

# Tracking Women's Unpaid Contributions: A Comparative Study Using India's Time Use Surveys, 1998–2024

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## Abstract

Unpaid domestic and care giving work by women is still an economic and societal staple in India, but it has always been miscalculated and undervalued. Such unpaid work has been undertaken predominantly by women, largely due to their constrained position in the labour market and their limited participation in formal market production. To bring this 'invisible labour' into clearer focus, the National Statistical Office (NSO) conducts Time Use Surveys. These surveys provide crucial empirical evidence for understanding the scale, value and socioeconomic implications of women's unpaid work within the broader development discourse. This study examines the extent and patterns of unpaid domestic and care work performed by women in India using data from the Pilot Time Use Survey (1998–1999), the Time Use Survey (2019), and the Time Use Survey (2024). It offers a comprehensive analysis of long-term trends in women's time allocation and highlights variations across different socioeconomic dimensions. The findings highlight the persistent burden of unpaid work on women and underscore the need for policies that recognize, reduce, and redistribute unpaid care work to support gender-equitable economic participation. The analysis shows that Indian women regularly dedicate an extremely huge proportion of their time to unpaid household chores - about 5 hours a day - throughout the 26 years period, and only slightly reduced over the period. Women have never been paid to be caregivers, and in reality, the burden of unpaid caregiving has increased over the past few years with women dedicating more time to care work in 2024 than they spent in 2019.

**Keywords:** Unpaid work, Time Use Survey, Household work, Care work

## INTRODUCTION

The concept of work is categorized into 'paid work' and 'unpaid work.' Paid work includes hours worked in various sectors, while unpaid work involves providing domestic services for personal use, caregiving for household members, and community assistance without direct compensation, as outlined in the Human Development Report (2015). In essence, unpaid work consists of activities performed without monetary remuneration. The issue of women in unpaid labor was highlighted in United Nations conferences, notably in 1995 with the 'Women and Development Report.' Studies showed that women consistently devoted more hours to work than men but received less economic compensation. Unpaid domestic and care work, predominantly performed by women, is essential yet often overlooked in economic assessments. Estimates indicate women spend approximately three times more on unpaid domestic work than men. This imbalance, commonly termed as the gender gap in unpaid labour is particularly high in South Asia. In Asia-Pacific, as an example, women do about four times more hours of unpaid labor as compared to men. Women's unpaid labor is vital to the Indian economy, yet traditional labor surveys overlook

it due to cultural norms that confine women to household and caregiving roles. Feminist scholars emphasize the inadequacy of these surveys, advocating for time-use studies to properly document unpaid work. The 1998-99 Time Use Survey, conducted by the Central Statistical Organisation, was a pioneering effort, revealing that women dedicated about 34.6 hours weekly to unpaid domestic and caregiving tasks, while men contributed merely 3.6 hours. This stark disparity quantitatively affirmed previous qualitative findings regarding the disproportionate burden of unpaid labor on Indian women. The National Statistical Office (NSO) conducted the first all-India Time Use Survey (TUS) in 2019 after 20 years, covering over 138,000 households and nearly 450,000 individuals across all states and union territories. This survey provided insights into how Indian men and women allocate their time to various activities, particularly unpaid work. A second TUS was executed in 2024 with data from January to December, allowing for a comparative analysis against the 2019 results. Together with the 1998-99 pilot survey, these datasets offer a longitudinal perspective on the trends in women's unpaid work over 26 years, focusing on household roles. Through the analysis of domestic household work (cooking, cleaning, and other daily housework) and unpaid caregiving work (caring of children, elderly and sick or disabled relatives), we will create a complete image of Indian women, regarding their unpaid labor. One of the specific focuses is the comparison of the rural and urban trends because of the disparities between the infrastructure system, social support systems, and labor market opportunities that could influence the burden of unpaid work.

### Research Objectives

The following are the research objective that will guide this study:

