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How (Not) To Count Indian Women's Work: Gendered Analyses and the Periodic Labour Force Survey

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Abstract: Unit-level Periodic Labour Force Survey (PLFS) data have been helpful in depicting the intensity of the employment crisis in India even before the Covid-19 related economic collapse. However, from the perspective of effective gendered analyses of the economy, the PLFS has failed to improve upon the old Employment–Unemployment Survey (EUS), and in one way has taken a step back, making it more difficult to understand the range and extent of women's economic activities. It is past time that the National Sample Survey Organisation (NSSO) adopted the now well-established recommendations of feminist economists, and reformed its data definition and data collection so as to better account for women's work.

Keywords: India, labour force data, gender, women

INTRODUCTION

From 2014 to 2020, even before the severe Covid-19-related downturn, the Indian economy experienced a period of compounded economic distress, with slowdowns in rural as well as urban economies ([Anand and Azad 2019](#)). Unit-level data from the Periodic Labour Force Surveys (PLFS) confirm the intensity of the employment crisis in both urban and rural India during those years. In particular, the PLFS shows declines in the labour force participation rates for women, and increases in the unemployment rates for men ([Kannan and Raveendran 2019](#)).

While the overall validity of PLFS data needs to be emphasised, there are important criticisms of the PLFS design from the perspective of a gendered analysis of the Indian economy. Some of these criticisms are long-standing, such as the persistent failure of the National Sample Survey Organisation (NSSO), and thus the PLFS, to adopt global standards that reduce the gender bias of employment definitions ([Hirway 2012](#)). There are also other ways in which the PLFS could have enabled a richer gendered analysis of the Indian workforce, but it has failed to do so. Instead, the PLFS design makes such analysis even more difficult because of the decision to drop an Employment–Unemployment Survey (EUS) module that asked additional questions of respondents, primarily women, who were not classified as what the NSSO terms “principal status employed.”

India's ability to address its current crises and reap its so-called demographic dividend relies heavily upon generating employment in a more equitable and inclusive way with respect to class, caste, religion, as well as gender ([Basu and Bhatt 2020](#)). Any attempt to craft gender-inclusive policies requires data that allow for gender-based analysis. And yet, the PLFS

contributes further to the erasure of much of Indian women's work from more detailed economic analysis.

THE PLFS AND A GENDERED ANALYSIS OF INDIA'S WORKFORCE: WHAT THE DATA REVEAL

To establish the basic context, the 2017–18 PLFS data confirm some persistent gendered patterns over the 2000s. As [Tables 1](#) and [2](#) show, there has been a dramatic shift in women's labour force participation rates after 2004–5. Until 2004–5, the share of working-age (15–65 years) women in the labour force (as defined by the NSSO) was more or less steady at around 30 per cent ([Table 2](#)). Since then, that share has fallen dramatically, with declines in participation in the agricultural work force leading the way ([Mehrotra and Parida 2019](#); [Kannan and Raveendran 2019](#)). The PLFS indicates a continuation of that trend.

Table 1 *Labour force participation rate (ps+ss), working-age women (age 15–65), India, 1983 to 2017-18 in per cent*

	1983	1993–94	1999–2000	2004–05	2011–12	2017–18
Rural	54	51	48	51	37	26
Urban	23	23	22	24	21	22
Overall	46	44	41	44	32	25

Source: Author's calculations based on Employment–Unemployment Survey and Periodic Labour Force Survey.

Note: ps=principal status; ss=subsidiary status

Table 2 *Women's share in the workforce (ps+ss), working-age women (age 15–65), India, 1983 to 2017-18 in per cent*

	1983	1993–94	1999–2000	2004–05	2011–12	2017–18
Women's share in non-agricultural workforce	21	21	20	22	21	19
Women's share in agricultural workforce	39	38	38	40	34	30
Women's share in total labour force	34	33	31	33	28	23

Source: Author's calculations based on Employment–Unemployment Survey and Periodic Labour Force Survey.

Note: ps=principal status; ss=subsidiary status

Secondly, the PLFS data also confirm the highly gender-segregated nature of the Indian economy. Women's stagnant share in non-agricultural work for pay or profit is a striking feature of the data ([Table 2](#)). This was a feature of the economy in the 1980s as well, before India's transition to a more liberalised economy after 1991, but given neo-liberal claims about free markets being good for women, and the focus on micro-credit and women's entrepreneurship, the failure to change those numbers is significant.

Thirdly, PLFS data confirm that the decline in the share of women in the labour force after 2004–5 continued to be concentrated among the most marginalised groups. Generating consumption quintile cut-offs based separately on rural and urban monthly per capita consumption expenditure (or mpce), we note that only the top three urban consumption quintiles showed any increase in women's labour for pay or profit ([Table 3](#)).

