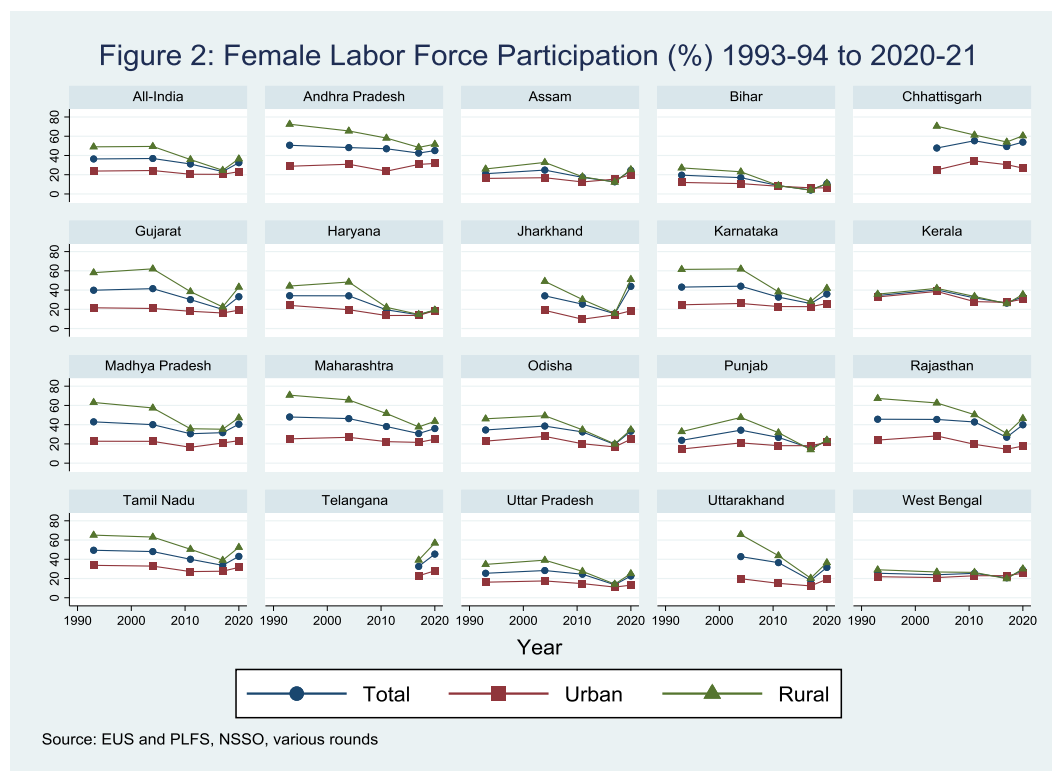
¹ Labour Force Participation refers to individuals who are involved in employment, whether it is paid or for the purpose of gaining profit and have dedicated a specific number of hours during a given timeframe. This includes individuals who were jobless but actively seeking work and those who created goods for their personal use.

A disquieting trend is that female labour force participation in South Asia, in general, and India has been very low, even compared to low-income countries. There is a secular decline in India's female LFPR from 2005 onwards, while that of Bangladesh and Pakistan shows an increasing trend (Figure 1). In fact, female LFPR in India has been lower than in Pakistan since 2014. The observed downward trend in female LFPR developing countries has attracted considerable scholarly attention. Many studies analysed the patterns and determinants across and within countries (Klasen and Pieters, 2012, Klasen, 2019).

