

Women In (and out of) the Workforce

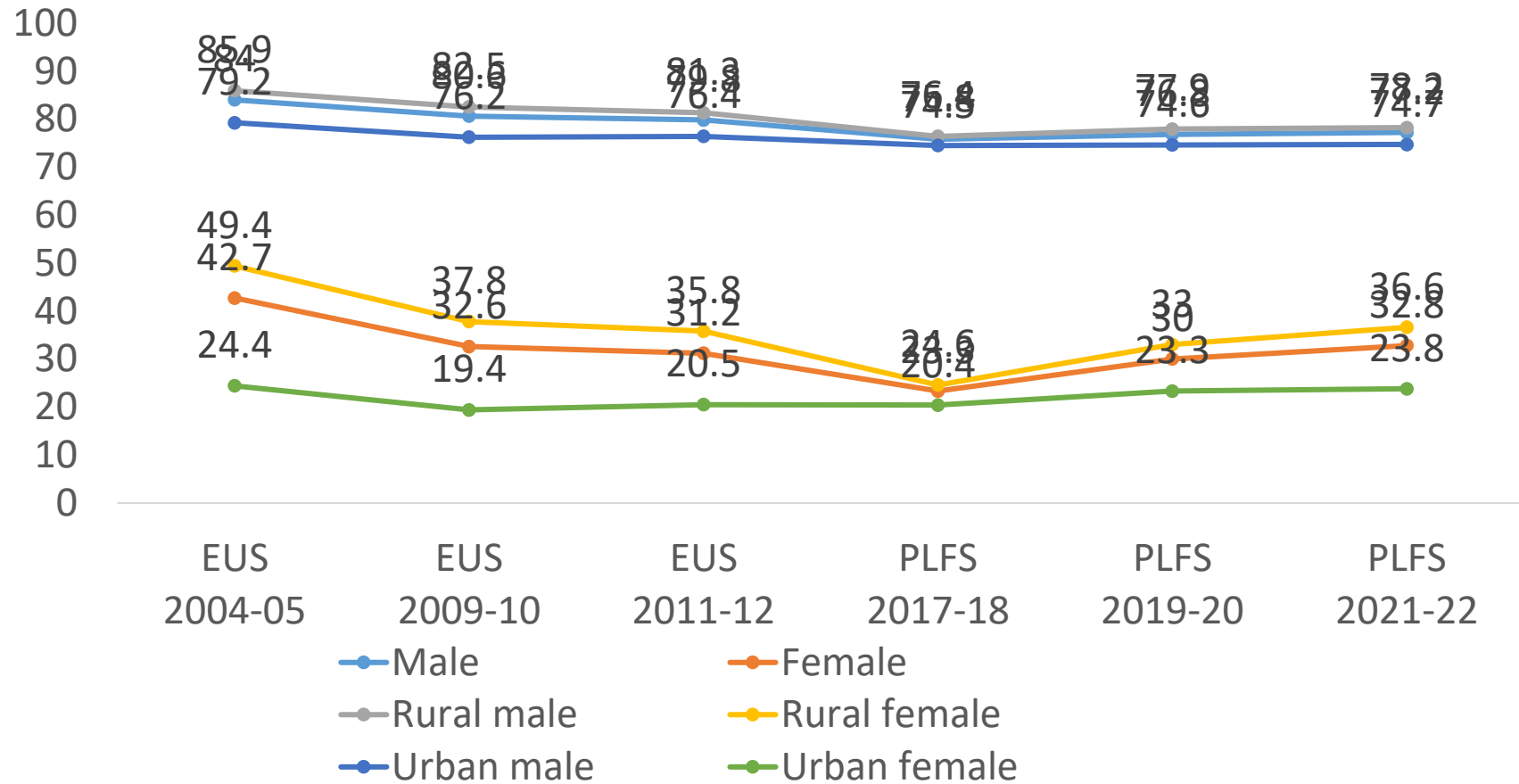
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Setting the context – Labour force participation (15+ years)



Data sources: Women's work - India

Individuals/households-based census/surveys

The primary source for the FLFP estimation -

- NSS Employment-Unemployment Survey (EUS) and Periodic Labour Force Survey (PLFS)

Others that help to estimate women's work:

- MoHFW National Family Health Survey (NFHS)
- NSS Time Use Survey (TUS)
- MHA India Census
- NCAER-UoM India Human Development Survey (IHDS)
- CMIE Consumer Pyramid Household Survey (CMIE-CPHS)
- Primary surveys by researchers

Enterprise-based census/surveys

- MoSPI Economic Census (EC)
- NSS Annual Survey of Industries
- CMIE Prowess

Which source to use...