Table 3 *Labour force participation rate (ps+ss) by consumption quintile, working-age women (age 15–65), India, 1983 to 2017-18 in per cent*

	1983	1993–94	1999–2000	2004–05	2011–12	2017–18	Change from 2004
Rural							
Quintile 1	63	59	57	55	38	27	–28

Rural	1983	1993–94	1999–2000	2004–05	2011–12	2017–18	Change from 2004
Quintile 2	57	54	51	54	35	25	–32
Quintile 3	53	51	49	52	37	25	–28
Quintile 4	51	47	48	49	39	27	–24
Quintile 5	49	44	43	46	36	27	–22
<i>All quintiles</i>	<i>54</i>	<i>51</i>	<i>48</i>	<i>51</i>	<i>37</i>	<i>26</i>	<i>–28</i>
Urban	1983	1993–4	1999–2000	2004–5	2011–12	2017–18	Change from 2004
Quintile 1	32	36	35	32	23	19	–13
Quintile 2	27	27	25	28	23	21	–6
Quintile 3	21	23	21	21	19	21	0
Quintile 4	18	21	18	19	19	22	4
Quintile 5	20	23	19	21	20	25	5
<i>All quintiles</i>	<i>23</i>	<i>23</i>	<i>22</i>	<i>24</i>	<i>21</i>	<i>22</i>	<i>–1</i>

Source: Author's calculations based on Employment–Unemployment Survey and Periodic Labour Force Survey.

Note: (i) ps=principal status; ss=subsidiary status. (ii) 2004 is the break year after which the labour force participation rate clearly declines.

When we categorise households by primary source of income, we once again see that only urban households whose primary source of income is salaries (the urban white-collar professional class, which overlaps with the top consumption quintiles) saw an increase in women's labour force participation over this period (Table 4). Dalit and Adivasi women have also seen disproportionate employment declines in both rural and urban India (Table 5). The increasing concentration of these urban, upper-quintile, salaried households in the southern States of India (the southern States now account for 36 per cent of the population in the urban top three quintile households, as compared to 21 per cent of the population as a whole), means that according to the NSSO data, women's labour force participation is now also spatially more concentrated.

Table 4 Labour force participation rate (ps+ss) by principal source of household income, working-age women (age 15–65), India, 1993–94 to 2017–18 in per cent

Rural	1993–94	1999–2000	2004–05	2011–12	2017–18
Self-employed, agriculture	49	47	54	40	28
Self-employed, non-agriculture	42	37	40	29	21
Salaried workers	NA	NA	NA	31	26
Casual wage, agriculture	65	61	64	47	42
Casual wage, non-agriculture	54	44	50	36	23
Others	29	25	25	6	6
Urban	1993–94	1999–2000	2004–05	2011–12	2017–18
Self-employed	23	21	24	20	19
Salaried	20	18	23	22	25
Casual wage	42	35	37	28	28
Other	9	9	6	4	8

Source: Author's calculations based on Employment–Unemployment Survey and Periodic Labour Force Survey.

Note: ps=principal status; ss=subsidiary status.

Table 5 Labour force participation rate (ps+ss) by caste, working-age women (age 15–65), India, 1993 to 2017–18 in per cent

Rural	1993	2004–05	2011–12	2017–18	Change from 2004
Dalit and Adivasi	62	60	45	31	–29
Others	46	47	33	24	–23
Urban	1993	2004–05	2011–12	2017–18	Change from 2004
Dalit and Adivasi	33	31	25	26	–5
Others	22	22	20	21	–1

Source: Author’s calculations based on Employment–Unemployment Survey and Periodic Labour Force Survey.

Note: (i) ps=principal status; ss=subsidiary status. (ii) 2004 is the break year after which the labour force participation rate clearly declines.

Fourthly, the PLFS confirms the role of age alongside that of gender. The labour force participation rate (LFPR) of women under 40 years of age declined from 27 per cent to 22 per cent in 2017–18, as compared to stagnant LFPRs for women over 40. This is not to say that stagnation in older women’s LFPR is good news, but the decline for younger women is disturbing for the future of the Indian economy if it indicates that younger and more educated women are less able to find paid work that satisfies both their aspirations and the extent of their investment in their skills (Mehrotra and Parida 2019).

The potential value and importance of the PLFS and EUS data are demonstrated by the findings above. Put within the historical context of the shift toward liberalisation after 1991, these data indicate that even before the Covid-19 crisis, three decades into the pro-capital growth model of the Indian economy in its neo-liberal phase, only the most privileged women in India were able to “lean in” to work for pay or profit. The ability to more carefully disaggregate these effects, and, most importantly, to understand the changing linkages between unpaid work and work for pay and profit that may be driving these outcomes is, however, currently limited by weaknesses in the data.

