

The States' Narrative on Women's Work in India

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Abstract

For India to be a developed country by 2047, narrowing the gender gap in labour markets is indispensable. While global evidence points to the fact that narrowing the gender gaps in labour markets has economic benefits, the disaggregated level at the sub-national level and the sectoral level is unclear. For a country like India that has almost 45 percent of the population working in agriculture, but 55 percent of the GDP emanating from the services industry, it is crucial to examine how narrowing the gender gap across the sectoral and state level could boost India's growth. This policy brief provides an overall narrative on the prevailing gender gaps at the state and sectoral level in India over the last five years, and prescribes the way forward for India by analysing how narrowing the gender gap at the sectoral and state level can be a catalytic force in boosting India's economic growth

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The States' Narrative on Women's Work in India

Cledwyn Fernandez, Shabana Mitra, Anjhana Ramesh and Havishaye Puri

For India to be a developed country by 2047, narrowing the gender gap in labour markets is indispensable. A recent study by the National Family Health Survey concluded that despite constituting close to 48 per cent of the population, women contribute to only 18 per cent of economic growth.¹ The McKinsey Global Institute estimated that if women's participation in the workforce matches that of men, it would lead to an overall gain of USD 2.9 trillion.²

The Global Gender Gap Report 2024 states that among the various sub-indicators that constitute gender gaps, the second-largest gap to bridge is *Economic Participation and Opportunity*. Across 146 economies, India is one of the poorest performing economies under this specific sub-category. The low participation of women in the workforce and the widening gender divide has damaging consequences for economic growth. In India the gender gap in labour force participation rate is at 37.1 pp, which has seen an improvement over the last few years.³

Achieving the target of economic growth and gender parity in a diverse nation like India requires a multi-pronged focus. Macroeconomic policy has to be constituted at the both at the national level and also the state-specific policies to meet the different needs to the various states. So, we examine the association between gender gaps in labour force participation rate (LFPR) and economic growth at the state level for the Indian economy. The state-level disaggregation provides important insights that help identify states that have the largest gender gaps and have the potential to improve economic growth. The temporal analysis of these trends also identifies best practices among states that have seen the largest improvements in female labour force participation in the last 5 years. Certain states in India have designed women-centric policies to bridge the gender divide in labour force participation, and have witnessed improvements in economic growth. These states can act as benchmarks for other states to follow, so as to improve the

Key Findings

1. Female labour force participation has increased in India over the last 5 years. The increase has mostly happened in agriculture.
2. Now there is a greater proportion of women (of the entire female labour force) who are engaged in self-employed work than men who are self-employed, implying a negative gender gap in this sector
3. Other than the manufacturing industry, top industries contributing to economic growth have witnessed a decline in the gender gap in labour force participation
4. Among the states that contribute the highest to India's economic growth, Tamil Nadu demonstrates a low gender gap across industries, while Uttar Pradesh consistently has a high gender gap across all industries.

¹ [Economic Times](#)

² [McKinsey Global Institute](#)

³ [Annual Report, PLFS:2023-24](#)

overall economic growth in the country. Furthermore, we cut the data using two other classifications. First, we examine the gender wage gap industry and secondly, we look at the gender wage gap by the type of occupations, across industries. Lastly, since none of these variations are uniform across the states of India, we see the differences in performance of the states across industries or by type of occupation. Finally, we provide a list of recommendations that are useful for states, industries, and policymakers to bridge the gender gap in LFPR with an aim to push India's economy to a higher income stratum.

1. 5 Year snapshot of Gender Gap at the National level

Over that last 5 years there has been a significant reduction in the gap between labour force participation for men and women, mainly due to women increasingly joining the workforce during COVID-19 pandemic and then continuing to work post the crisis as well. This gender gap in LFPR has seen a downward trend since 2017-18, which recorded a gender gap of 52 pp in rural India, and 54 pp in Urban India in 2017-18. This statistic has reduced to 39 pp in Rural India and 49 pp in Urban India as of 2023-24. The gender gap in LFPR has consistently been higher in urban India than rural India, with the gap widening over the years. This implies that the rural economy has contributed widely in reducing the gender gap in labour force participation in India (see Figure 1). As of 2023-24, 47.6% of female aged 15 years & above in rural areas are participating in labour force, as against 80.2% male. For urban areas, this gap is even wider, with only 28% females aged 15 years & above participating in the labour force as compared to 75.6% men.⁴

Working Definitions

The **gender wage gap** is defined as the difference between male and female wages as a proportion of male wages. For example, if men earn 100, while women earn 80, the gender wage gap is 20 percent $[(100-80)/80]$, implying that women earn 20 percent less than men.

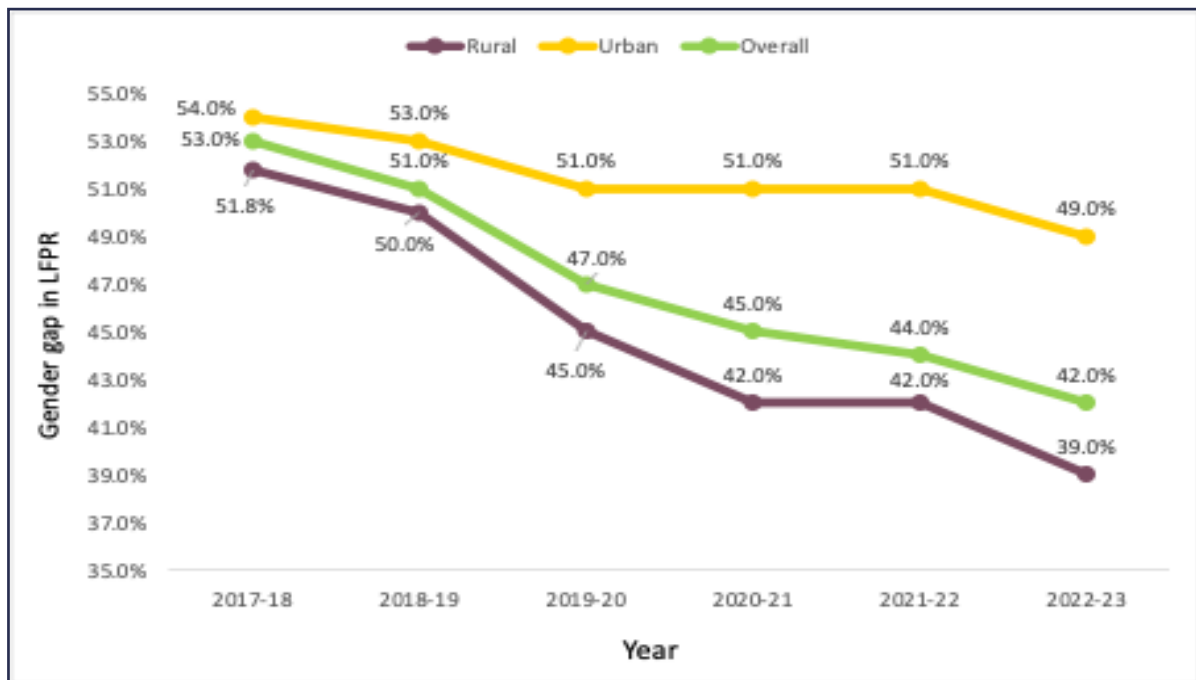
The PLFS records employment in three categories, namely,

- (a) self-employment,
- (b) casual labour, and
- (c) regular salaried.

Self-employed individuals are those who operate their own farm or non-farm enterprises or are engaged independently in a profession or trade on own-account or with one or a few partners. Furthermore, the self-employed category is divided into (a) own-account workers, (b) employers, (c) helpers in household. **Regular salaried** workers are persons working in other's farm or non-farm enterprises (both household and non-household) and getting in return salary or wages on a regular basis (and not on the basis of daily or periodic renewal of work contract). Lastly, a person casually engaged in other's farm or non-farm enterprises (both household and non-household) and getting in return wage according to the terms of the daily or periodic work contract is a **casual wage labour**.

⁴ We use data from The Periodic Labour Force Survey (PLFS), conducted by the National Sample Service Organization (NSSO). The PLFS survey is an annual survey that collects and summarizes data on key labour market statistics in India. The first round of the survey was conducted in 2017-18.