- No perfect equivalence between the employment questions
- The questions capturing women's work differ across the surveys
- The frequency/sample designs/collection method of the surveys differ
- Additional individual/household level variables available differ
- Selection of one /multiple data sources depending on the research objectives

Primary data source - NSS-EUS (from 1955 to 2011-12)

- Quinquennial from 1972-73, Representative at national, state, and district levels
- **Measures Economic activity (previously captured gainful activity)**
 - **Market activities**
 - Activities for pay or profit that result in the production of goods and services for exchange
 - **Non-market activities**
 - Agricultural produce for own consumption
 - Own account production of fixed assets
- Provides information on occupation, industry, wages, method of payment, working conditions, location of work, household/personal characteristics, detailed consumption expenditure (served as proxies for income groups)

NSS-EUS Activity status

- **The Activity Status of an individual based on three reference periods**
 - **Usual activity status** – worked or looking for work in 365 days preceding the date of the survey
 - **Principal status** – if a person has spent majority of their time in the previous 365 days in paid work or looking for work
 - **Subsidiary activity status** – worked for at least 1 month but not looking for work, majority of the year
 - **Current weekly activity status** – worked or looking for work for at least an hour during each of seven days of the week preceding the survey.
 - Each day of the reference week was looked upon as comprising either two ‘half days’ or a ‘full day’
 - Worked or had work but did not do the work – priority given to working over ‘looking for work’ over ‘not working’
 - **Current daily activity status**
 - Worked for more than 4 hours a day – 1 full day - full-intensity activity
 - Worked for more than 1 hour but less than 4 hours – 0.5 days - half-intensity activity

NSS-PLFS (2017-18 onwards)

- **NSS replaced EUS with PLFS from 2017-18 onwards**
 - Annual estimates for both rural and urban areas at usual status and current weekly status
 - Quarterly estimates at CWS, only for urban areas, to capture the periodic change in select parameters in the revisit panel surveys. Each household is visited 4 times a year for 1 year.
 - Representative at the national, state, district level
- **Modifications to the survey methodology, data collection & sample design**
 - Households in each FSUs and its hamlet groups were categorised into three second stage strata (SSS) based on an indicator (education level) that broadly reflects their socio-economic status
 - Better coverage for urban areas in PLFS and less for rural areas
 - The multiplier used in the micro-level household data provides an underestimation of the number of households and population.
- More follow-up questions for those who have received formal vocational/technical training
- Gross monthly earnings of the regular salaried and self-employed workers in addition to daily/weekly wages of casual labourers
- Work intensity - hours worked rather than measuring it in half day or full day

Examples of papers using NSSO EUS/PLFS

Afridi, F., Dinkelman, T., & Mahajan, K. (2018). Why are fewer married women joining the work force in rural India? A decomposition analysis over two decades. *Journal of Population Economics*, 31, 783-818.

Klasen, S., & Pieters, J. (2012). Push or pull? Drivers of female labor force participation during India's economic boom.

Klasen, S., Le, T. T. N., Pieters, J., & Santos Silva, M. (2021). What drives female labour force participation? Comparable micro-level evidence from eight developing and emerging economies. *The Journal of Development Studies*, 57(3), 417-442.

Bhattacharya, J. (2023). Indian urban workers' labour market transitions. *The Indian Journal of Labour Economics*, 1-24.

NSS-TUS (Time Use Survey)

- Two rounds – 1998 and 2019
- Representative at the national, state, and district level
- Measure the extent of participation of respondents in paid and unpaid activities and the time spent in each activity
 - Information on activities in 24 hours starting from 4:00 am on the day before the date of the interview to 4:00 am on the day of the interview in 30-minutes slots
 - Individual activity and simultaneous activities
- International Classification of Activities for Time Use Statistics (ICATUS)
 - Employment and related activities,
 - Production of goods for own final use,
 - Unpaid domestic services for household members,
 - Unpaid caregiving services for household members,
 - Unpaid volunteer, trainee and other unpaid work,
 - Learning, Socializing and communication,
 - Community participation and religious practice,
 - Culture, leisure, mass-media and sports practices,
 - Self-care and maintenance

NSS-TUS

| Work related activity | % of 15-59 years reporting participation (average time spent in minutes in parentheses), 2019-20 | |
|---|--|------------|
| | Men | Women |
| Employment and related activity | 70.9 (470) | 21.8 (343) |
| Production of goods for own final use | 15.6 (198) | 22.7 (116) |
| Unpaid domestic services for hh members | 28.9 (95) | 92.3 (315) |

Papers using Time Use data

Nicholas Li (2023) Women's work in India: Evidence from changes in time use between 1998 and 2019, *World Development*, 161, 2023, 106107

Women experienced large decreases in work time (especially paid work) but urban women did not. Changes in self-reported “principal usual activity status” that are typically used to measure labour force participation do not provide an accurate measure of these changes in work time.

Mukesh Eswaran, Bharat Ramaswami, and Wilima Wadhwa (2013) Status, Caste, and the Time Allocation of Women in Rural India, *Economic Development and Cultural Change*, 61:2, 311-333

Use the all-India National Sample Survey data for the year 2004–5 and the Time Use Survey for six states of India for the year 1998–99.

The ratio of women's market work to men's declines as we move up the caste hierarchy. This ratio falls as family wealth rises, and the decline is steeper for the higher castes.