Emerging trends in India's FLPR

The phenomenon of declining FLPR in India is termed 'de-feminisation' or 'missing women.' This trend after 2004 is puzzling, especially because India registered an annual average growth rate of 8 per cent during 2004-2009. In many countries decline in fertility rates corresponded with increased female LFPR. On the contrary, in India, female LFPR declined at a time when fertility rates declined steadily from 3.1 in 2000 to 2.6 in 2011 (Kapos et al., 2014). Further, the decline coincides with enacting a large-scale public programme promoting employment in rural areas (Mahatma Gandhi National Rural Employment Guarantee Act, (MGNREGA)) 2005. Several scholars have put forth various explanations for the observed phenomenon. Some studies argued that declining female LFPR could result from increased female enrolment in education (Rangarajan et al., 2011). The other explanations include agricultural stagnation and the slowdown of the rural economy (Kannan and Raveendran, 2012), the reversal of the exceptional increase in female labour supply caused by agrarian distress and the mechanisation of agriculture (Abraham, 2009, Klasen and Pieters, 2012, Thomas, 2012, Siddique et al, 2017) and increased general income levels leading to U shaped curve in female LFPR (Abraham, 2012; Mehrotra and Parida, 2017).

As depicted in Figure 2, there has been a consistent and noteworthy decline in the female labour force participation rate (LFPR) in India. Starting at 36.9 per cent in 2004-05, the rate declined to 31 per cent in 2011-12 and dropped to 23.3 per cent in 2017-18. This decline can be attributed mainly to a decrease in female LFPR in rural areas, which accounted for a significant portion of the overall decline. The decline in rural areas stood at 15 per cent, while in urban areas, it was lower at 4 per cent (Figure-2).



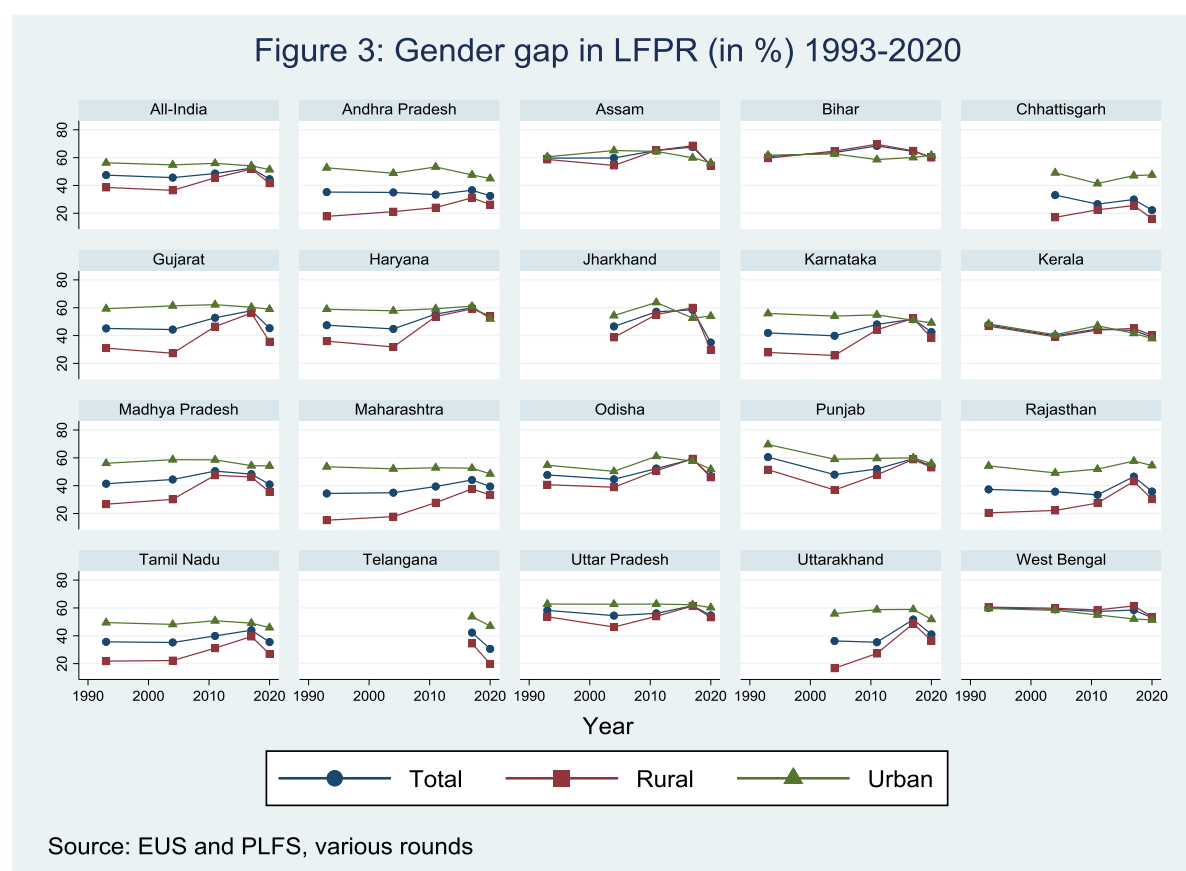
It is crucial to highlight, however, that there has been a notable reversal in the trend of female LFPR since 2018-19. During the period from 2017-18 to 2020-21, the LFPR among women increased from 23.3 per cent to 32.5 per cent, marking a substantial nine per cent rise. This increase is accompanied by a 12 per cent increase in rural areas and a 3 per cent increase in urban areas. This upward shift in LFPR could potentially indicate employment driven by distress, as previous studies have indicated a rise in labour supply among rural women during periods of agrarian distress.