Figure 1: Gender Gap in Labour Force Participation Rate in India over time.



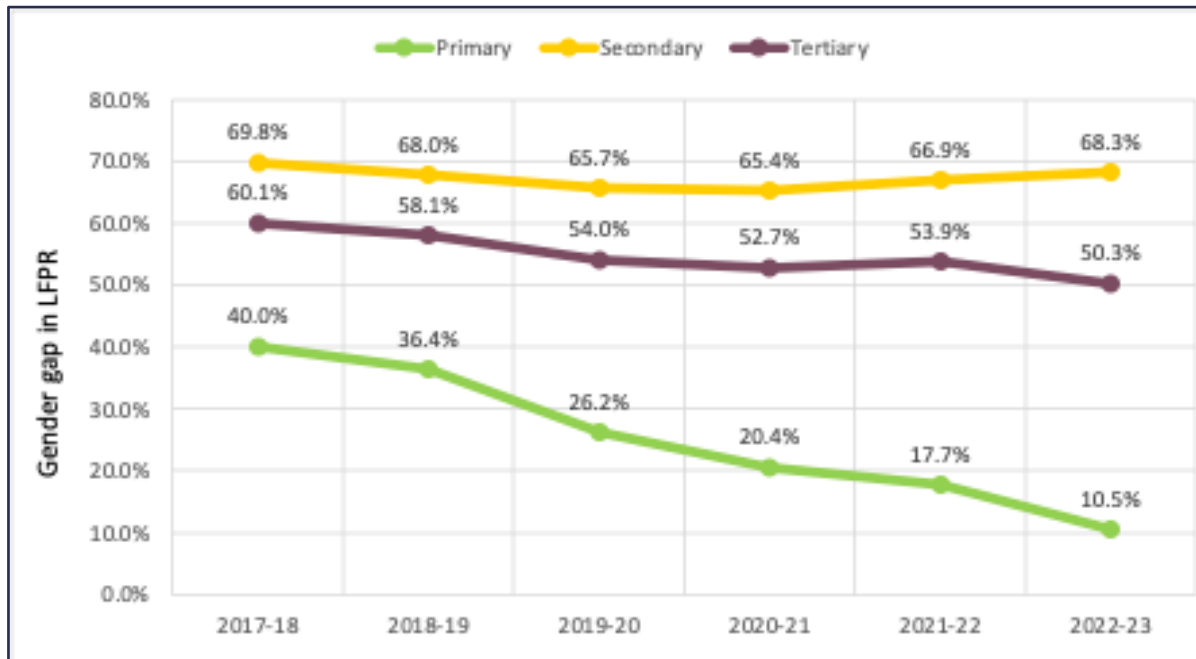
Source: Authors calculations from PLFS Annual report.

About one-third of all working women in India were engaged in agriculture in 2017-2018. Over the last five years, the overall number of women working has increased, but what is surprising is that the number of women working in agriculture has increased disproportionately to the sectors, with 44.7 percent of the working women participating in agriculture in 2023-24.

Therefore, while more females are joining the labour force, they are mostly occupied with low-productive rural jobs in the agricultural sector. In 2022-23, the gender gap at the industry level is the highest for the secondary sector at nearly 70 pp, and the lowest for the agricultural sector at nearly 10 pp and has been declining over the years. Figure 2 illustrates the gender gap in LFPR across all industry levels. It is seen that the gender gap in LFPR has increased in the secondary sector and has reduced significantly in the primary sector. For the tertiary sector, the gender gap has slightly reduced from 60 pp to 50 pp. For the secondary sector, the gap has slightly increased post-Covid. This could possibly be due to the fact that the proportion of men joining the secondary sector is higher than the proportion of women joining, thereby causing the gap to widen. Moreover, post-Covid, the proportion of females entering the agricultural sector has increased, due to which the gender gap has seen a decline. Possible reasons that explain this trend is the lack of education, skills, and income that has led women to enter the agricultural sector, but remain absent in the tertiary and secondary sector (Mehrotra and Sinha, 2017). This has led to the declining trend in gender gaps in rural India, but a large gap that looms in urban India (Klasen and Pieters, 2015). The lack of appropriate skill training is evident from the fact that while 36.1% of men in the labour force have received

any sort of formal training, only 18.6% of women have received formal training.⁵ Thus, the large gender gap in training is a crucial reason that pulls back women's participation.⁶ Furthermore, the lack of care infrastructure coupled with the need to pursue higher education are two most important reasons that restrict females from entering the labour force in the urban market. All of these factors combined can help provide an explanation to why we see a declining trend in rural India, but not so much in urban India.

Figure 2: Gender Gap in Labour Force Participation Rate across sectors in India over time.



Source: Authors calculations from PLFS

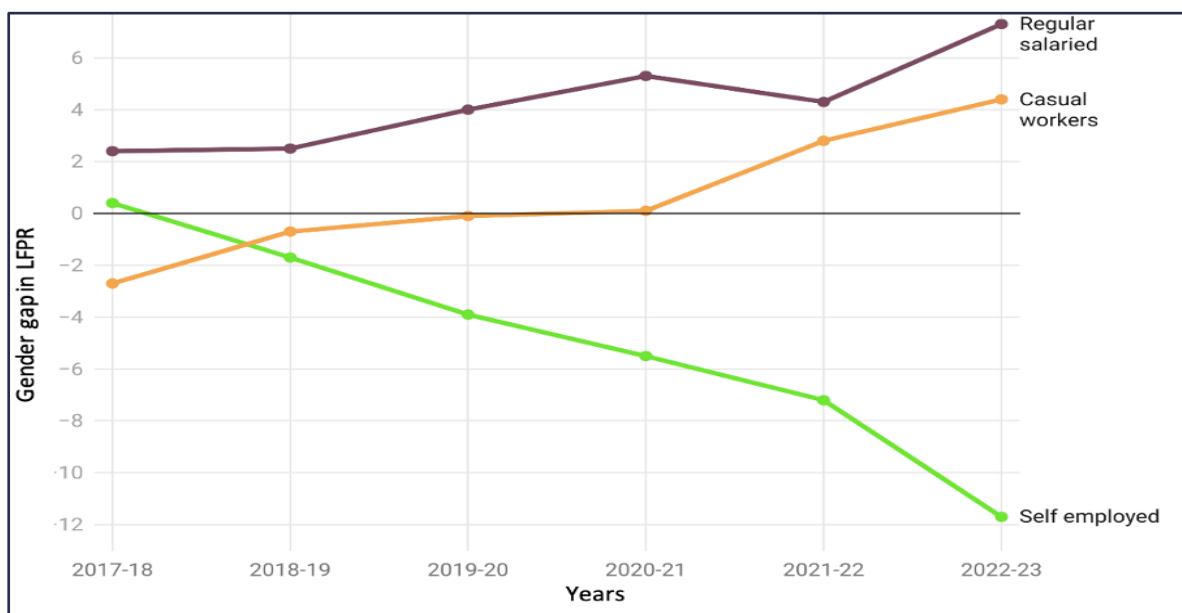
One way of thinking of the quality of jobs that women are doing is to see if they have salaried employment or not. Salaried employment guarantees regular payment and a secure form of employment. For this reason, the sectoral description provided above needs to be seen through a cut of data-based type of employment. We see a structural shift in the occupations for women, moving from regular salaried and casual workers towards self-employment, while there is no change in the occupational choices of men. The gender gap in LFPR across the different employment statuses provides an overview of the nature of work that is distributed across both genders. Figure 3 illustrates the gender gap in LFPR across the three different employment types. The number shows the difference in the proportion men and women working in a particular type of employment. In 2023-24, a higher percentage of women work as self-employed workers than men. 12% additional women (of all working women) are self-employed than men. In 2017-18, the gender gap was close to zero percent for self-employed workers, which declined to (-12%) by 2022-23 implying that there are more women than men working in the self-employment category. For the other two types of work, casual wage labour

⁵ Annual Report, PLFS (2022-23)

⁶ *ibid*

and regular salaried work, from 2017-18 to 2022-23, we see an increase in the gender gap in LFPR. During this period, there was a significant influx of women into the self-employment category, while the proportion of men working in this category remained stagnant. The reduction in the gender gap in the self-employed category is attributed to the increasing contribution of women working as unpaid family labourers in agricultural farms. Conversely, in 2017-18, the gender gap was negative for casual workers as a higher percentage of women were working as casual workers, compared to men. However, over time, the proportion of women working as casual workers declined drastically, thereby increasing the gender gap. For instance, in 2017-18, while FLPR among casual workers was 27%, the same number declined to 17% in 2022-23. Much of this decline came from rural India, where FLPR among casual workers declined from 31% in 2017-18 to 19% in 2022-23. The exodus of women as casual workers in rural India, followed by the increased participation as self-employed individuals gives us an explanation to why gender gaps increased among casual laborers, but declined among self-employed.