DAILY TIME USE IN MINUTES OF EMPLOYED YOUNG ADULTS (20-29 YEARS), 2019-20

| | RURAL | | URBAN | | INDIA | |
|--------------------------------|-------|--------|-------|--------|-------|--------|
| | Male | Female | Male | Female | Male | Female |
| Self care | 710 | 668 | 678 | 660 | 700 | 666 |
| Unpaid household work | 40 | 291 | 30 | 166 | 37 | 251 |
| Paid work | 431 | 284 | 498 | 390 | 452 | 318 |
| Community & volunteer services | 142 | 99 | 118 | 104 | 135 | 101 |
| Leisure | 104 | 83 | 104 | 101 | 104 | 89 |
| Learning activities | 3 | 5 | 4 | 11 | 3 | 7 |
| Type of Lesiure | | | | | | |
| Mass media | 59 | 47 | 71 | 70 | 62 | 55 |
| Cultural activities & hobbies | 9 | 1 | 4 | 2 | 5 | 1 |
| Sports | 3 | 1 | 5 | 2 | 4 | 1 |
| Reflecting, resting & relaxing | 34 | 33 | 21 | 24 | 30 | 30 |

Note: Total hours do not exactly add up to 24 hours because of rounding off and averaging across units.

ThePrint

NFHS

Five waves - 1992-93, 1998-99, 2005-06, 2015-16, 2019-21

Representative at the national, state, and even at the district level (in the latest 2 surveys)

Multiple probing questions on employment -

- Aside from your own housework, have you done any work in the last seven days?
- If not, have you done any work in the last 12 months?
 - What is your occupation, that is, what kind of work do you mainly do?
 - Do you do this work for a member of your family, for someone else, or are you self-employed?
 - Do you usually work throughout the year, or do you work seasonally, or only once in a while?
 - Are you paid in cash or kind for this work, or are you not paid at all?
- **Does not capture unemployment (looking for work), so FLFP cannot be estimated**

IHDS

The only survey which captures data for same households with a 7-year interval (2005, 2011-12)

About 83% of 2011-12 sample were repeat households.

- Some loss of information due to longer gap

Data released with a delay – IHDS wave 3 – 2018-19 data yet to be released.

Representative at the national level but not sub-national level (states)

Questions capturing work status -

- **Members of the household who worked/helped**
 - on the household farm during the last 12 months (self-employed in the farm)
 - for payment in cash or kind (wage work in agriculture or other sectors)
 - Non-farm business – up to three businesses recorded (self-employed in non-farm)
- **Number of days worked in the last year and number of hours a day usually worked**
 - <240 hours – not working
 - between 240 and 2000 hours – worked part-time
 - >2000 – worked full-time
- **Does not capture unemployment (looking for work), so FLFP cannot be estimated**

IHDS and NFHS have rich information on

- **Women's Agency and Empowerment**
 - Control over women's and husband's earnings
 - Decision-making in terms of ability to purchase, mobility (with/without permission)
 - Marital control, exposure and attitudes towards domestic violence
 - Health and fertility preferences
- **Household and community characteristics**
 - Households' assets (consumer durables, housing quality etc.) and basic services (water, electricity, sanitation etc.), property ownership (land, house etc.)
 - Village level services

Examples of Papers using IHDS

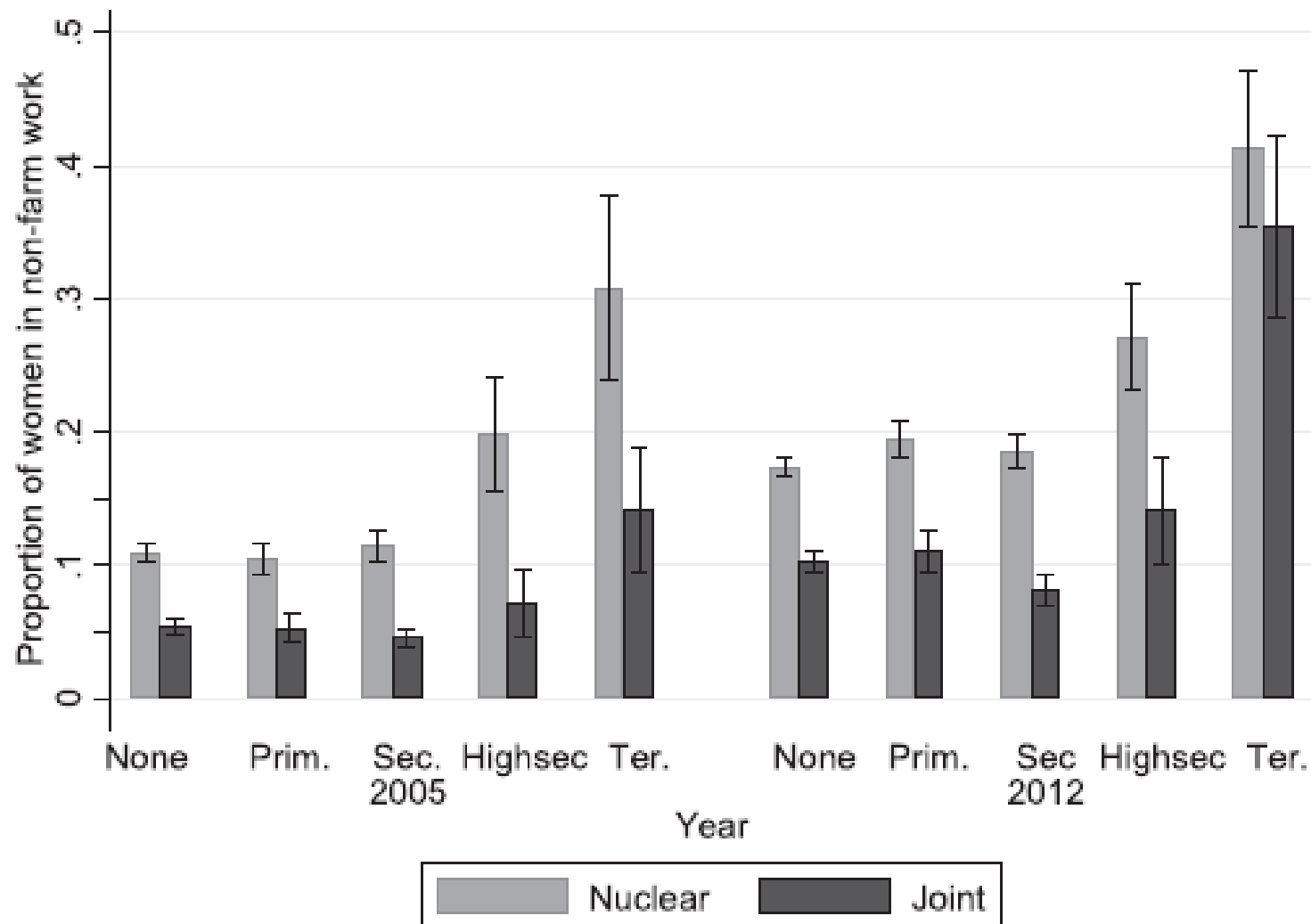
- **Sarkar, S., Sahoo, S., & Klasen, S. (2019). Employment transitions of women in India: A panel analysis. *World Development*, 115, 291-309.**
 - Looks at transitions in women's employment between 2005 and 2012
- **Lei Lei, Sonalde Desai & Reeve Vanneman (2019) The Impact of Transportation Infrastructure on Women's Employment in India, *Feminist Economics*, 25:4, 94-125**
 - How does village transportation infrastructure influence women's participation in nonagricultural work in India and vary by gendered norms in different communities?
- **Dhanaraj and Mahambare (2019) Family structure, education and women's employment in rural India, *World Development*, 115,17-29**
 - Investigates if residing in a joint family affects non-farm employment for married women in rural India.