1. To analyse the trends and changes in women's unpaid work in India.

## LITERATURE REVIEW

The literature on unpaid work and its gender aspects is extensive, covering both global and Indian contexts. Feminist economists argue that unpaid care and domestic work should be recognized as productive labor essential for fostering societal well-being and economic stability. Initial theoretical literature 'the Becker's model of allocation of time' (Becker, 1965) recognized at the time that households generated services such as clean clothes, cooked meals, childcare that are necessary to support the labor force. But feminist scholarship was the one to point out so vociferously the extent to which the load of this household production is placed on women, confirming economic inequality (Folbre, 1994; Elson, 2000). Unpaid labor keeps families afloat and reproduces the labor force ("social reproduction), but it is never included in such indices as GDP and usually goes unnoticed (Benería, 1999). Preliminary time-use data in India indicates that traditional labor force surveys have underestimated women's participation in the workforce (Hirway and Jose, 2011). An example is that the pilot survey (Time Use Survey 1998-99) has included extended SNA activities (household maintenance and care), which doubled estimates of women work participation and working hours (Hirway, 2010). Gender disparities in unpaid work persist globally, with women spending nearly five hours daily on household and care activities, while men's contributions are minimal, according to 1998–1999 data analysis (Neetha & Palriwala, 2010). Women around the world undertake three times as much unpaid care work as men - 76 percent of the total hours - and the figure is even higher in Asia-Pacific. Inequality in unpaid work is linked to women's low labor force participation and earnings (ILO, 2018). The absence of recognition and redistribution of care duties is one of the main obstacles to empower women economically (Kabeer, 2013). The resulting *time poverty*—a shortage of discretionary time due to excessive unpaid labor—further restricts women's opportunities for education, rest, and income generation

(Agarwal, 2018). Studies show that during the 2000s and 2010s, rising household incomes and gender norms led many rural Indian women to leave paid work but continue unpaid household and family labor (Dasgupta & Verick, 2016). The economic valuation of unpaid work has emerged as a significant area of feminist economic research. Although India has not yet incorporated unpaid labor into GDP calculations, estimates suggest that monetizing women's unpaid work even at minimum wage rates would account for approximately 7.5 percent of India's GDP (OECD, 2021). Studies on *time poverty* further reveal that excessive unpaid workloads are linked to stress, poorer health outcomes, and limited opportunities for skill development, education, and social participation (Chopra & Zambelli, 2017). Policy-oriented literature highlights that recognizing and reducing women's unpaid labor is essential for achieving gender equality and sustainable development goals (United Nations, 2015). Effective strategies include expanding public childcare and eldercare services, improving access to water and clean energy, promoting labor-saving technologies, and encouraging men's participation in domestic work (UN Women, 2021). Despite modest progress, women in India continue to bear a disproportionate share of unpaid household labor, sustained by structural and cultural norms. Persistent inequalities underscore the need for evidence-based policy interventions supported by time use data.

## METHODOLOGY

The study employs a longitudinal comparative design, utilizing repeated cross-sectional survey datasets to analyse trends in unpaid work and time-use behaviour without tracking the same individuals over time. It focuses on changes based on various demographic factors, including gender and rural-urban residence, by comparing multiple survey rounds. Key data sources include the National Statistical Office's Time Use Surveys, particularly the 1998–99 pilot and the 2019 survey, along with 2024 survey to enhance the time frame analysis. These surveys provide detailed 24-hour activity classifications to measure paid work, unpaid domestic and caregiving tasks, and non-market activities for both rural and urban demographics. The analysis targets women aged 15 and above. To achieve its objectives, the study will analyse women's participation rates in unpaid work, present average daily time spent using descriptive statistics compare time use across rural and urban women. This study analyzes the daily average time women spend on unpaid domestic and care activities, categorized by age, marital status, and education level. A linear trend model is utilized to assess changes over time in the direction and scale of women's unpaid work, indicating whether the time spent is increasing or decreasing among various socio-economic groups

### Time Analysis of Women Unpaid Work: Household Activities

Indian women still take up a colossal amount of time on unpaid domestic work and this has not changed significantly over the last 25 and half years. Table 1 will give a summary of how much time women spent at home on household work per day in 2019 and 2024, with indicative values of 1998 pilot.

**Table 1:** Average Time (In Minutes) Spent by Women on Unpaid Work

Year	All Women	Rural Women	Urban Women
1998–99 (pilot)*	297	291	312
2019	280	284	268
2024	283	285	277