Figure 3: Gender Gap in Labour Force Participation Rate across employment in India over time.



Source: Authors calculations from PLFS Annual report

2. States' growth narratives and women's work

At the national level, the economy has been growing and the female labour force participation has also been increasing. Therefore, can we say that our growth story is also gendered. Not

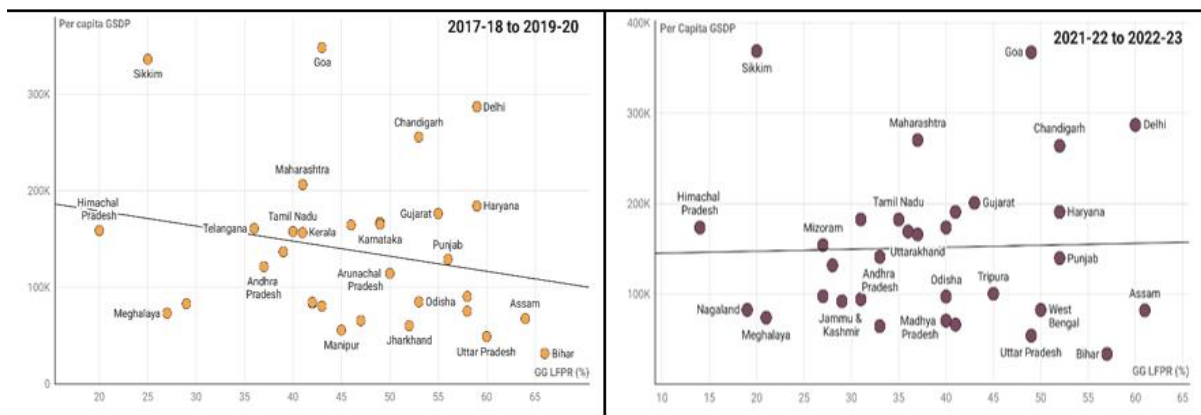


so much, if we see that agriculture is where most women are working, but agriculture’s contribution to overall GDP has been falling in this period. Therefore, are women working in the slow growing sectors? In a country as diversified as India, the national narrative sometimes removes the complexities of the state stories. Therefore, to unpack the growth and FLPR story, we now move from the national narrative to that state narratives. We again track data from 2017-18 to 2022-23, and see that COVID-19 created a systematic shift in work force and so we examine the trends pre and post pandemic separately.

Observation 1: There is a negative correlation between per capita GSDP and gender gap in labour force participation.

We observe a strong negative relationship between gender gaps in LFPR and per-capita GSDP for the pre-covid years (figure 4). This corroborates with global evidence across both developed and developing economies that show that countries with the highest gender gap in labour force participation perform the poorest on the economic front. Much of the eastern states, including, West Bengal, Jharkhand, Assam, Bihar, and Odisha exhibit a high gender gap in LFPR along with a low per-capita GSDP. On the contrary, the northern states like Delhi, Punjab, Chandigarh, and Haryana demonstrate high gender gaps in labour force, along with high per capita GSDP. The states with significant lower gender gaps in LFPR, but high per capita GSDP are southern states of Tamil Nadu, Kerala, Maharashtra, and Goa.

Figure 4: Association between gender gap in LFPR and per capita GSDP



From the years 2021-22 to 2022-23, the negative association begins to weaken (figure 4). One possible reason for this is that post-covid, while the overall gender gap in LFPR has decreased, the gender gap in the secondary sector has increased. Since the manufacturing industry (part of secondary sector) contributes close to 18% of India’s Gross Value Added (GVA), and the gender gap in this sector witnessed an increase post Covid, it reflects a positive association between the two.

One reason that could possibly explain the change in trend pattern pre and post covid is the high influx of women that entered the agricultural sector post covid. The agricultural sector contribution to GDP fell post covid, while the contribution from the secondary and tertiary

sector increased. Thus, the post-covid era displayed a positive association between gender gap in LFPR and economic growth, as the growth drivers of the economy exhibited larger gender gaps.

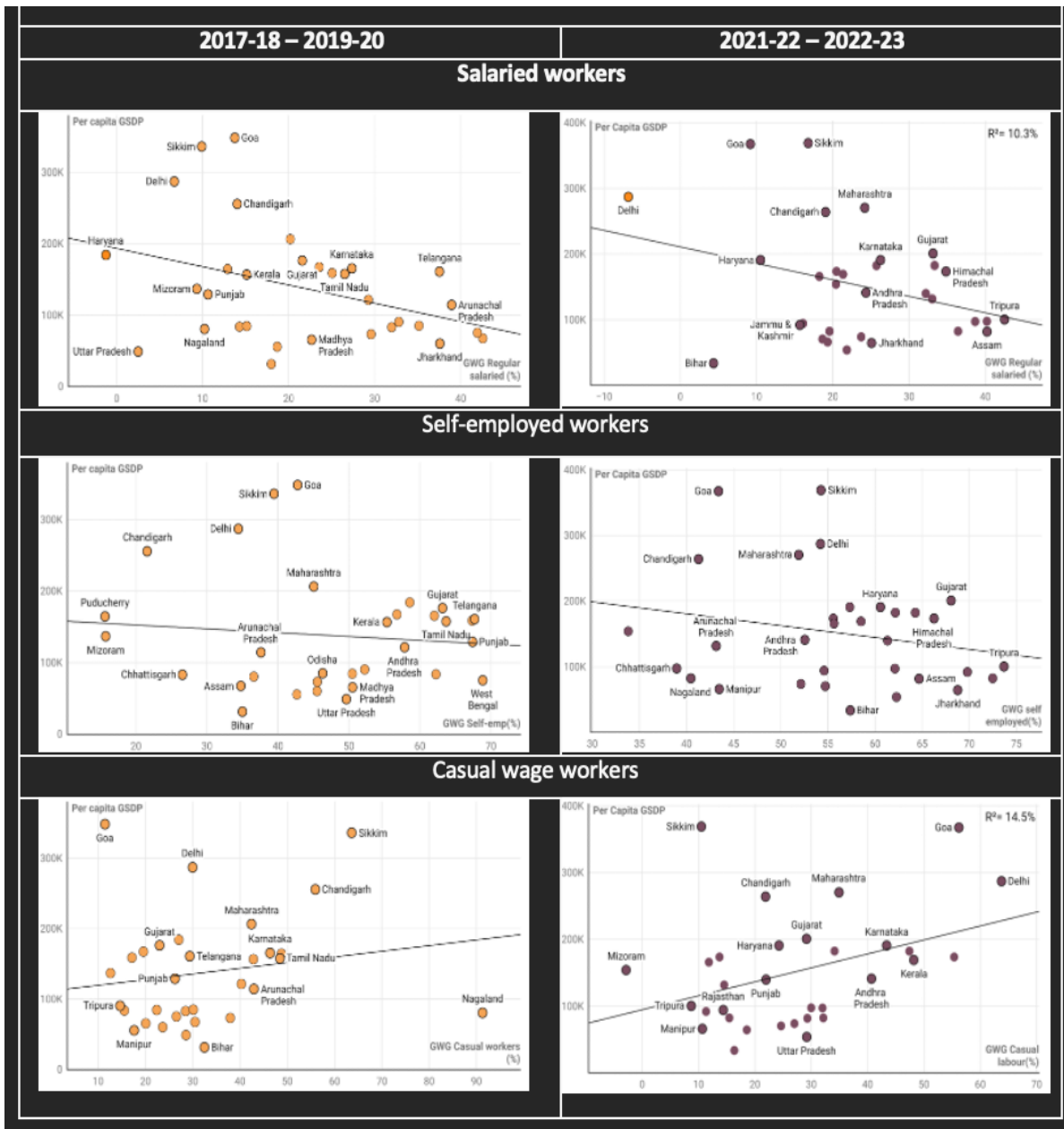
The state-wise stories provide an interesting narrative too. Two states stand out in this regard. Delhi is a state that exhibits high gender gap in LFPR along with high per capita GSDP. On the contrary, Andhra Pradesh is a state exhibiting low gender gap in labour force participation along with low per capita GSDP. One reason that explains Delhi's story is the fact that almost 84.3% of the state's GDP is coming from services alone (a sector which exhibits a high gender gap). Conversely, for Andhra Pradesh, the sectoral wise contribution is approximately equal across the primary, secondary, and tertiary sector. Therefore, sectoral contributions to economic growth, coupled with the gender gap in each sector plays a crucial role in determining the association between gender gaps in labour force participation and economic growth. In an ideal state, one would expect most states to be clustered above the trend line and to the top-left quadrant where gender gap is low and per capita GSDP is high.