Table 1

Agriculture and non-agricultural employment in rural areas for married women aged 15–55.

| | 2005 | | 2012 | |
|--|--------|-------|--------|-------|
| | Mean | se | Mean | se |
| <i>Full sample</i> | | | | |
| Hours spent in any work | 607.4 | 793.4 | 646.5 | 797.1 |
| Hours spent in farm work | 478.7 | 697.1 | 435.3 | 623.2 |
| Hours spent in non-farm work | 128.78 | 474.0 | 211.3 | 579.1 |
| Worked >240 h in any work (%) | 50.2 | 50.0 | 54.2 | 49.8 |
| Worked >240 h in farm (%) | 42.2 | 49.4 | 41.6 | 49.3 |
| Worked >240 h in non-farm (%) | 8.8 | 28.3 | 15.9 | 36.5 |
| <i>For women working >240 h in any work</i> | | | | |
| Hours spent in farm work | 938.0 | 736.0 | 782.5 | 671.0 |
| Hours spent in non-farm work | 255.7 | 644.1 | 386.9 | 742.0 |
| Observations (full sample) | 27,388 | | 27,388 | |

Dhanaraj and Mahambare (2019) Family structure, education and women's employment in rural India, *World Development*, 115,17-29



Dhanaraj and Mahambare (2019) Family structure, education and women's employment in rural India, *World Development*, 115,17-29

Examples of Papers using NFHS

- Dhamija, G., & Roychowdhury, P. (2020). Age at marriage and women's labour market outcomes in India. *Journal of International Development*, 32(3), 342-374.
- Dhanaraj, S., & Mahambare, V. (2022). Male backlash and female guilt: Women's employment and intimate partner violence in urban India. *Feminist economics*, 28(1), 170-198.

Table 1 Percent of currently married urban women ages 15–49 who faced IPV in the last twelve months by their work status: Woman’s questionnaire

| <i>Currently married women</i> | <i>Any violence</i> | <i>Physical violence</i> | <i>Sexual violence</i> | <i>Emotional violence</i> |
|--------------------------------|---------------------|--------------------------|------------------------|---------------------------|
| Not engaged in paid work | 0.200 | 0.168 | 0.036 | 0.083 |
| Engaged in paid work | 0.272 | 0.227 | 0.065 | 0.129 |
| Difference | – 0.073*** | – 0.058*** | – 0.029*** | – 0.046*** |
| SE | 0.007 | 0.007 | 0.003 | 0.005 |

Notes: ***, **, * denote statistical significance at the 1, 5, and 10 percent levels, respectively.

Source: Based on authors’ compilation using NFHS-4 data.

Dhanaraj, S., & Mahambare, V. (2022). Male backlash and female guilt: Women’s employment and intimate partner violence in urban India. *Feminist economics*, 28(1), 170-198.