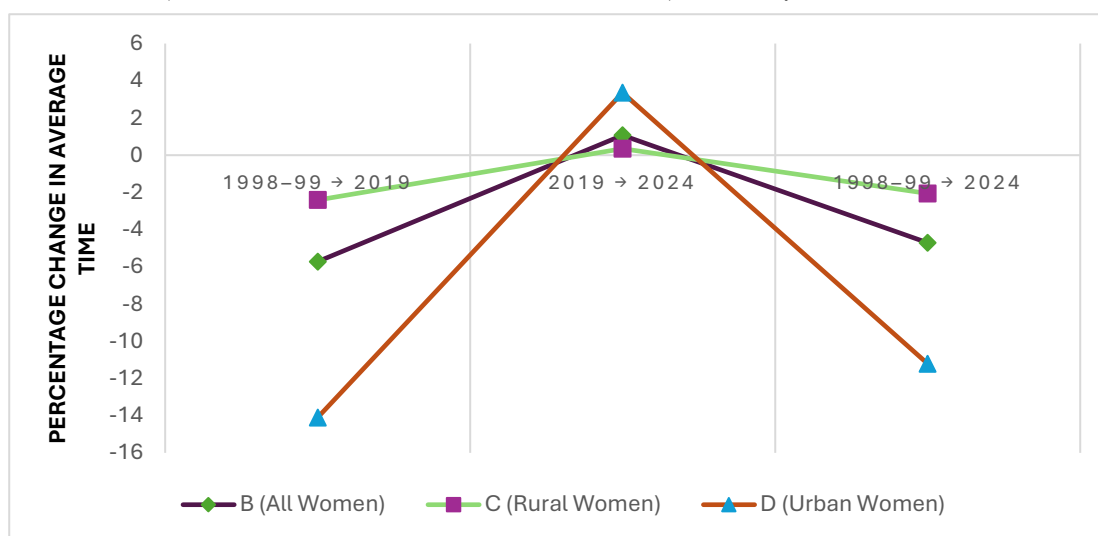
Sources: Time Use Survey 1998–99 (Gol pilot) and TUS 2019 & 2024 results.

(Domestic Activities + Care Activities) Per Day

\*1998–99 data from six states (pilot survey); rural/urban breakdown not available in published form (variations were reported to be small). Figures for 2019 and 2024 are all-India averages.

By 1998 women were already devoting about 5 hours (297 minutes) a day to house work. By 2019, evidence of a slight decline can be found, as women spend approximately 280 minutes per day; however, it increases in 2024 to 289 minutes per day. In the long run, the change experienced since around 1998 to 2024 is not much - in fact, the time spent by women doing housework has been at approximately 5 hours a day with slight fluctuations in the recent past.

**Fig 1:** Trend Analysis of Average Time Spent by Women on Unpaid Work (Domestic Activities + Care Activities) Per Day



Source: Developed by Author

Women's unpaid labour has decreased overall between 1998–1999 and 2024, however the amount varies greatly by region. The net fall for all women was 4.71 percent, while the reduction for rural women was only 2.06 percent, underscoring the ongoing burden of unpaid labour in rural homes. Urban women saw the biggest total reduction (11.22 percent), indicating significant differences in socio-economic conditions.

**Table 2:** Average Time (In Minutes) Spent in A Day Per Person on Unpaid Work (Domestic Activities + Care Activities)

Year	Male	Female
1998- 99 (Pilot)	31	297
2019	36	280
2024	37	283

Sources: Time Use Survey 1998–99 (GoI pilot) and TUS 2019 & 2024 results.

The Time Use Survey (TUS) data clearly shows that while men are slowly entering household work, women's share remains overwhelmingly higher. In 1997, women invested an average of 297 minutes a day on unpaid household work, while men only spent 31 minutes. Women's time was reduced to just 280 minutes some 20 years later in 2019 - but it still dwarfed by comparison men's 36 minutes. However, in 2024 men spent about 37 minutes doing housework, and women's time was somewhat shortened to around 283 minutes. Even after falling slightly over time, women still do a disproportionate share of

unpaid household labor. The ratio of women's to men's domestic work remains around 7.67 to 1, showing persistent gender inequality in household labor. Over time, however, this gender gap has narrowed, falling to about 7.7–7.8 times at present in the year 2019 and 2024, a despite slow convergence toward equality. Among other reasons it is thanks to a modest increase in men's participation in unpaid labor rather than any dramatic decrease for women willing to do that kind of work.

### Time Analysis of Women Unpaid Work: Domestic Activities

The fact that women continue with heavy domestic work is shocking. This has been long known by way of qualitative evidence and smaller surveys, which have reported that Indian women generally spend a number of hours per day cooking, cleaning, washing clothes and shopping for house. The statistics reveal a significant prevalence of this type of unpaid domestic work among women, spending approximately 3.75 hours per day on it in 1998, which increased slightly to 4 hours in 2024. An econometric time-trend analysis utilizing secondary data from 1998–1999 (Pilot), 2019, and 2024 was conducted to examine the long-term patterns of women's unpaid domestic activities. The study analyzes the average daily minutes spent by women, categorized by age group, marital status, and education level, on shopping, household administration, and upkeep. The following is the econometric specification:

$$U_t = a + \beta t + \varepsilon_t$$

Where:

$U_t$  = Average minutes per day spent on unpaid domestic activities

$t$  = Time (1998-99 = 0, 2019 = 21, 2024 = 26)