Observation 2: There is a negative association between gender wage gaps and per capita GSDP across regular salaried workers, however, the association is positive across casual and self-employed workers.

Figure 5 illustrates the relationship between per capita GSDP and gender gap in wages across different employment types. The association is assessed across both, pre and post Covid years. For regular salaried workers, there exists a negative association between gender wage gaps and LFPR during both the pre-covid and post-covid years. However, the association becomes stronger post covid (figure 5). For self-employed workers, there exists a weak negative association between gender wage gap in LFPR and per-capita GSDP in the pre-COVID year and it becomes slightly stronger post covid (figure 5).

Lastly, for casual labourers, it is seen that there is a positive association between the gender wage gap and economic growth, for both the periods (pre and post covid). The positive association becomes even stronger during the years post covid (figure 5). One possible explanation for this is the fact that the women representation in casual labour is very low. Majority of the casual labourers work in the secondary sector in India, which is dominated by males, thereby causing the gender wage gap to widen. While the secondary sector contributes extensively to the overall economic growth, the positive association between gender wage gap and per-capita GSDP for casual labourers becomes prominent.

Figure 5: Per-capita GSDP and Gender wage gap in LFPR

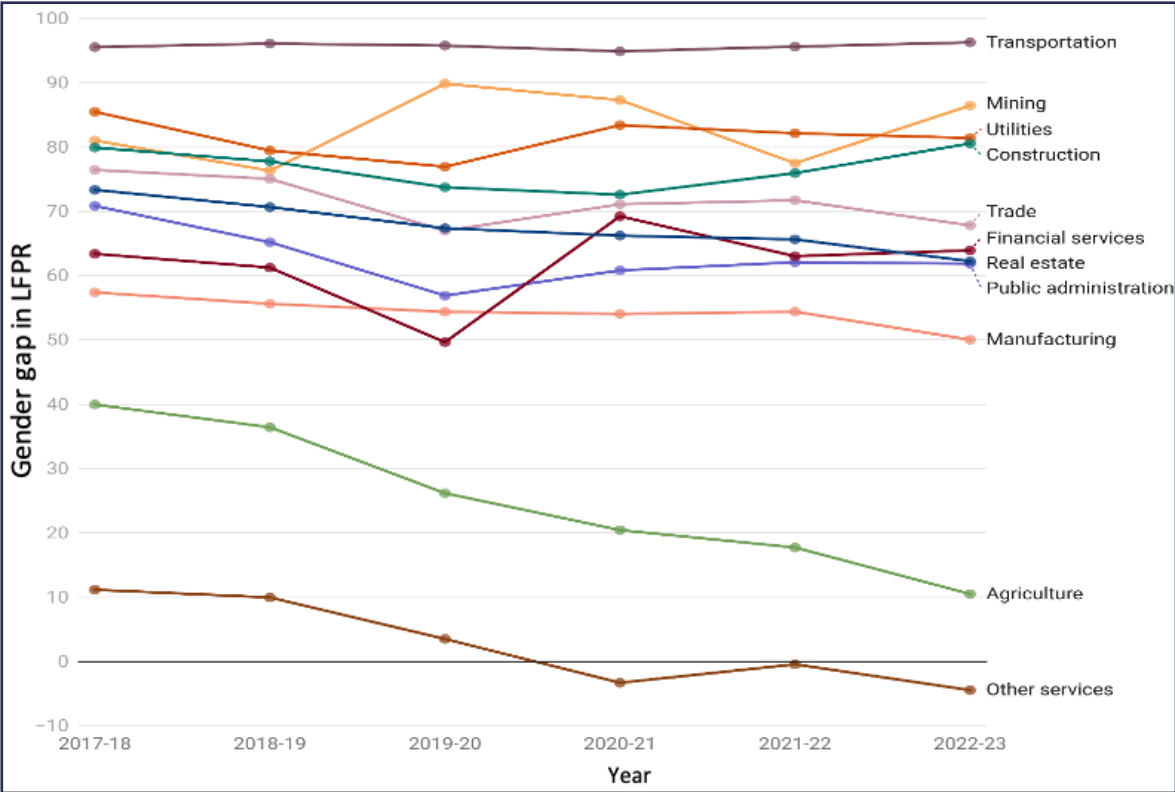


Note: Source: ICRIER's calculations from PLFS Annual report and MoSPI. Average pre-covid gender wage gap is calculated as average of gender wage gaps from 2017-18 till 2019-20. Gender wage gap for a year is $[(\text{Male wage} - \text{Female wage}) / \text{male wage}]$ for that year. Average post-covid gender wage gap is calculated as average of gender wage gaps from 2021-22 till 2022-23. Gender wage gap for a year is $[(\text{Male wage} - \text{Female wage}) / \text{male wage}]$ for that year.

Observation 3: The gender gap in LFPR has consistently been the highest for the transportation sector, and the lowest (negative) for other services (education, healthcare). The gender gap in the agricultural sector has been declining over the years.

Intrinsic biases created due to social norms and sometimes regulations have implied that women have been largely absent from certain sectors (Figure 6). Transportation is one such sector. Even today in India the gender gap in this sector is almost 100 percent implying that only men work in this sector, with a negligible number of women working in transportation. This is despite there being push towards female drives for the pink cabs etc. Other sectors with such biases or regulations include mining and construction where women are employed for very specific roles. Manufacturing has seen a gradual decline in the gender gap which is a positive sign, given the emphasis that the government is providing to the manufacturing sector in India.

Figure 6: Gender gap in LFPR across all sectors in India (2017-18 – 2022-23)



Understanding sectoral employment shares is important as economic growth typically brings with it structural transformation and changes in the underlying comparative advantages of men and women (Herrendorf et al., 2014; Ngai and Petrongolo, 2017). The sectoral gender gaps are crucial as sectoral growths play an important role in the overall economic growth of the country. As of 2022-23, manufacturing contributed to 19 percent of national GVA, while manufacturing, real estate, agriculture and trade together contributed to 60 percent of national GVA.

Figure 6 illustrates the trend in the overall gender gap in LFPR across these industries from 2017-18 to 2022-23. It is seen that in only 2 out of the 12 broad industries, namely, agriculture and other services (education and healthcare) is the gender gap in LFPR less than 50 pp. The gender gap is the largest in the transportation and the mining sector. For construction, the gender gap witnessed a slight reduction from 2017-18 to 2020-21, but consistently increased since then to reach back to 2017-18 levels.

As seen in Figure 6, apart from agriculture, the other sectors have significantly high gender gaps in LFPR. Given that these sectors are growth drivers for the economy, it is important that these industries close the gender gaps in LFPR at the earliest. Closing the gender gaps in these sectors will be essential in boosting overall economic growth for the country.

Figure 7a: Gender gap in LFPR across all industries in India (2017-18 – 2019-20).