Table 2 Proportion of women who faced IPV by their gender attitudes: Woman's questionnaire

| | <i>Proportion facing IPV among women who answered “No”</i> | <i>Proportion facing IPV among women who answered “Yes”</i> | <i>Difference</i> | <i>SE</i> |
|--|--|---|-------------------|-----------|
| Woman's attitude toward wife beating: Respondent justifies wife beating if | | | | |
| Wife goes out without telling husband | 0.183 | 0.336 | - 0.153*** | 0.007 |
| Wife neglects the children | 0.177 | 0.324 | - 0.147*** | 0.007 |
| Wife argues with husband | 0.181 | 0.336 | - 0.155*** | 0.007 |
| Wife refuses to have sex with husband | 0.201 | 0.338 | - 0.137*** | 0.009 |
| Wife does not cook food properly | 0.194 | 0.353 | - 0.160*** | 0.008 |
| Wife is unfaithful | 0.193 | 0.312 | - 0.120*** | 0.007 |
| Wife shows disrespect | 0.175 | 0.308 | - 0.133*** | 0.006 |
| Negotiating safer sexual relations: Respondent thinks wife is justified in refusing to have sex with her husband when | | | | |
| She knows her husband has a sexually transmitted disease | 0.245 | 0.211 | 0.034*** | 0.008 |
| She knows her husband has sex with other women | 0.252 | 0.209 | 0.042*** | 0.008 |
| She is tired or not in the mood | 0.247 | 0.209 | 0.038*** | 0.007 |
| Observations | 18,347 | | | |

India Census

- Once in a decade. 26 rounds. Last census in 2011
- First, the housing census (listing of housing, housing conditions, housing amenities), followed by individual data collection like socio-demographic data, economic activity, migration, fertility

Questions on employment (Economic Activity)

- Occupation or means of subsistence of actual workers: Principal/subsidiary Occupation
- Category of the economic activity - (i) cultivators, (ii) agricultural labourers, (iii) household, industry workers, and (iv) non-workers
- Class of workers - Main workers: worked for the major part of the year preceding the date of enumeration
Marginal workers: Marginal workers are those who worked for less than six months, Non-workers
- Model of travel and distance to work, migration

Non-economic activity (household work, student...)

Seeking or available for work

- Useful for estimating village-level or ward level labour market outcomes
- To study residential segregation, where jobs are located, where people are located etc

Table 4.1: Work Participation Rates (%): Census 2011 & NSS 2011-12

| | Total | | Rural | | Urban | |
|----------------|--------|-----------|--------|-----------|--------|-----------|
| | Census | NSS(upss) | Census | NSS(upss) | Census | NSS(upss) |
| Persons | 39.8 | 38.6 | 41.8 | 39.9 | 35.3 | 35.5 |
| Males | 53.3 | 54.4 | 53.0 | 54.3 | 53.8 | 54.6 |
| Females | 25.5 | 21.9 | 30.0 | 24.8 | 15.4 | 13.8 |

Source: RG&CSI (2013) & NSSO (2013, ii)

Enterprise based surveys/census (cover only employed population)

Economic census (1978, 1980,1990, 1998,2005, 2013, 2023 ongoing)

- All establishments engaged in agricultural and non-agricultural activities excluding crop production, plantation, public administration, defence, and compulsory social security
- Data on Number of employees, gender of the owner, location of the establishment

Example paper –

- Samantroy, E., & Tomar, J. S. (2018). Women entrepreneurship in India: Evidence from economic censuses. *Social Change*, 48(2), 188-207
 - 6th EC - Total number of establishments owned by women entrepreneurs was 8.05 million (13.76%). Employed 13.45 million persons (10.24%), out of which 83.19% were own account establishments
 - The largest share in number of establishments under women entrepreneurship was held by Tamil Nadu (13.51%) followed by Kerala (11.35%), Andhra Pradesh (10.56%), West Bengal (10.33%) and Maharashtra (8.25%).

Enterprise based surveys/census (cover only employed population)

Annual Survey of Industries (latest 2019-20)

- Covers all factories that employ at least 10 workers and use power, At least 20 workers and no power.
- Unorganised or informal sector firms are not covered
- Data on female workers employed at firm level in organized manufacturing sector.
- Covers absenteeism; Labour Turnover; Earnings; Employment, and Labour Cost such as Wage/Salary; Bonus; Provident Funds; Welfare Expenses, etc. at the firm level
- **Example Paper** –
 - Banerjee, P., & Veeramani, C. (2017). Trade liberalisation and women's employment intensity: Analysis of India's manufacturing industries. *Economic and Political Weekly*, 52(35), 37-47

Private sector - CMIE

CMIE PROWESS (data on around 50,000 companies, listed/unlisted)

Female company owners, women in top management (CEOs/Directors), Women on board of directors

Other company-level financial and ownership information, 3000+ variables

Example paper - Sanan, N. K. (2016). Board gender diversity and firm performance: Evidence from India. *Asian Journal of Business Ethics*, 5(1-2), 1-18

- Not representative of the economy.
- Large firms are better represented than smaller firms, the informal sector is not present in this database.

CMIE CPHS (household-level, individual level)

From Jan 2014 onwards – A sample of over 160,000 households in each round.

Panel data – each household is surveyed repeatedly over time. Three times a year.

Possible to track double-earner, and single-earner households over time, and if the employment status of women changes

The response rate of 70-75% in recent waves. New households get added in each wave.

Regular attrition of households – e.g. a balanced panel from wave 1 (Jan- Apr 2014) to wave18 (Sep-Dec 2019) has 17% of wave one households (Somanchi 2021)

Multi-stage stratified survey design – the first level covers villages and towns identified under the Census 2011 and households are then identified. Covers all the 640 districts in Census2011

- Dr`eze and Somanchi (2021) and other have raised doubts over the representativeness of CPHS - underrepresents less-educated and poor households.