THE PLFS AND GENDERED ANALYSIS OF THE INDIAN WORKFORCE: WHAT REMAINS INVISIBLE

A distinguishing feature of feminist economics is its recognition of the labour of social reproduction. The work of social reproduction, largely performed by women in India, includes direct and indirect care work that may fall outside the sphere of pay or profit, but serves the critical function of ensuring the reproduction of labour power (Beneria 1979; Bhattacharya 2017). From this perspective, falling women’s participation in the pay-or-profit workforce may be a combined result of the lack of employment opportunities for women (the discouraged worker effect) and the increased pressures of direct and indirect care work (the double burden problem).

The failure of the NSSO to account for work in a way that is not biased against women points to the continuing lack of attention to feminist literature on this topic. Inconsistencies in counting the production of goods and services for own consumption as employment result in ambiguous interpretations of changes in women’s work (Hirway 2012; Waring 2018). Some of these inconsistencies are a feature of the underlying System of National Accounts (SNA) principles upon which NSSO surveys are based, but, as Hirway (2020) points out, the NSSO has been slow to adopt a recent resolution that attempts to move a little closer to a full accounting of the labour of social reproduction. This article, however, is focused more narrowly on the inconsistencies that arise from the NSSO’s treatment of the categories of “domestic duties” and “domestic duties and allied activities.”

The NSSO has long employed the categories of “domestic duties” and “allied activities” to classify unpaid reproductive labour. In theory, “domestic duties” seems to correspond to what feminists have termed “direct care work,” while “allied activities” appears to correspond to the category of “indirect care work” (Naidu and Rao 2018). However, while the inclusion of these categories was an important step forward when first introduced four decades ago, their definitions have never been fully fleshed out. Thus, the NSSO has never explained what it defines as “domestic duties.” Also, no definition of this term can be found in the various supporting documents of the EUS and the PLFS. Enumerators are not given guidelines on how to ask about domestic duties and verify whether a particular respondent is engaged in such activities. As a result, the category of “domestic duties” appears effectively to be treated as a residual category. There is little evidence of any effort taken to train enumerators and ensure that they do not mis-classify a person’s principal status under “domestic duties” merely because she is a woman.

For “allied activities,” we are provided a limited list of activities that may be included in this category, ending with an ambiguous “etc.” There is no rigorous attempt to pin down the conceptual limits of what may or may not be categorised as “allied,” a category that could be extremely important in understanding the extent to which dispossession and declining access to commons may have increased the burden of labour in tasks such as fetching fuel, firewood, water, and so on. Thus, when we see sharp swings in the share of women engaged in the “domestic and allied activities” category, there is a lack of confidence in the validity of the results. For example, amongst rural working-age women, there was an 8 percentage-point increase from 2004–5 to 2011–12, only to be followed by a 17 percentage-point decrease in this share from 2011–12 to 2017–18. As noted below, an additional module on allied activities in the EUS did help with validation to a limited extent, but that has been dropped in the PLFS.

Why is the existence of reliable data on “domestic duties” and “allied activities” important? The COVID-19 context has made clear what feminists have been arguing for a very long time: the unpaid labour of social reproduction is effort-intensive and can be gruelling, and changes in the burden of such labour significantly impact women’s ability to participate in the (pay or profit) labour force. The fact that this unpaid labour is currently a data black box is what has made it possible for some economists to assume that withdrawing from the labour force also means withdrawing into leisure, and therefore that “income effect”-driven explanations of Indian women’s falling labour force participation are indicative of improvements in women’s welfare. Of course, this is a plausible explanation only if you can show that women are indeed replacing labour for pay or profit with “leisure.” If, instead, their burdens of direct and indirect care work increase, we may instead be seeing increases in women’s time poverty as they adjust to what has been termed a “reproductive squeeze” (Naidu and Rao 2018). The lack of attention to basic conceptual and methodological aspects of measuring women’s work has made it extremely difficult to interpret what falling labour force participation numbers for women actually indicate (Swaminathan and Ramachandran 2020). If we could be more confident of the NSSO’s commitment to accurately capturing these data, we could say a great deal more about whether or not women’s falling labour force participation is indeed the result of unsustainable “double burdens.” We could also investigate whether these burdens are driven by increases in indirect care work versus “domestic duties,” thus helping us better understand the kinds of policy solutions that are needed. At present all we have are unclear definitions and data results that seem to swing across surveys in a manner that is hard to explain.

Setting aside these longstanding problems of definition and training, there are a few other problems that the PLFS inherited from the EUS that it failed to address. The first is the failure to ask women who are counted by the NSSO as being principal status “employed” any questions about the performance of allied or domestic labour. Thus, we have no data on the extent to which employed women (or men) *also* perform allied and/or domestic tasks, and therefore lack the ability to understand the incidence, if not the intensity, of the “double burden” on women. Since there is no data on these activities for women who do report principal or subsidiary status employment, we also lack the ability to fully understand the distribution of “allied” and

“domestic duties,” a crucial component of the generational division of labour, among women within the same household.