	Agriculture	Mining	Manufacturing	Utilities	Construction	Trade	Transportation	Financial services	Real estate	Public administration	Other services
Andhra Pradesh	0.85	0.25	0.39	0.14	0.23	0.41	0.02	0.19	0.09	0.35	1.12
Arunachal Pradesh	0.27	0.00	0.36	0.14	0.04	0.13	0.02	0.12	0.07	0.09	0.38
Assam	0.19	0.34	0.12	0.08	0.04	0.05	0.02	0.14	0.12	0.12	0.62
Bihar	0.12	0.00	0.05	0.05	0.01	0.04	0.00	0.08	0.03	0.06	0.24
Chandigarh	0.15	0.00	0.12	0.06	0.00	0.11	0.17	1.06	0.35	0.16	1.00
Chhattisgarh	0.84	0.03	0.21	0.12	0.31	0.30	0.02	0.16	0.12	0.22	0.99
Delhi	0.26	0.00	0.10	0.02	0.03	0.08	0.03	0.20	0.19	0.20	0.83
Goa	0.88	0.03	0.22	0.02	0.02	0.26	0.11	0.70	0.25	0.38	1.80
Gujarat	0.46	0.03	0.18	0.02	0.11	0.09	0.02	0.36	0.15	0.28	0.74
Haryana	0.31	0.00	0.09	0.03	0.04	0.07	0.03	0.11	0.13	0.11	0.93
Himachal Pradesh	1.80	0.00	0.16	0.07	0.13	0.13	0.02	0.20	0.13	0.22	0.96
Jammu & Kashmir	1.17	0.01	0.37	0.03	0.01	0.03	0.00	0.15	0.14	0.14	0.71
Jharkhand	0.59	0.10	0.29	0.10	0.09	0.11	0.01	0.17	0.04	0.29	0.75
Karnataka	0.50	0.07	0.35	0.05	0.07	0.19	0.02	0.22	0.22	0.25	1.25
Kerala	0.43	0.08	0.40	0.25	0.28	0.25	0.05	1.00	0.43	0.71	1.90
Madhya Pradesh	0.51	0.17	0.39	0.07	0.18	0.16	0.01	0.10	0.08	0.19	0.84
Maharashtra	0.69	0.04	0.19	0.11	0.06	0.19	0.04	0.33	0.24	0.18	1.07
Manipur	0.21	0.36	1.22	0.04	0.04	0.58	0.02	0.12	0.21	0.06	0.89
Meghalaya	0.87	0.69	0.16	0.02	0.32	0.65	0.01	0.45	0.62	0.30	1.37
Mizoram	0.45	0.24	0.24	0.11	0.03	1.25	0.02	0.46	0.53	0.20	0.59
Nagaland	0.47	0.00	0.15	0.01	0.01	0.33	0.02	0.08	0.26	0.22	0.39
Odisha	0.46	0.12	0.41	0.07	0.23	0.17	0.01	0.14	0.12	0.16	0.89
Puduchery	0.53	0.00	0.35	0.10	0.11	0.25	0.10	0.17	0.14	0.10	1.57
Punjab	0.27	0.00	0.10	0.26	0.07	0.09	0.02	0.67	0.15	0.21	1.26
Rajasthan	0.77	0.03	0.18	0.22	0.22	0.09	0.01	0.11	0.14	0.23	0.52
Sikkim	0.88	0.50	0.40	0.25	0.15	0.60	0.02	0.39	0.31	0.42	1.22
Tamilnadu	0.82	0.25	0.49	0.12	0.49	0.31	0.02	0.31	0.29	0.41	1.34
Telangana	0.73	0.03	0.79	0.19	0.29	0.25	0.03	0.16	0.20	0.14	1.06
Tripura	0.23	0.00	0.15	0.18	0.15	0.10	0.01	0.11	0.09	0.22	0.65
Uttar Pradesh	0.31	0.00	0.15	0.14	0.03	0.08	0.01	0.10	0.05	0.13	0.49
Uttarakhand	0.64	0.22	0.10	0.08	0.03	0.07	0.01	0.14	0.05	0.23	0.61
West Bengal	0.27	0.24	0.61	0.04	0.05	0.18	0.02	0.21	0.13	0.22	0.87

Source: Authors calculations from PLFS

While the overall industry story provides an overview of how gender gaps in LFPR have fared over the years, identifying the state-industry nexus is crucial to identify states that are performing well as compared to others. Figure 7a and 7b provides a state-industry heat map of the gender gap ratio during the pre-covid years (2017-18 to 2019-20) and post-covid (2021-22 to 2022-23) respectively. The figures in each cell denote the ratio of females to males. Thus, for example, 0.84 for Andhra Pradesh in the agricultural sector denotes that there are 84 females for every 100 men employed.

The state-wise analysis of the state-industry gender gap from 2017-18 to 2019-20, figure 7a, provides interesting insights. *First*, with regard to the mining sector, the north-eastern states, including, Assam, Manipur, Meghalaya, and Assam have considerably lower gender gaps, than the rest of India. *Second*, in the construction sector, the southern states, such as Andhra Pradesh, Kerala, Tamil Nadu, and Telangana outperform the other states in the economy. *Third*, across all states and industries, Kerala has the lowest gender gap followed by Andhra Pradesh. *Fourth*, Manipur and Mizoram are the only two states in the manufacturing and the trade industry respectively, where there are more women as compared to men in the labour force. This is due to the fact that the total workforce in that industry is considerably low.

Figure 7b: Gender gap in LFPR across all industries in India (2021-22 – 2022-23).

	Agriculture	Mining	Manufacturing	Utilities	Construction	Trade	Transportation	Financial services	Real estate	Public administration	Other services
Andhra Pradesh	0.94	0.11	0.36	0.09	0.26	0.43	0.02	0.09	0.32	0.67	1.37
Arunachal Pradesh	0.74	0.00	2.02	0.21	0.04	0.67	0.04	0.13	0.34	0.14	0.58
Assam	0.48	0.01	0.50	0.25	0.00	0.09	0.01	0.33	0.12	0.10	0.96
Bihar	0.41	0.00	0.08	0.05	0.01	0.10	0.00	0.09	0.12	0.14	0.35
Chandigarh	0.04		0.18	1.13	0.02	0.17	0.04	0.11	0.17	0.16	0.81
Chhattisgarh	0.93	0.06	0.21	0.08	0.30	0.29	0.04	0.33	0.13	0.29	1.27
Delhi	0.00		0.13	0.06	0.03	0.08	0.06	0.13	0.17	0.12	0.63
Goa	0.73	0.13	0.18	0.14	0.02	0.20	0.05	0.44	0.25	0.23	1.96
Gujarat	0.84	0.43	0.24	0.04	0.17	0.16	0.03	0.15	0.13	0.18	1.26
Haryana	0.46	0.00	0.10	0.08	0.07	0.11	0.02	0.19	0.06	0.06	1.14
Himachal Pradesh	1.80	0.00	0.13	0.04	0.09	0.20	0.02	0.19	0.25	0.31	1.40
Jammu & Kashmir	2.03	0.00	0.37	0.03	0.02	0.03	0.00	0.16	0.15	0.09	0.91
Jharkhand	1.55	0.08	0.32	0.08	0.08	0.13	0.01	0.13	0.08	0.15	0.85
Karnataka	0.68	0.01	0.34	0.13	0.08	0.21	0.02	0.20	0.34	0.28	1.65
Kerala	0.89	0.00	0.42	0.49	0.18	0.32	0.07	0.72	0.61	0.65	2.13
Madhya Pradesh	0.71	0.07	0.41	0.06	0.17	0.15	0.02	0.13	0.11	0.12	0.94
Maharashtra	0.82	0.11	0.23	0.12	0.07	0.20	0.05	0.31	0.29	0.29	1.29
Manipur	0.31	0.42	2.19	0.07	0.02	0.51	0.01	0.09	0.20	0.04	0.86
Meghalaya	0.92	0.32	0.35	0.12	0.49	0.78	0.02	0.46	0.34	0.41	1.88
Mizoram	0.76	0.00	0.25	0.03	0.01	1.21		0.22	0.43	0.08	0.66
Nagaland	1.23	0.00	0.61	0.04	0.07	1.08	0.00	0.19	0.46	0.14	0.47
Odisha	0.88	0.13	0.65	0.06	0.17	0.22	0.01	0.20	0.12	0.29	1.12
Puduchery	1.04	0.00	0.40	1.56	0.07	0.29	0.16	0.26	0.53	0.18	1.92
Punjab	0.42	0.26	0.09	0.04	0.12	0.11	0.03	0.20	0.19	0.14	1.53
Rajasthan	1.20	0.16	0.14	0.05	0.22	0.08	0.01	0.06	0.06	0.17	0.81
Sikkim	1.45	0.00	0.40	0.01	0.20	0.70	0.01	0.13	0.22	0.46	0.93
Tamilnadu	0.98	0.05	0.46	0.27	0.54	0.30	0.02	0.28	0.33	0.35	1.26
Telangana	0.84	0.00	0.77	0.10	0.28	0.33	0.02	0.21	0.18	0.21	1.19
Tripura	0.55	2.64	0.26	0.32	0.54	0.07	0.01	0.15	0.21	0.15	1.37
Uttar Pradesh	0.66	0.06	0.18	0.07	0.03	0.11	0.00	0.18	0.05	0.16	0.59
Uttarakhand	1.27	0.00	0.12	0.06	0.05	0.13	0.00	0.13	0.13	0.08	0.88
West Bengal	0.52	0.17	0.64	0.06	0.04	0.16	0.01	0.17	0.18	0.15	1.28