The CPHS is broken into four sub-databases –

- **People of India** –demographic questions, health parameters among others
Related to work - occupation, employment status, industry, duration of employment, type of employment, employment arrangement, place of work, duration of employment, start time of work. Time use - spent by individuals on work and leisure.
- **Income Pyramids** - Questions in the source of income and the level of income for each household member
- **Consumption Pyramids** - Household consumption expenses for 153 expenditure categories, Household weekly expenses for 33 fast-frequency expenditure categories.
- **Aspirational India** - Ownership and intentions to buy, Savings and intentions to save, Borrowing by purpose and by source of borrowing, Household amenities

The employment question categorises an individual into one of four possible statuses

- (i) Employed
- (ii) Unemployed, willing and looking for a job (unemployed)
- (iii) Unemployed, willing but not looking for a job
- (iv) Unemployed, not willing and not looking for a job. (out of labour force)

Identifies an individual as employed if he/she ‘is engaged in any economic activity either on the day of the survey or on the day preceding the survey or is generally regularly engaged in an economic activity’.

Individuals who were in some form of employment but were not at work on that day of the survey due to various reasons such as illness, leave or holiday are still considered as employed when there is a reasonable surety of them going back to work.

Examples of Papers using CMIE CHPS

- **Deshpande, Ashwini (2020) The COVID-19 Pandemic and Gendered Division of Paid and Unpaid Work: Evidence from India, IZA Discussion Papers, No. 13815, Institute of Labor Economics (IZA), Bonn**

The first month of the national lockdown, April 2020, saw a large contraction in employment for both men and women, where more men lost jobs in absolute terms. For women, the likelihood of being employed is 9.5 percentage points lower than that for men, compared to the pre-pandemic period. Men spent more time on housework in April 2020, but by August the average male hours had declined, though not to the pre-pandemic levels.

- **Maurizio Bussolo, Ananya Kotia and Siddharth Sharma (2021) Workers at Risk: Panel Data Evidence on the COVID-19 Labor Market Crisis in India, World Bank Policy Research Working Paper 9584**

Informal workers were significantly more vulnerable to the loss of employment than initially formal workers during the early phase of COVID-19 (April 2020). The post-COVID employment and income differentials between informal and formal workers narrowed after April 2020. By July 2020, the decline in income (from the pre-COVID baseline of February 2020) was not significantly different across households with informally and formally employed

Comparability of employment-specific estimates EUS/PLFS and CMIE

Jha, M., & Basole, A. (2022). Labour incomes in India: A comparison of PLFS and CMIE-CPHS data. CSE Working Paper #46, Azim Premji University.

Abraham, R., & Shrivastava, A. (2022). How Comparable are India's labour market surveys?. *The Indian Journal of Labour Economics*, 65(2), 321-346.

Table 1 Comparing labour force aggregates from CMIE and official estimates

| | LFPR | | | WPR | | | UR | | |
|--------------|---------|--------|------|---------|--------|------|---------|--------|------|
| | Overall | Female | Male | Overall | Female | Male | Overall | Female | Male |
| 2015-16 LB | 52.4 | 27.4 | 75.5 | 49.9 | 25.4 | 72.6 | 3.7 | 5.8 | 2.9 |
| 2016 CMIE | 46.8 | 15.6 | 74.8 | 43.0 | 12.1 | 70.7 | 8.2 | 22.4 | 5.5 |
| 2017-18 PLFS | 49.8 | 23.3 | 75.8 | 46.8 | 21.9 | 71.0 | 6.0 | 5.6 | 6.1 |
| 2017 CMIE | 44.5 | 13.0 | 72.7 | 41.3 | 10.2 | 69.3 | 7.3 | 21.4 | 5.0 |

All estimates are for individuals 15 years and above. Estimates from LB and PLFS are for Usual Principal and Subsidiary Activity (UPSS). The CMIE samples refer to January-December calendar year, PLFS to a July-June year, and the Labour Bureau survey was conducted between April-December

CMIE-CPHS - the questionnaire is not filled out question by question. The enumerator has a free-ranging discussion with the household head.

Women are overrepresented in that sample of individuals who are in the labour force as per NSS-PLFS but are identified by the CMIE model as being out of the labour force.

CMIE -an urban-skewed sample, underrepresentation of rural and uneducated – also a higher chance of CMIE data classifying them unemployed.