$a$  = Intercept

$\beta$  = Annual trend (minutes per year)

$\varepsilon_t$  = Error term

**Table 3:** Trend Estimates of Time Spent on Unpaid Work (Domestic Activities) Across Selected Socio-Economic Characteristics During the Period 1998–2024

Category	Group	$\alpha$ (Intercept)	$\beta$ (Trend Coefficient)	Annual Change (Minutes)	Nature of Trend
<b>Age Group</b>	15–59 Years	322	–0.65	–0.65	Declining
	16 Years & Above	225	0.08	0.08	Nearly Stable
<b>Marital Status</b>	Never Married	175	0.12	0.12	Slight Increase
	Currently Married	345	–0.15	–0.15	Very Slow Decline
<b>Education Level</b>	Illiterate	292	–0.27	–0.27	Declining
	Literate Below Primary	280	0.46	0.46	Increasing
	Primary	291	0.85	0.85	Increasing
	Middle	303	0.62	0.62	Increasing
	Secondary & above	309	0	0	No Change

Source: Based on Secondary data analysis by the Author

Women aged 15–59 experienced a slight annual decrease of 0.65 minutes in unpaid home labor over 26 years, reflecting a limited decline. However, women aged 16 and older continue to engage in unpaid work, indicating the persistent nature of household duties. Marital status significantly influences this labor, with married women spending more time on unpaid tasks than single women, and showing minimal annual reduction. Additionally, trends reveal that women with primary and medium education levels have increased unpaid work time, while those with secondary and higher education show a zero-trend coefficient, suggesting no long-term reduction in unpaid labor associated with higher education levels. Despite rising workforce participation, most women still manage household duties due to cultural norms, unless supported by family, paid help, or improved services and technology.

### Time Analysis of Women Unpaid Work: Caregiving Activities

Care work is predominantly undertaken by women, particularly those with young children, elderly parents, or sick relatives. Recent data shows an increase in the number of women engaging in unpaid caregiving activities daily. Approximately, in 2019, 32.8percent of women (15-59) engaged in unpaid household caregiving. This participation rate then increased to 41.0 by 2024. It is an increase of 8 percentage points, which means that two out of five women are now finding time to attend to care on an average day.

**Table 4:** Trend Estimates of Time Spent on Unpaid Work (Caregiving Activities) Across Selected Socio-Economic Characteristics During the Period 1998–2024

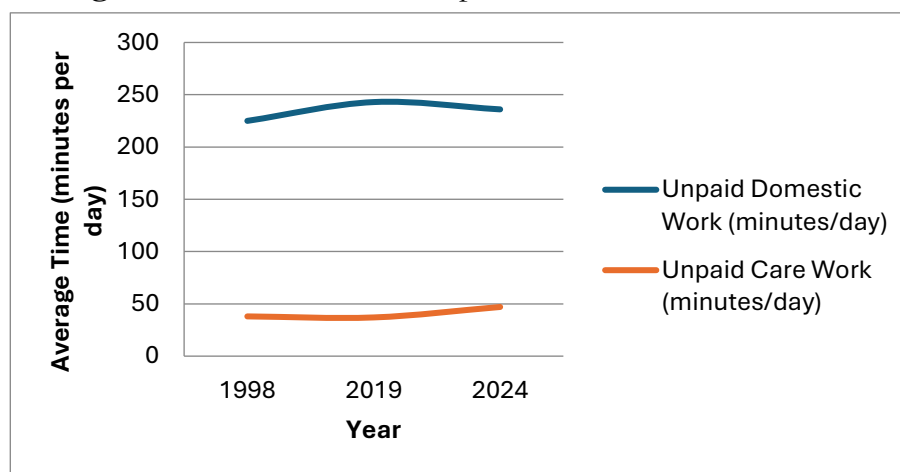
Category	Group	$\alpha$ (Intercept)	$\beta$ (Trend Coefficient)	Annual Change (Minutes)	Nature of Trend
Age Group	15–59 years	104	1.38	1.38	Increasing
	60 years & above	131	–0.54	–0.54	Decreasing
Marital Status	Never Married	89	0.12	0.12	Mildly Increasing
	Currently Married	107	1.5	1.5	Strongly Increasing
Education Level	Illiterate	110	0.71	0.71	Increasing
	Literate Below Primary	100	1.09	1.09	Increasing
	Primary	101	1.34	1.34	Increasing
	Middle	105	1.31	1.31	Increasing
	Secondary & above	103	1.99	1.99	Strongly Increasing

*Source: Based on Secondary data analysis by the Author*

Table 4 shows a linear trend analysis of women’s unpaid work over the period 1998–99 to 2024. Trends show a rising concentration of unpaid care work among women aged 15–59, averaging an increase of 1.38 minutes annual, primarily due to childcare and household management. While aggregate statistics for women aged 16 and above indicate a decline, this masks the intensifying burden on younger women. Married women face the highest increase in unpaid care work (1.50 minutes), signifying the influence of marital status on gendered time allocation. In contrast, burdens for never-married and widowed/divorced women remain stable, reinforcing the link between unpaid care and family structures.