Source: Authors calculations from PLFS

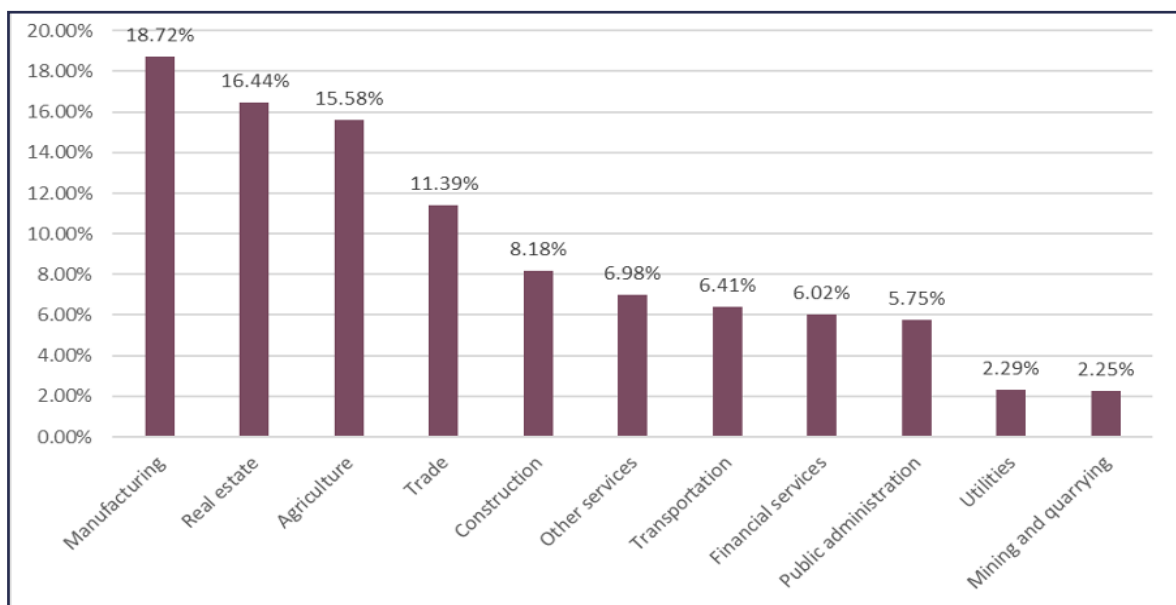
Figure 7b illustrates the state-industry gender gap heat map for the years post-covid, to examine whether the trends in gender gaps have changed. A few significant results emerge. *First*, the gender gap in agricultural sector has considerably fallen, with eight out of 32 states (25%) having more women than men employed in the agricultural sector. *Second*, the gender gap in the manufacturing sector has significantly reduced across most states. Specifically, Arunachal Pradesh, Manipur, and Assam exhibit spectacular transformations wherein in Arunachal Pradesh and Manipur, there are twice as many women as men working in the manufacturing sector. *Third*, the average gender gap ratio across industries have seen a considerable increase. For instance, the gender gap ratio in agriculture has increased from

0.56 to 0.85, while the gender gap ratio in manufacturing industry had increased from 0.3 to 0.43. Thus, post covid, while overall FLPR has increased in India, the success stories differ across states and industries.

Observation 4: Apart from the manufacturing industry, the top industries contributing the highest to economic growth have witnessed a decline in the gender gap in labour force participation.

The industries contributing the maximum to economic growth in India are: (a) agriculture, (b) manufacturing, (c) real estate, (d) trade (refer to Figure 8). Across these industries the gender gap in LFPR has seen a considerable decline. For instance, the gender gap in LFPR in agriculture has decreased from 40 pp in 2017-18 to 10 pp in 2022-23. Similarly, the gender gap in the manufacturing and trade sector has reduced from 54 and 76 percentage points respectively to 50 and 67 percentage points. For the real estate sector, the gender gap in LFPR has decreased from 73 pp to 62.2 pp.

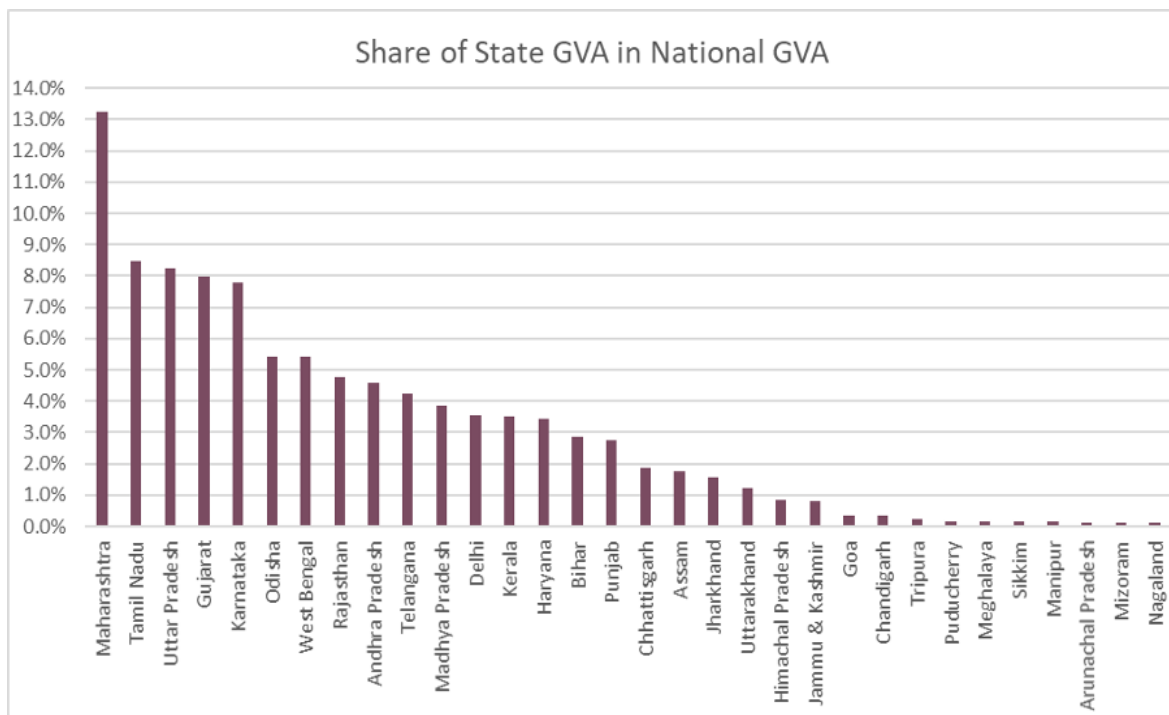
Figure 8: Share of each industry in National GVA (2022-23).



Source: Authors calculations from MoSPI

While the overall trend shows a decline in Gender gap in LFPR over time, we also examine how the largest growing states have performed within these industries. We choose the top 5 states that contribute the highest to the economy’s GDP, namely Tamil Nadu, Maharashtra, Karnataka, and Uttar Pradesh. Together, they contribute to 45 percent of the national gross value added (figure 9).

Figure 9: Share of each State in National GVA (2022-23).