Previous research has provided insights into India's overall declining female LFPR trend. However, it is essential to acknowledge the significant heterogeneity across states regarding female LFPR. From 2004 to 2017, certain states such as Gujarat, Jharkhand, Madhya Pradesh, Maharashtra, Odisha, Punjab, Rajasthan, and Uttarakhand experienced a more pronounced decline in female LFPR compared to the national average. In contrast, Chhattisgarh was the only state to witness increased female LFPR during this period. West Bengal, Andhra Pradesh, and Madhya Pradesh exhibited a slower decline. Furthermore, the decline in female LFPR aligns with national trends and is predominantly driven by rural areas.

When considering the level of female LFPR across states, it does not appear to follow a U-shaped curve, as poorer states like Bihar, Assam, Odisha, and Uttar Pradesh exhibit relatively

lower levels of LFPR. In 2020, Chhattisgarh had the highest level of female LFPR at 53%, followed by Andhra Pradesh, Telangana, and Tamil Nadu. It is clear from Figure 2 that there is no definite trend with the level of per-capita income of the states. All the states have shown an increase in female LFPR after 2017. The increase is found to be highest in Jharkhand, followed by Orissa Uttarakhand and Gujarat.

Figure 2 shows high rural-urban differences in female LFPR across states. In 2004-05, female LFPR in rural areas was 25 per cent higher than in urban areas, which declined to 4.2 per cent in 2017-18 and increased to 13.3 per cent in 2020-21. Chhattisgarh, Uttarakhand, Gujarat, Madhya Pradesh, Maharashtra, and Andhra Pradesh show more than 30 per cent difference between rural and urban areas. Though the gap declined significantly in 2020-21, Chhattisgarh, Jharkhand, Rajasthan, and Telangana show double the gap at the national average. Interestingly, Kerala shows very low rural-urban disparities in female LFPR throughout the period under consideration, followed by West Bengal, Bihar, Assam, Haryana, and Punjab (Figure-3).



A thorough empirical analysis is required to understand the factors driving the recent improvement in India's LFPR. The current aggregate trends do not provide a clear indication

of whether this increase is a result of ongoing structural changes, such as declining fertility rates and improved women's education, or if it is driven by distress-related employment, as observed during the period from 1993-94 to 2004-05. The initial evidence suggests that the rise in female LFPR may be attributed to distress-driven employment, as women in rural areas enter the workforce during a period of economic sluggishness.