Educational levels present a mixed scenario; illiterate women experience slight reductions in household chores, whereas those with at least primary education see increases, indicating education does not resolve gendered norms in household labor. The findings underscore an "invisible economy" where unpaid work is predominantly shouldered by married, working-age women, highlighting the need for policies that acknowledge unpaid work in the context of long-term development goals like Vision Bharat 2047.

**Fig 2.** Trend of Women's Unpaid Domestic and Care Work



Sources: Time Use Survey 1998, 2019 and 2024 results.

On the whole, the trend of unpaid caregiving work by women is increasing unlike the domestic chores, which increased or decreased rather slowly. There are more women doing care, and those women who are doing care are spending a bit more time doing care. This qualitatively concerns a triple burden on certain women, when a woman works, does the housework, and gives much care her total workload may be *overwhelming*.

## Findings

A comparison of the years 1998, 2019, and 2024 brings out several important insights. Examining the pattern of unpaid work carried out by women between 1998 and 2024 shows that there has been only a slight overall shift over time. Although there is some reduction, the change is not very substantial. This modest decline can largely be linked to evolving lifestyles and the growing use of modern appliances and technologies that make household work easier.

Looking at percentage changes, the time women spent on unpaid work in India increased notably from 1998–99 to 2019, but then declined by 2024. The rise was especially visible among rural women, with an increase of around 5 percent, followed by a comparatively sharper drop in later years. Urban women, on the other hand, experienced only minor variations of about 2 percent. These patterns align with findings from the National Time Use Survey, which highlights that women continue to shoulder a heavy unpaid workload. The slight reduction after 2019 may be associated with greater engagement of women in paid employment or shifts in how they allocate their time.

A comparison between men and women clearly shows that the gap in unpaid work has remained consistently large throughout the years. In 1998–99, men spent about 31 minutes daily on unpaid work, whereas women devoted nearly 297 minutes. By 2024, men's contribution increased marginally by 6 minutes per day, while women's time reduced by only 14 minutes. Despite these small changes, the difference remains striking, reinforcing that unpaid domestic and care responsibilities continue to fall predominantly on women. For women aged 15–59, there is a slight reduction in time spent on household tasks, while time dedicated to caregiving has increased. When marital status is considered, unmarried

women show a small rise in both domestic and caregiving work. Newly married women, however, exhibit a minor decline in household work (around  $-0.15$  minutes annually), while their caregiving time increases by more than 1.5 minutes per year on average.

Education levels do not appear to significantly reduce women's unpaid workload. In many cases, higher education is associated with either stable or increased time spent on domestic responsibilities. This trend is even more noticeable in caregiving activities.

Overall, women's unpaid domestic work rose steadily until 2019 and then began to decline. This downward trend may be due to increased workforce participation and access to labour-saving household technologies. However, caregiving responsibilities show the opposite pattern—declining until 2019 but rising continuously from 2019 to 2024. This suggests that even if domestic chores have slightly reduced, the burden of caregiving on women is becoming heavier over time.

## CONCLUSION

The comparative study of the surveys on time use conducted in India indicates that it is the tale of gradual transformation within the context of persisting inequalities. The amount of unpaid work women perform in their homes such as cooking, cleaning houses, and taking care of family members also is an enormous but undervalued form of work. The surveys are an effective flashlight, which is enlightening the shadow economy of care, which has been there all along. In the context of the inclusive development of India and gender equality, it is impossible to address the problem of unpaid work. The above insights into the policy indicate a multipronged solution, namely, alleviating the monotony with the help of infrastructure, distributing the workload with the help of services and the involvement of men and the importance of caring in the policy and planning. The 2024 TUS in their tagline mentioned: "greater recognition of caregiving... in Indian families" which is a positive indication that there is increasing awareness. That awareness now must be brought into reality. India can liberate millions of women to further education, paid work, leisure and publicity by decreasing and redistributing their unpaid labor, thus releasing all the potential they have not only to themselves, but also to the improvement of the nation.

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