Source: Authors calculations from MoSPI.

We find that across all these states, the gender gap in LFPR has seen a decline across all the five industries mentioned, with the exception of Karnataka and Uttar Pradesh in the manufacturing sector (figure 10a to 10d). In the manufacturing industry, the gender gap in LFPR in Uttar Pradesh and Karnataka has increased from 43 pp and 67 pp to 48 pp and 71 pp respectively. For the trade industry, the gender gap in LFPR for Tamil Nadu has not witnessed any significant changes over the year. This statistic is important as it showcases how high growth contributing states are collectively reducing the gender gaps in LFPR over time. Hence, other states in the economy can benchmark their results against these states to measure their success in this initiative.

Observation 5: Among the states that contribute the highest to India’s economic growth, Tamil Nadu demonstrates a low gender gap across industries, while Uttar Pradesh consistently has a high gender gap across all industries

We assess the relationship between gender gap in LFPR (state-wise) at the industry level and the industry GVA for the year 2022-23 (Figure 10). We examine the relationship for states that contribute the highest share to national GVA, namely, Maharashtra, Tamil Nadu, Karnataka, Gujarat, and Uttar Pradesh. A few interesting trends emerge. Uttar Pradesh is the only state with a high industry GVA (across all industries), and a high gender gap in LFPR. Tamil Nadu has consistently achieved high GVA across all industries with a lower-than-average gender gap in LFPR. Karnataka displayed high GVA and high gender gap in LFPR during the pre-covid years,

however, it shifted to the second quadrant of low gender gap and high GVA. For Maharashtra and Gujarat, the results are mixed across industries.

Figure 10: Gender gap at the industry and state-level for selected high growth states



Source: Author's calculations from PLFS

3. The Way Forward: Measures to reduce the gender gap in labour force participation to enhance economic growth in India

Gender equality is crucial to achieve the ambitious goal of a \$7 trillion economy by 2030, and thereafter become a developed economy by 2047. Mobilizing all available talent maximizes productivity and competitiveness that pushes economic growth and prosperity. Therefore, it is important to identify pathways to can enable women to not only enter the workforce, but also sustain a career that will be beneficial for boosting overall economic growth.

The main results from the data show that there exists a strong case for lowering the gender gap in labour force participation as it improves overall economic growth in India. Moreover, across different employment types, it is seen that the cost of gender wage gaps existing in regular salaried and self-employed jobs are the highest and. Furthermore, gender gaps in

labour force participation also exists at the industry level, with construction and transportation being sectors that exhibit the highest gender gaps.

Given the state and industry analysis, we suggest the following policy recommendations that will help towards building a more inclusive workforce.

1. Investment in women's human capital: Ensuring that education and skilling is accessible to both genders equally, is crucial. While India has made great strides in bridging the gender divide in Gross Enrolment Ratio over the years, the gender gap in skilling and vocational training remains high. In 2022-23, 36.1% of men and 18.6% of women aged 18-59 had ever received vocational training and this gap has increased over the years. Only 7% of skill trainees were women candidates in 2021 despite 17% ITIs being women-only. Furthermore, due to traditional and social norms, the fields of training for men and women are completely different. While men get trained and skilled in electronics, mechanical and civil engineering, and the automotive industry, women get trained primarily in beauty related services, clerical jobs, and healthcare.⁷ Therefore, it is important to move the needle in this regard to push women to not only improve the uptake of training and skilling, but also to be skilled in sectors that will help improve wages and overall economic growth. Figure 11 represents the employment type of males and females across education categories. We see that individuals with tertiary levels of education make up the highest proportion of regular salaried jobs for both men and women. For casual workers and own account workers, the highest proportion comes from individuals with just primary level of education. Therefore, it is imperative that human capital needs to be improved to enable the workforce to move from unpaid family work and casual work to regular salaried employers. The increasing focus of the government on ITI's and vocational training institutes are a welcome change in this aspect. As of 2022-23, 49.8 percent of women who have completed post-graduation or above are in the labour force, compared to 89.4 percent for men. Thus, there exists a demand-supply gap where more educated women can be brought into the workforce. While fewer educated women join the labour force, possibly due to higher reservation wages, the gender wage gap should be reduced to incentivize women to join the labour force.

⁷ India Spend: How Skilling Can Bridge the Gap Between Women & Work. Available at: [India Spend Report](#).

Case Box 1: The Story of Viet Nam's Labour Force

Viet Nam's economic miracle could not be achieved without mobilizing its labour force. At 68.5 percent its female labour force participation rate surpasses that of the top-performing advanced Western economies. Additionally, the country has managed to sustain a female labour force participation rate of around the same level.

The turning point for Viet Nam was Viet Nam war and subsequent Doi Moi reforms. The war resulted in sharp decline in the male population relative to the size of the female population, especially in the working-age group. As the economy started to grow following the launch of the Doi Moi reforms in 1986, the available supply of labour was predominantly females. Doi Moi reforms were accompanied by a major push toward improving education—Education for All (EFA). The first EFA plan (1993–2000) emphasized gender equality for all levels of education. These efforts paid dividends by ensuring that the post-war increase in female labour force participation was not short-lived. Most women (38.6%) are employed in service sector, whereas, men are equally distributed in Agriculture, Industry and service sectors.

Women are on average found in lower-quality employment than men. They are disproportionately represented in vulnerable forms of employment. Despite working similar hours and the ongoing narrowing of gender gaps in education, women still earn less than men. Moreover, they remain underrepresented in positions of leadership and decision-making. Although women are highly active in the workforce, they bear a disproportionate share of family responsibilities. They spend twice as many hours as men on household tasks.

Source: IMF Finance and Development & ILO

2. Improving the Care Infrastructure: Recent evidence from the Indian economy show that the highest burden of care work falls disproportionately on women, which pulls back their labour market participation. However, this is not specific only to India, but also globally. Using cross-country data, Addati et al., (2018) cites shows that women are substantially more likely than men to report child and home responsibilities as reasons for not engaging in paid labour. In India, women spend 7.2 hours on child care and domestic responsibilities as compared to 2.8 hours spent by men.⁸ Hence, providing for a care ecosystem is crucial in bringing women to the workforce. India has recently adopted progressive maternal leave and childcare provisions in its labour laws that would require substantial growth of childcare service providers in the country. Provisions related to maternity benefits are not new to Indian laws. However, the recent amendment of the Maternity Benefit Act in 2017 signals the Indian government's emphasis on adopting progressive policies to protect the interests of women working in the organized sector. Furthermore, under the Palna Scheme, provision of Anganwadi cum Creches has been introduced by the Ministry of Women and Child Development. However, there has been concerns over the falling budgetary allocation and the number of creches under this scheme.⁹ Recent studies have shown that investment in care infrastructure can potentially create 11 million jobs in India with nearly 70 percent being occupied by females.¹⁰

⁸ Time Use Survey, 2019

⁹ Lok Sabha Unstarred Question, Lok Sabha Unstarred Question

¹⁰ [Formulating a strategy for India's Care Economy](#)

Figure 11: Employment categories by educational classification across gender.