Although India has seen improvements in female LFPR, it remains significantly lower than male participation (57.5 per cent). About 70 per cent of Indian women of working age are currently not part of the labour force. The gender gaps in LFPR could adversely affect overall women's empowerment. Figure 3 shows the gender gaps in LFPR. The decline in female LFPR during 2004-2027, especially in rural areas, increased the gender gaps. It is evident from Figure 3 that the states that have experienced a faster decline in female LFPR in rural areas witnessed rising gender gaps and vice-versa. Further, improvement in female LFPR in rural areas from 2017 led to declining gender gaps in all the states. A gradual decline in gender gaps is evident only in West Bengal and Kerala. In the case of gender gaps in urban areas, many states showed no significant decline.

Behind the increase in female LFPR in Kerala

In what follows, we analyse the disaggregate trends in female LFPR across income and educational categories to understand the composition of recent improvements in female LFPR. We compare Kerala's performance with All India trends. We have considered Kerala for disaggregate analysis for the following reasons. First, the female LFPR in Kerala can be identified in two distinct phases, notwithstanding the recent trends. These phases are characterised by 1993-94 to 2004-05 and the period after 2004-05 to 2017-18. Prior to 2004-05, the urban labour market in Kerala had significant aspects, such as a high rate of female participation in the workforce but a low level of employment, leading to a substantial increase in unemployment. Among the highly educated individuals, the participation rate ranged from 70 to 80 per cent, like rates observed in developed countries, and more than double the average rate in the rest of the country (Mathew, 2018). In the second phase, as observed in many other states, Kerala also experienced a decline in female LFPR in Kerala (Thomas and Shyjan, 2022). However, declined below the national average, making the state one of the low females LFPR. Nevertheless, the decrease in Kerala was more significant compared to the average decline at the national level. Specifically, the decline in Kerala was

from 33 per cent to 25 per cent, while the national average declined from 20.4 per cent to 17.8 per cent, from 2004-05 to 2011-12.