Examples of Independent Primary Surveys

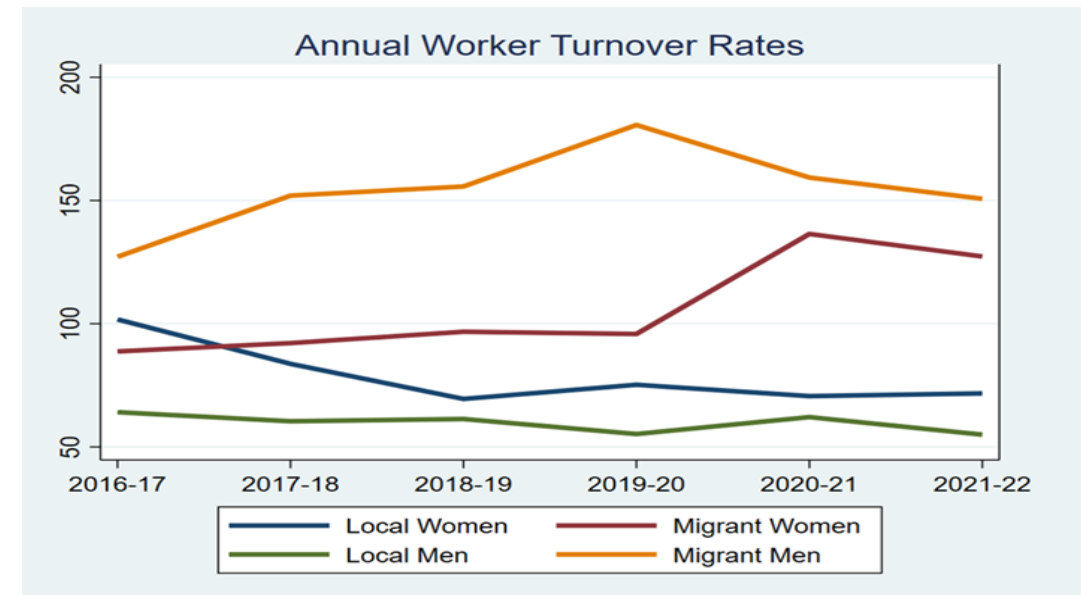
Some primary surveys by independent researchers try to overcome some issues related to measurement errors in the EUS/PLFS while others consider questions that cannot be answered with the official data.

- **The India Working Survey 2020-21** – Azim Premji University, Karnataka, Rajasthan – 3000+ households. one randomly selected male and one randomly selected female respondent from each household, wherever available - interviewed 5951 individuals (3371 women and 2580 men).
- **Desphande and Kabir (WIDER working paper 2021)** Norms that matter - 3701 women in seven districts of West Bengal and was carried out between July and September 2017
- **Afridi, Dhillon, and Roy (WIDER working paper 2021)** - The gendered crisis: livelihoods and mental well-being in India during COVID-19 – pre- and post-pandemic surveys of more than 1500 men and women in Delhi
- **Achyuta Adhvaryu, Namrata Kala & Anant Nyshadham (2018)** The Skills to Pay the Bills: Returns to On-the-job Soft Skills Training, NBER Working paper 24313 - Captures women's continuation in work and career progression, especially for those who are blue-collared – A survey conducted via the Good Business Lab.

Mahambare and Dhanaraj (2023) Insights into Worker Turnover in the Indian textile industry: Pre- and Post-Pandemic Variation by Gender and Labor Mobility, funded by the World Bank South Asia Gender Lab

- Estimates the worker turnover rate (WTR) based on the administrative data from five factories using panel data of over 32,000 workers from 2016 to 2022.
- The WTR of men and women both are around 7.5% per month over this period.
- Migrant women's WTR has increased in the post-COVID period while local women workers' WTR has fallen.
- Women, report issues related to physically challenging work, difficult working conditions, overtime, and shift timings, for their decision to quit.
- The survey results suggest that workers, both men and women consider a textile factory job as a temporary arrangement until they find better work.
- Most women take up work to help family/parents with household finances/repay debt so on

| | Pre-COVID average monthly exit rates | Post-COVID monthly exit rates | difference | p-value |
|---------------|--------------------------------------|-------------------------------|------------|---------|
| All Workers | 7.62 | 7.36 | -0.26 | 0.49 |
| Local men | 5.17 | 4.73 | -0.44 | 0.14 |
| Local women | 6.99 | 5.78 | -1.21** | 0.01 |
| Migrant men | 12.34 | 12.39 | 0.05 | 0.95 |
| Migrant women | 7.75 | 10.38 | 2.63*** | 0.00 |



Some Data Gaps

- Attaching time-use modules to the official labour force/employment surveys would be useful
- Data on job tenure, job attachment(in and out), displaced women workers and re-employment rates are missing
- Data on childcare availability/affordability in urban India is not captured
- Scattered data – e.g. no one survey captures all commuting-related variables – a major concern for women workers, especially in urban areas
- Focus at the top-end of women workers is missing in the official surveys – gender wage gap, hours of work, drop-out/-re-entry rates
- Surveys do not ask/capture the reasons for ‘unemployment/in-out of labour force, data on employment exchange activity, social security and insurance so on
- Rapid surveys as alternative options for labour force surveys for times of crisis

How can better policymaking help in raising women LFPR in India?