Secondly, the PLFS missed a significant opportunity to improve on the EUS with respect to one of the new features of the PLFS design. Within the daily status module, the PLFS for the first time collects hours worked each day by first and secondary daily activity status. This replaces the EUS method of asking whether the worker laboured for a full day or a half day. However, while hours worked are collected for all “employment” categories including self-employment, they are not collected for those reporting domestic or allied activities. Self-employment – for example, in agriculture – is subject to many of the same immediate problems concerning measurement of time and productivity as are supposedly related to measuring “domestic” duties. It is therefore unclear why the former is measured but not the latter. The release of the first national time-use survey as this paper was being written is an indication that these data should indeed be collected. The data need to be integrated into the PLFS to allow for a more complete picture of work across time.

The result of this omission in the PLFS is that, as [Table 6](#) shows, the median “hours worked” for working age women is 0, even though the median hours reported to be “available for work” by women is also 0, and indeed the standard deviation of available hours for women is smaller than that for men. It may be that the remaining time can be accounted for by “allied” and “domestic duties,” but, frustratingly, we do not have the data to confirm this. [Table 6](#) also reveals an interesting difference between median and mean hours worked by men in rural and urban India that may be worth exploring further. Notably, such an analysis for women’s work could only be done for a minority of the women because of the lack of data on hours worked in domestic and allied activities. The collection of such data would have helped researchers attempting to understand gendered patterns of work, and would have helped us “see” the extent of unpaid work performed by the vast majority of Indian women. Perhaps the NSSO’s experience with the recent time-use survey in India can help to address this gap in future rounds of the PLFS.

Table 6 *PLFS 2017–18: Hours worked and hours available for work, working age women and men, India, 2017-18 in hours*

Hours worked, total for 7 days						
	Working-age women			Working-age men		
	Median	Mean	Std dev	Median	Mean	Std dev
Rural	0	8.67	17.95	46	36.3	25.25
Urban	0	8.60	19.36	56	41.2	28.32
Hours available to work, total for 7 days						
	Working-age women			Working-age men		
	Median	Mean	Std dev	Median	Mean	Std dev
Rural	0	0.16	1.76	0	0.64	3.44
Urban	0	0.18	1.92	0	0.44	3.06

Source: Author’s calculations based on data from the Periodic Labour Force Survey.

Finally, there is one way in which the PLFS actually takes us a step backwards when it comes to the ability to develop a gendered analysis of the Indian economy. The EUS did include an “allied activities” module, which provided some insight into the activities performed by those women not categorised as “employed.” Thus, we could see a decline in the share of women reporting certain forms of food-and-agro-processing activities, and a rise in women performing tasks related to food security, such as the cultivation of kitchen gardens or the free collection of fruits and vegetables ([Naidu and Rao 2018](#)). These data were hardly sufficient to fully capture Indian women’s work, but they did give us some insight into the imperatives of social reproduction that may drive gender divisions of labour in India. The loss of this module without the addition of any

other information on women's work – and particularly the absence of additional data on hours spent on domestic or allied tasks – means that we are now even less able to understand women's work in the Indian economy.

CONCLUSION

The release of unit-level Periodic Labour Force Survey data has been helpful in establishing the basic contours of the pre-Covid-19 employment crisis that India was facing. This information in turn could be helpful to governments seeking to address mitigation measures to those who are most vulnerable. However, like the Employment–Unemployment Survey before it, the Periodic Labour Force Survey has failed to make it possible to investigate the gendered aspects of these vulnerabilities more carefully. This is despite several decades of critique from feminist economists and a well-developed literature on how to account for unpaid work within surveys such as the National Sample Survey (Waring 2018). The failure to incorporate recommendations from this vast literature indicates the National Sample Survey Organisation's lack of commitment to fully illuminating the gender dimensions of the Indian economy.

Future redesigning of the Periodic Labour Force Survey should take into account the well-established recommendations of feminist economists. In particular, it should:

1. pay more attention to the conceptual definition and treatment of “employment,” “allied activities,” and “domestic duties” in order to avoid gender bias in the measurement of work;
2. emphasise these conceptual definitions during enumerator training, and provide additional probing questions that enumerators should ask in order to avoid gender bias in collecting data on work;
3. ask questions about the performance of domestic and allied activities as part of the subsidiary status as well as principal status of workers;
4. record, within the new daily status module, hours spent on domestic and allied activities; and
5. reinstate those parts of the Employment–Unemployment Survey's “allied activities” module that made the “allied work” category less of a black box (and add questions about key domestic duties as well).

When it comes to a commitment to gender equality, it is high time the NSSO walked the walk. The Indian women whose unpaid labour keeps us going amidst the current crisis deserve at least this much.

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