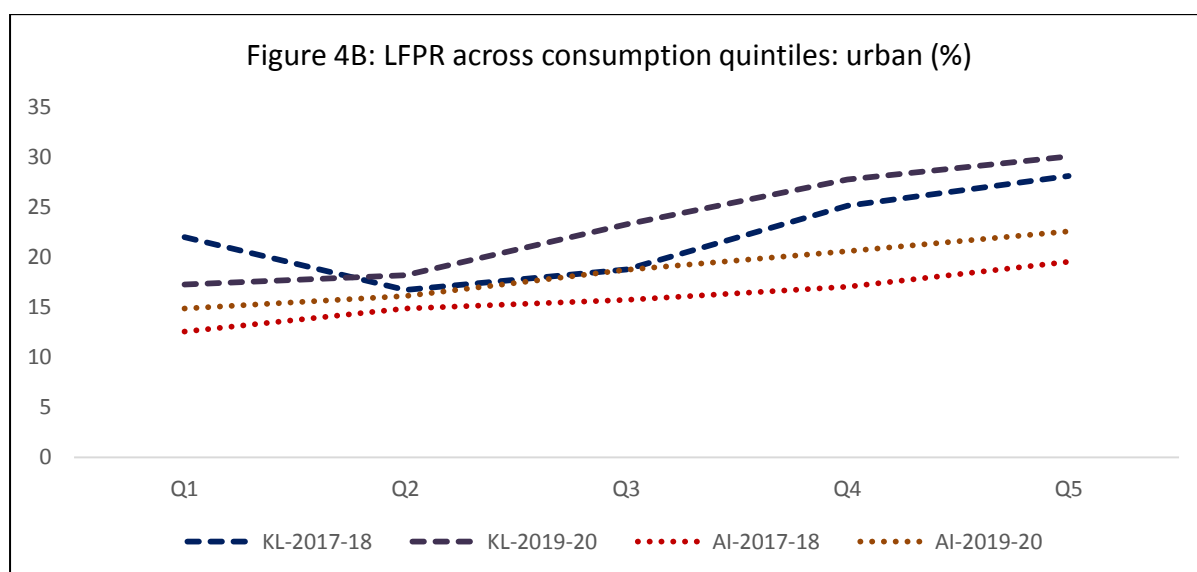
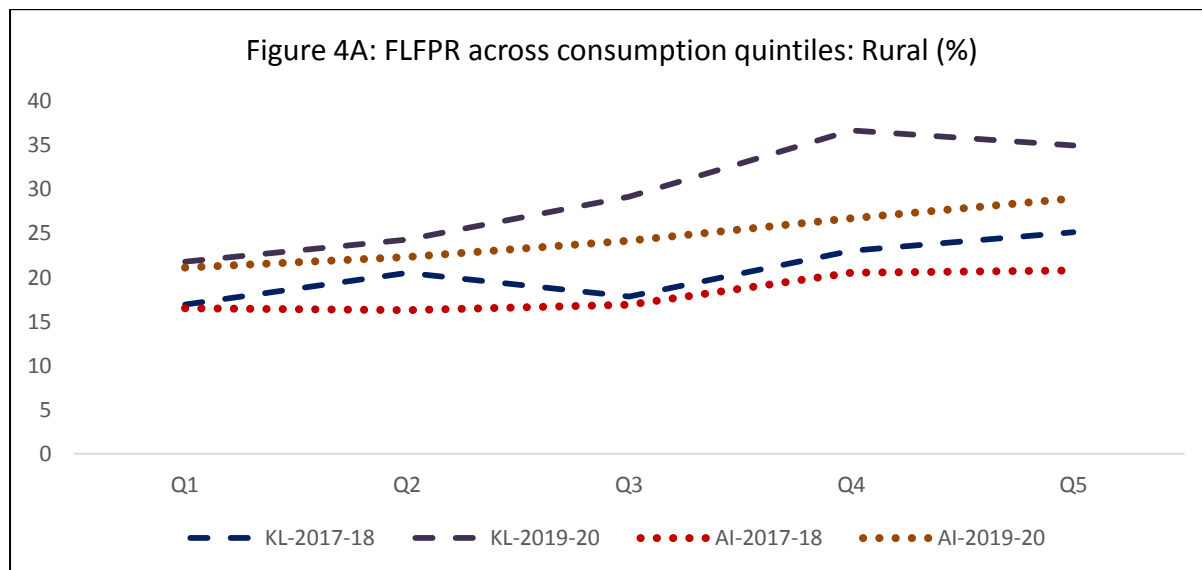
Second, Kerala makes an interesting case because of its historical advantages of high female education and human development. One would expect that these socio-demographic advances created an environment conducive to women's entry into the paid activities in the market on a considerable scale. Since educated women participate in the labour force in Kerala, the decline after 2004-05 is puzzling.

Income status

Figure 4 displays the female LFPR across different consumption quintiles, with Panel A showing rural areas and Panel B showing urban areas. To ensure accurate comparisons, we analyse the trends in 2017-18 and 2019-20, as the year 2020-21 may have been influenced by abnormal conditions caused by the pandemic. Contrary to the findings of previous studies, the trends do not demonstrate a clear U-shaped pattern indicating the feminisation of work. In the lowest quantile, both Kerala and the entirety of India exhibit similar levels of female LFPR. However, as income increases, there is a consistent rise in female LFPR at the national level for both years analysed. Notably, this increase is more pronounced in higher quintiles during 2019-20. Interestingly, Kerala does not show a linear progression in female LFPR as we move from lower to higher consumption groups. In 2017-18, there are indications of a U-shaped relationship with income quintiles, as female LFPR declined for the third quintile and increased afterwards. Moreover, as noted in previous studies at higher income quintiles, Kerala boasts significantly higher female LFPR than the entire country. The gap is particularly prominent in the fourth income quintile, reaching nearly 10 percentage points.