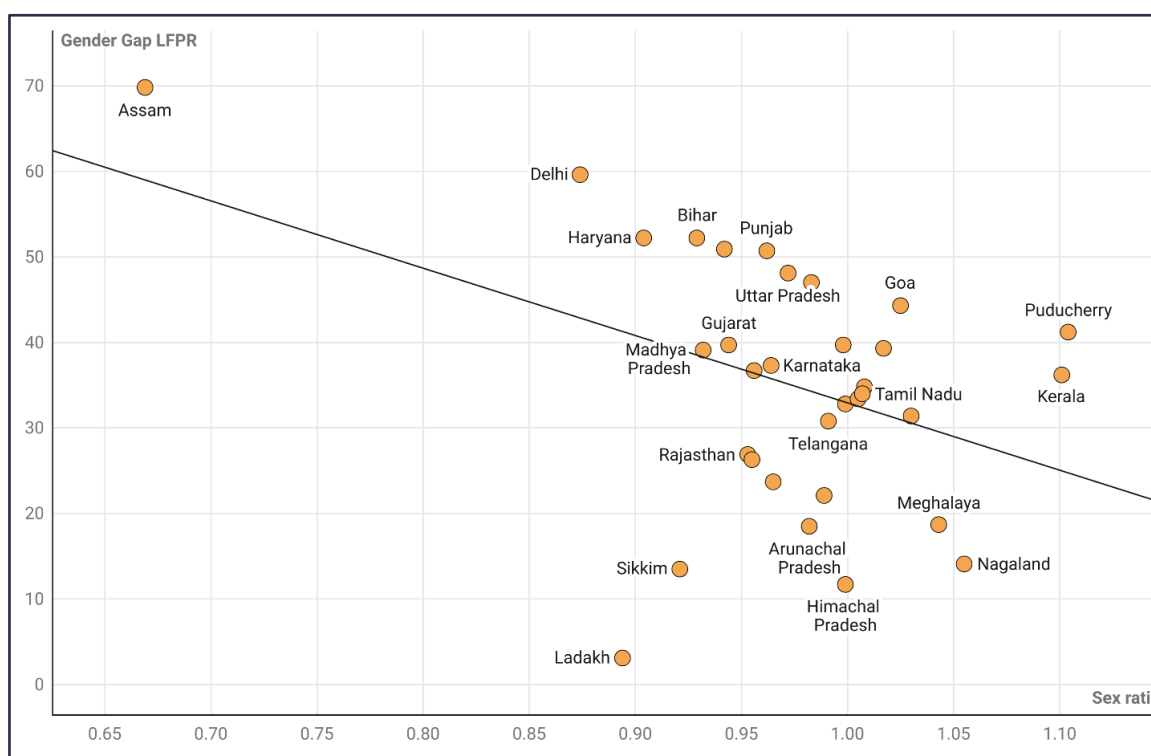


Source: Computation from PLFS

3. Shifting Cultural Norms: In a country like India, traditional cultural norms have for long created barriers for women’s participation in the workforce. For instance, Alesina et al. (2013) find that the historical use of ploughs in agriculture, created a favourable advantage for male over female workers, and still exhibits strong correlations with current low female labour force participation. In a similar vein, Giuliano and Nunn (2021) provide additional evidence for how cultural norms persist by documenting how gender norms and other cultural traits are stronger among countries with less variability. Using data from the PLFS, we see that there is a negative association between sex ratio and gender gap in labour force participation rate across states in India. States that have a higher sex ratio (defined as number of females per 1000 males) exhibit lower gender gaps in LFPR (Figure 12). This trend illustrates that cultural norms have a significant role in reducing the gender gap in

the labour market. Policies by the government such as the Beti Padhao Beti Bachao (educate and save the girl child) and Sukanya Samridhi Scheme (a financial safety net scheme for girl child) are positive steps that the government has been taking to improve the sex ratio in India, which will have positive consequences on female labour force participation in the long run.

Figure 12: Association between sex ratio and gender gap in LFPR across states.



Source: Computation from PLFS

4. Bridging the gender disparity in key growing industries: Certain industries, such as the construction sector in India, is rapidly growing to fulfil the demand of the economy. It is essential that the gender gap in such sectors is reduced to leverage the growth of the industry. Minimizing the gender gap makes good business sense as it enhances the potential to fasten growth. However, certain industries in India have strong gender divides. In the construction industry, men have historically held the majority of positions, and women have encountered significant obstacles to enter and advance in this field. At present, women make up only 9 percent of the construction workforce.¹¹ Creating safe and inclusive work environment, fostering equal pay for equal work, and offering flexible work arrangements, on-site childcare, and other support programs that enable employees to manage both their work and family responsibilities effectively. The Government of India also needs to improve skilling in order to enable women to participate in these sectors efficiently. The National Policy for Skill Development and Entrepreneurship, Pradhan Mantri

¹¹ PLFS 2022-23

Kaushal Vikas Yojana, National Rural Livelihood Mission are examples of good policies towards this. Furthermore, India can learn from its neighbours such as Bangladesh which has improved the FLPR significantly by employing women in the textile sector. However, equally important, if not more, is to maintain workplace safety. For instance, while Bangladesh reports high female labour force participation in its garment factories, it is also a place where women face high violence (Gibbs et al., 2015)

Case Box 2 - Tamil Nadu: Where Women are Building the Future of India

Tamil Nadu has one of the largest female representations in the construction workforce in India. While 9% of construction workforce comprises of females across India, for Tamil Nadu the number is 34%. This has been instrumental in the growth of the state, as the construction sector is one of the key drivers of economic growth in the Indian economy. Therefore, leveraging the women workforce in this sector is bound to provide a catalyst to economic growth.

Tamil Nadu has achieved this through robust economic policies that has created a safe and equal workspace. In 2024, the state introduced 'Tamil Nadu State Policies for Women' where the state focused on zero tolerance on any kind of discrimination, abuse or violence against women, promoting digital literacy to bridge the gender divide, and also focus on women-headed households from oppressed communities and vulnerable occupations.

5. Providing a safer environment for women's participation: One of the main concerns faced by working women is lack of safety and conveniently located accommodation. The Government of India has provided for working women hostels in this regard. As of 2023, there were 494 working women hostels across states and union territories in India. However, the spread of these hostels is very concentrated in only a few locations. Almost 50 percent of the total working women hostels in India are in just two states, namely, Kerala and Tamil Nadu. Therefore, there is a need to expand these services in order to improve the safety and security of working women, as well as to increase the uptake of women into the labour force. The Indian government has put in place other measures such as the 'Women and Child Helpline' and the establishment of 'Women Special' buses and trains in Delhi, Tamil Nadu and Maharashtra to ensure the safety of female passengers. Services such as SheRyds that is offered by the Delhi Metro Railway Corporation (DMRC) are excellent examples that offer both employment opportunities for women as well as protects the safety and security of women travelers.¹² Recent research shows that there is a positive impact on public and private transportation facilities on women's employment (Balachandran and Desai, 2024)

6. Provisioning for gender budgeting in India: Gender budgets play a critical role in empowering women to enter the workforce. In India, gender budgets have not seen drastic changes over the last decade. The gender budget in India has been in the range of 4-5 percent over the last 15 years. This is concerning as the continuous low trends provide little

¹² Delhi Metro Launches Bike Taxi Service For Commuters, Includes Women Bike Drivers For Female Commuters

support for women. On the contrary, countries like Canada and Australia have a large proportion dedicated towards gender budgeting which also results in higher female labour force participation. The FLPR in Canada and Australia is 61.1¹³ and 61.5 percent respectively, way above the Indian economy.¹⁴ Thus, higher gender budgets can significantly reduce the gender gaps in labour force participation.

7. Relaxing laws and regulations to empower women's workforce participation: In India, even till today, many states prohibit women to work at night in factories and commercial establishments. While this is done with the intention to improve safety of women, it also hinders the participation of women. States have made various changes in their regulation over time. For instance, women in Andhra Pradesh are now allowed to pursue factory work at night, and those in Madhya Pradesh can engage in night-time work at commercial establishments. However, most other states, including Bihar and Rajasthan, continue to prohibit women from working at night in factories, while West Bengal continues to prohibit women from working at night in commercial establishments. Since 2022, no progress in this direction has slowed with no state having eased any further restrictions on women's employment in 'dangerous' jobs.

4. Conclusion

Closing the gender gap in labour force participation to enhance economic growth is a smart policy move. It encompasses both the social and economic benefit in an economy. While there is growing evidence to suggest the association between narrowing gender gaps in LFPR and economic growth, the sectoral pathways through which that can be achieved is less known. This brief makes an attempt to fill that gap by exploring the sectoral pathways in which FLPR can be improved. For an economy to grow at a sustained rate, it is vital to understand which industries are the drivers of growth, and how can those industries become more inclusive in its workforce. However certain industries are geography specific, and hence understanding the geographical variation in growth and labour force participation becomes vital. Benchmarking performance against states with similar per-capita growth will be crucial in determining the relationship between gender gaps in labour force participation and economic growth.

It is important that the policies prescribed and implemented do not follow a one-size fit all strategy. While certain policies are centrally governed and implemented, it is equally important for states to understand the state-specific need and craft policies to improve the state's pathway to growth.

¹³ [The Status of Gender Budgeting in India](#)

¹⁴ World Bank Gender Data Portal

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