Women empowerment plus growth compulsion - In the states such as TN, the aging population structure means the level of young men in work will decline by 2030. It will become necessary to raise young women LFPR to support high growth

- Need to understand **the constraints and the aspirations of women**
 - For example – Would after-school childcare in schools/near schools help rather than in the employer's premises?
- Need to understand the **requirements and viewpoints of employers**
 - For example – the Back to work policy (3-days a week) of the IT companies is resulting in women leaving jobs
 - Factories – nature of job, not feasible to have part time/4 days a week job
- **Need to actively involve men in the discussions!**

THANK YOU

Sources of measurement errors - Importance of recovery questions

- Contrary to ILO recommendations, there are no additional questions ('recovery questions') in the PLFS questionnaire to double-check individuals' labour force status. It relies heavily on how the individual self-identifies in the first instance.
- Due to traditional gender role beliefs, women, especially with low-education, working in family businesses self-identify as housewives and therefore do not answer affirmatively when asked about their engagement in work for pay or profit.
- ILO recommends using multiple probing or recovery questions such as "*whether the person helped in the family business*" and "*whether the person worked in own business in last one week/year*" and "*whether person helped the family with job*".
- In a World Bank and ILO study in Sri Lanka, such methodological issues accounted for close to eight percentage point underestimation of the female employment-to-population ratio.
- India Working Survey - Karnataka and Rajasthan (2020) - the recovery question increased the estimates of women's work by 9 to 11%

The recovery question - "Did you miss out reporting any work activities that led to you earning an income, or helping household members with an activity that generates an income even if only for one hour?"

Measurement error - Using broad categories

If the production of primary goods is not identified as the main activity by the respondent, the PLFS questionnaire categorises women who do both domestic activities and primary goods production/collection into ‘Activity Code 93,19 and thus OLF

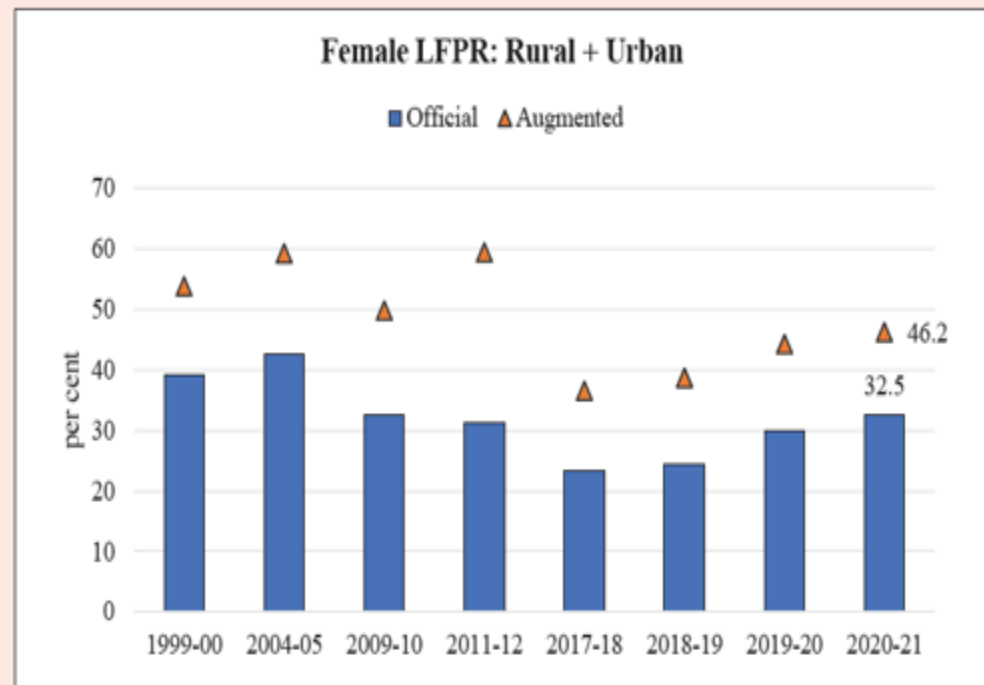
- Muller and Sousa (2020) find women apply far more stringent definitions when identifying employment compared to men

NSSO Activity code 93 -*engaged in domestic duties and also engaged* in free collection of goods (vegetable, firewood, cattle feed, etc.), tailoring, etc. for household use”.

- Adding the proportion of women in Activity code 93 to the official LFPR yields an “Augmented Female LFPR” of 46.2% for FY21 for ages 15 years and above, relative to the official estimate of 32.5% .

The Economic Survey 2022-23 recommends listing a pre-defined set of activities to eliminate underreporting. Suggest that NSS studies TUS more carefully to list distribution of various SNA activities in a day for women, along with the time taken.

- Deshmukh et al. (2021) find that asking women about their activities rather than status (employed or not) significantly increased employment estimates.



Source: NSS Employment Unemployment Survey (NSS-EUS) for 1999-00 to 2011-12, PLFS from 2017-18 to 2011-12.

Augmented FLPR calculations estimated using NSO data

Note: 1. Usual activity (ps+ss) status (for age group 15 years & above) in per cent
2. NSS-EUS and PLFS may not be comparable, given different sampling weights, frequencies, and data collection techniques.

Translation matters..

The World Bank Study on Sri Lanka - Two rounds of the survey with the same sample

Some of the difficulties in measuring farming work in wave 1 were found to be a result of not using everyday Sinhalese terminology for some of the farming-related questions.

The wave 2 questions avoided abstract terminology (e.g., “own account crop farming”)

Opted for simpler terms with examples (e.g., “work on a family farm to prepare or maintain the land, or to plant, grow or harvest any crops vegetables or fruits”)

Using experienced enumerators

The PLFS is being conducted by trained but contractual investigators, while the regular permanent field staff is involved in other surveys.

Labour force surveys are a complex exercise, and the experienced staff should be used to collect data.

Who answers the question

India Working Survey 2020, APU – Women over report men’s work and men underreport women’s paid work