Between 2017-18 and 2019-20, there was an overall rise in female labour force participation rate (LFPR) across all quintiles, particularly in the higher quintiles in Kerala. In urban India (as shown in Figure 4, panel B), Kerala consistently displays higher female LFPR across all income quintiles compared to the national average, and this gap widens in the higher income quintiles. Interestingly, even urban areas in Kerala exhibit a U-shaped curve in 2017-18, while such a trend is not observed for India. It is worth noting that in 2019-20, female LFPR decreased in the lowest income quintiles in Kerala but increased in higher income quintiles. Both in rural and urban areas, the highest increase in female LFPR is observed in the middle-income quintiles, which contrasts with previous studies. Previous research emphasized a U-shaped curve for the national average, but Kerala did not exhibit a clear pattern (Mathew,

2018). In 2017-18, there is a reversal of this trend, indicating changing dynamics in the female labour market (Figure-4A, 4B).



Source: Authors' calculation based on PLFS, various rounds

Education status

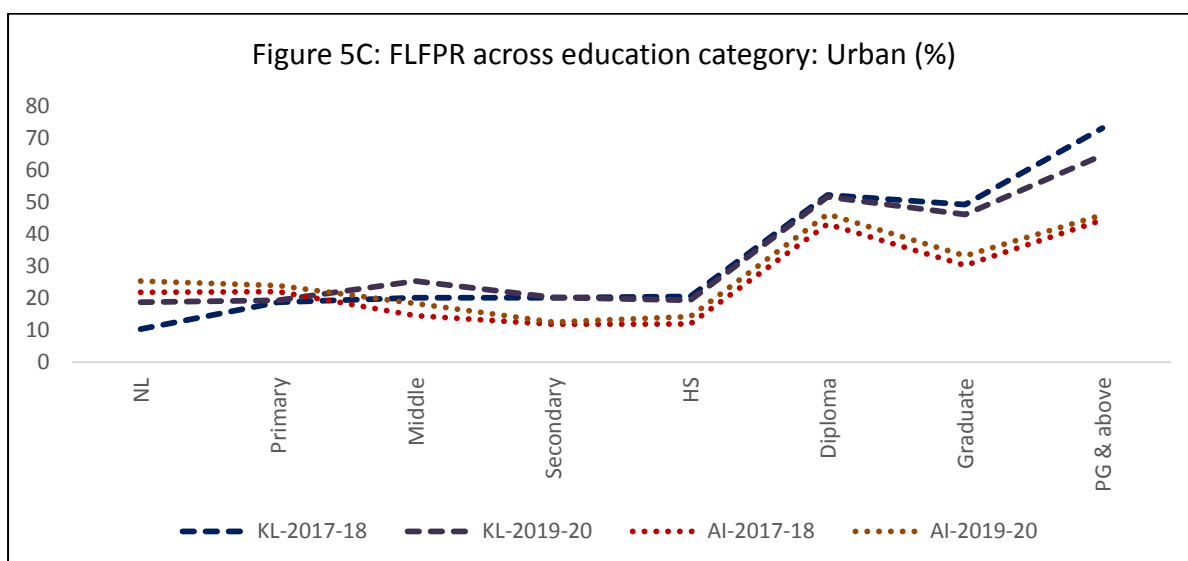
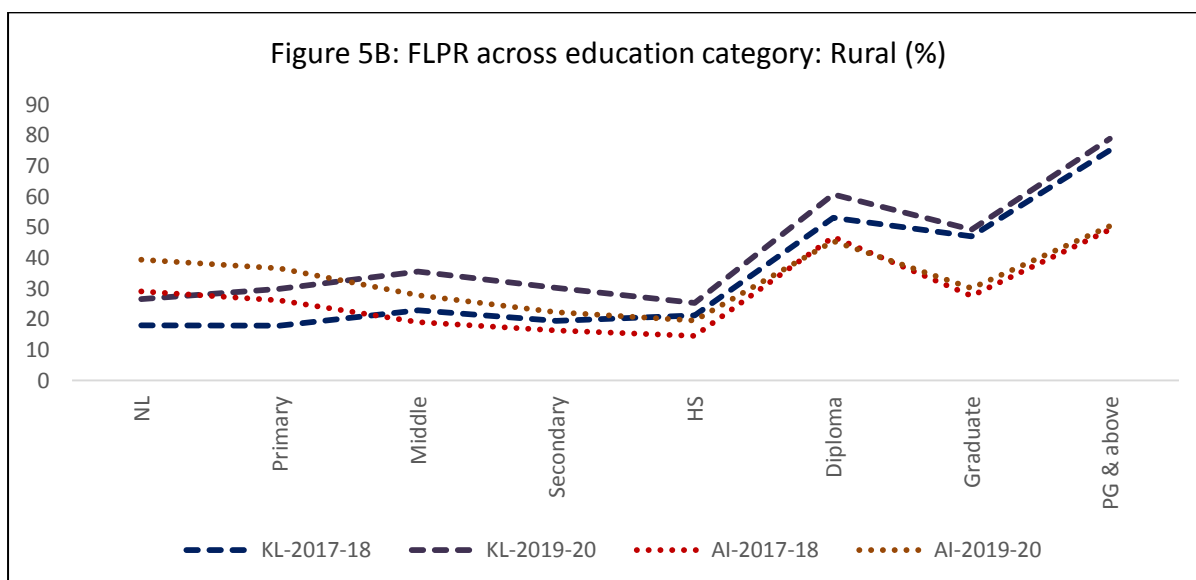
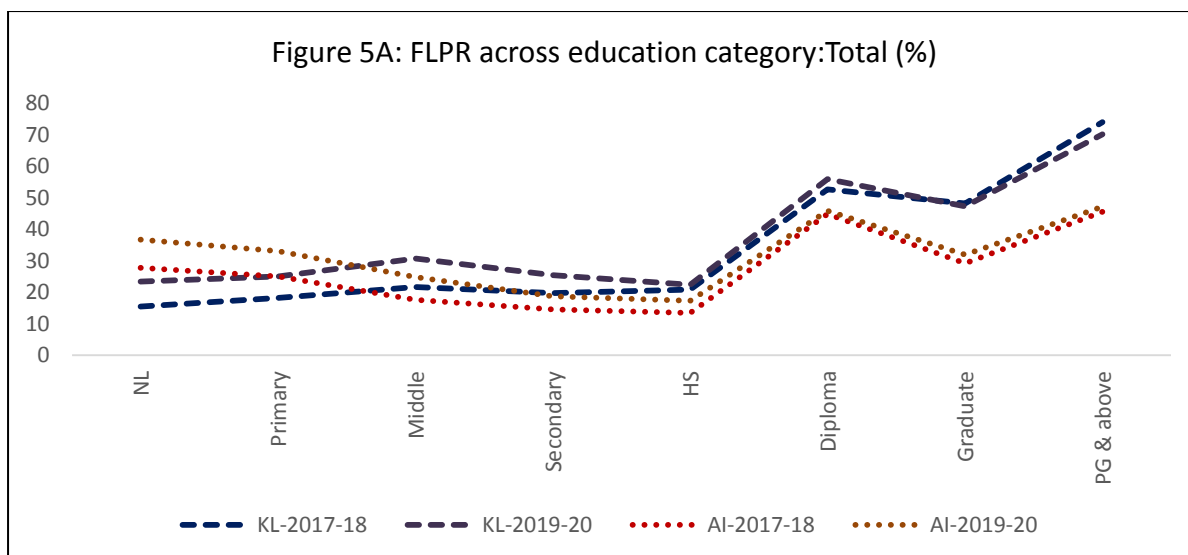
The literature on female FLPR emphasised that education plays crucial in women's work. Hence, we analyse the trends in female FLPR by the level of educational attainment in urban India and Kerala. In the case of India as a whole, both years demonstrate a U-shaped relationship with educational achievement, except for a significant rise in the labour force of individuals holding diplomas or certificates. This trend is consistent across rural and urban areas in India. Much of the increase in female LFPR for among the people with lower levels

of education, as there is a significant rise in LFPR for people with a diploma and above. Further, this rise is higher in rural and urban areas (Figure 5). The increase in female LFPR at lower levels of education, especially in rural areas, indicates distress-driven migration. As the previous studies highlighted, women at low income join the labour force to support their family income.

The dynamics of female LFPR in Kerala exhibit a higher level of complexity compared to the national average. Notably, there are significant variations in the changes observed in employment and participation patterns, as illustrated in Figures 5A, 5B, and 5C. The following trends deserve attention and discussion.

First, the female LFPR in Kerala is lower than the national average at lower levels of education but significantly higher at higher levels of education. For instance, the participation rate among post-graduate females in Kerala was approximately 70 per cent, which is comparable to rates observed in developed countries in East Asia, Iceland, and Denmark. This finding aligns with the existing literature, which highlights the higher educational attainment and labour force participation rates among women in Kerala compared to the national average. The disparity in female LFPR between all-India and Kerala is particularly notable for individuals with post-graduate and above qualifications, with a difference of nearly 25 per cent.

Second, in line with the national trend, a significant portion of the increase in participation rates in Kerala occurred among individuals with lower levels of education, particularly in rural areas. However, it is important to note that there has been a decline in participation among individuals with post-graduate degrees in urban areas of Kerala. Specifically, the participation rate for this group decreased from 73 per cent in 2017-18 to 64.7 per cent in 2019-20. In contrast, at the national level, there was a marginal increase from 44 per cent to 46 per cent during the same period. These trends highlight the complex interplay of education, rural-urban dynamics, and the overall context of female labour force participation in Kerala. They reflect the changing patterns and challenges faced by highly educated women in urban areas of Kerala. Given the increasing proportion of higher educated women in Kerala and this state's record of high labour force participation among educated women, this substantial drop in female participation needs a detailed examination (Figure-5A, 5B & 5C).



Source: Authors' calculation based on PLFS, various rounds

Conclusion and the way forward

India stands at one of the lowest in terms of FLFPR compared to its contemporaries. Moreover, the declining female LFPR in India, especially after 2004, when India's fertility rate was declining, and the economy was on a high growth trajectory, has attracted considerable attraction. There is no unanimity in the literature on the reasons behind the observed decline, ranging from an increase in female enrolment in education, higher level of income and the discouraged worker effect.

This study analyses the trends and patterns of female LFPR from 1993-94 through 2020-21 and shows a trend reversal in all the states, though with varied intensity. Contrary to the famous thesis on U-shaped feminisation of work, a cross-sectional analysis of female LFPR did not exhibit such a relationship since many low-income states such as Bihar, Assam, and Madhya Pradesh have very low levels of LFPR. The rural areas mainly drive the increase in female participation in the labour force, whereas urban areas did not exhibit a strong trend reversal. The trends are indicative of distress-driven employment as the rural women who withdrew from the labour force from 2004 to 2017 started joining the labour force. This could be partly attributed to the ongoing job crisis and slow-down in the economy.

Among other states, Kerala makes a critical case given its high female literary and human development. Kerala maintained a higher FLFPR than the national average till 2004 and a decline after that to become one of the states with low female LFPR in 2017, followed by an increase. A disaggregate analysis of trends in FLFPR across consumption quintiles and education categories in Kerala revealed exciting trends in the composition of an increase in female labour participation. The state has shown an increase of FLFPR in the higher quintiles in rural areas, while in the urban areas, there was an increase in the middle quintiles. With respect to education categories, a faster increase in labour participation in lower education groups and a decline at post-graduate and above shows the nature of changes in the labor market in Kerala that are distinct from national average, where there is a marginal increase in female LFPR at higher educational groups.

It is essential to determine the causes of this latest increase in the FLFPR. If it is, in fact, due to the rural and agrarian distress, then the contribution of the urban sector towards the same will be overshadowed. This is already visible with the higher FLFPR among the lower levels of education, while a drop is seen among the graduates in Kerala. The changing dynamics of

the FLFPR, especially that of the urban sector, must be focused on to bring a balanced outcome.

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