Unpaid Domestic Work: Evidence From The Indian Time Use Survey 2019

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Abstract

Unpaid domestic work is a pervasive issue around the world as its burden disproportionately falls on women due to the gender norms and expectations of our society. This paper provides evidence of such disproportionate burden in the Indian context using the Time Use Survey of India 2019. It also identifies a positive association between unpaid caregiving services by women part of the labour force and their highest level of education. The results, while being counter-intuitive, are not spurious and find support in past literature.

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[1]Disclaimer: This paper has been prepared as a part of the probationary training for Indian Economic Services (IES). The content of this paper is based on research and analysis conducted by the author in an academic or professional capacity and is intended for informational purposes only. The views and opinions expressed in this paper are those of the author and do not reflect the official position or policy of the Government of India.

1 Introduction

Unpaid domestic work refers to the unpaid labour typically performed within households, such as cooking, cleaning, childcare etc. These tasks are not considered economic activities since they take place outside the market and involve no monetary transactions whatsoever, hence it is difficult to impute its value in monetary terms. This is one of the major reasons why this kind of work is undervalued and even goes unrecognized at times, despite the crucial role it plays in maintaining households and even human capital. Activities like childcare, feeding household members, etc. facilitate development and sustenance of human capital in the form of working population as well as children which would become assets to economy in the future. Moreover, we live in a patriarchal world where, gender roles and expectations are deeply ingrained in most societies and women are expected to take on majority of household tasks and responsibilities while men are viewed as the primary bread-earners for any household. The representation of men as breadwinners and women as caregivers perpetuates a 'gendering' ideology that distorts and limits human potential and narrows the range of experiences of 'being' and 'doing'. As a result, women who perform unpaid domestic work often face challenges and disadvantages in their personal and professional lives. This issue of unpaid domestic work undertaken by women remains a pervasive issue that affects women around the world. If we are to make further progress towards gender equality, we must address the fact that it is neither "normal" nor "natural" for either men or women to limit themselves within these conventional roles. To address this issue of unpaid domestic work by women, it is important to recognize and value the contributions of women who perform this work. This can include providing compensation and benefits for domestic unpaid workers, as well as implementing policies and programs that support women in their domestic and caregiving roles. It is equally crucial to work towards achieving gender equality in all aspects of life, including in households, workplace, and in broader society. This paper attempts to analyse the trade-off between paid and unpaid work stemming from this disproportionate burden of unpaid domestic work on women in the Indian context. It also aims to identify various associations of such work with household-level and individual-level characteristics such as number of dependents, level of education, & marital status.

2 Literature Review

The prevalence of a trade-off between paid and unpaid work for women has also been brought up by a large section of literature on the matter. One study states that the gender gap in unpaid care work has significant implications for women's ability to actively take part in the labour market and the type/quality of employment opportunities available to them [1]. Time is a limited resource, which is divided between labour and leisure, productive and reproductive activities, paid and unpaid work. Thus, there exists a trade-off with productive work and skill development being the opportunity cost of unpaid work.

Another paper also explores the connection between unpaid care work and paid work, and its implications for gender equality and economic development [2]. The author argues that the invisible and undervalued nature of care work has far-reaching consequences for women's labour force participation, wages, and career advancement opportunities using CMIE household panel data.

The impact of this trade-off is not limited to individual women but does impact an economy on a macro level. Women particularly have withdrawn from the labour market due to rising incomes to join unpaid domestic activities such as weaving, tailoring, gathering free goods, domestic services, etc [3]. One major conclusion of the paper is that the missing labour force is not really missing—it is not moving out of the labour force. They move to sectors which are "difficult to measure" by NSSO surveys. Their participation and the time spent by them on these activities is not negligible if proper methods for data collection are used. This "non-missing labour force" needs to be covered under employment policies, as they are a part of the labour market. Time-use surveys, which capture information on how people allocate their time across different activities, can provide a more accurate picture of women's work and its value to the economy.

Based on primary data from a large household survey in seven districts in West Bengal in India, a particular study analyses the reasons underlying low labour force participation of women [4]. It tries to disentangle the intertwined strands of choice, constraints posed by domestic work and care responsibilities, and the predominant understanding of cultural norms as factors explaining the low labour force participation as measured by involvement in paid work by NSSO.

The authors concluded from their survey that the cultural norms relating to the gender division of unpaid labour appeared to have much greater

significance. Not only were women's unpaid domestic responsibilities far more significant in constraining conventional labour force participation, but substantial unmet need for paid work was found among women outside the labour force on terms that would allow them to manage their household responsibilities. This resilience of cultural norms governing the gender division of unpaid labour is relevant beyond West Bengal as well and continues to constrain women's employment in India and across the globe.

Contrary to the above findings, there exists some literature that contests the prominent narrative that women voluntarily drop out of the labour force due to increases in household income or conservative socio-cultural norms. They suggest that India needs to focus on creating more jobs for women in order to retain them in the labour force.

Literature also documents the frequent short-term entry and exit of women from the labour force for reasons unrelated to marriage, caregiving, and change in household incomes [5]. This is inconsistent with the idea that women are voluntarily dropping out of the labour force; instead, it suggests that supply-side reasons cannot be the primary explanation for the fall in labour force participation of women. The results also suggest that frequent transitions in and out of the labour force lead to the underestimation of female LFPR. The authors stated that even with a restrictive definition of employment, without counting women's productive work in household enterprises, 44 percent of women were in the labour force at least once during the four-year period, which is far higher than any official estimate that does not consider such short and scattered periods of economic activity. Such frequent transitions in the labour force status of women, and their recurring and transient exits out of the labour force, both in urban and rural areas, suggest the unavailability of regular and steady employment opportunities for women.

3 Research Question

1. Identifying the trade-off faced by Indian women between time spent on unpaid domestic work and paid work.

2. Analyzing the relationship between unpaid activities performed by women and their level of education and marital status.

4 Data and Methodology

The paper uses unit-level data from the Indian Time Use Survey. The National Statistical Office (NSO), Ministry of Statistics and Programme Implementation, Government of India, conducted the Time Use Survey in India for the first-time during January to December 2019. This survey covered 1,38,799 households (rural: 82,897 and urban: 55,902). Information on time use was collected from each member of age 6 years and above of the selected households. The survey enumerated 4,47,250 persons of age 6 years and above (rural: 2,73,195 and urban: 1,74,055). Data was collected for one day in a week in a 24-hour time diary—from 4 am to 4 am the next day—using face-to-face interviews. This time diary was divided into 30-minute time slots and each time slot collected at the most three activities, and only those activities on which 10 minutes or more were spent were recorded.

The survey collected data on various activities, including unpaid domestic work, undertaken by women. The primary objective of Time Use Survey (TUS) was to measure participation of men and women in paid and unpaid activities. It is an important source of information on the time spent in unpaid care giving activities, unpaid volunteer work, unpaid domestic service producing activities of the household members. The components of interest for this research exercise are 'Unpaid domestic services for household members' and 'Unpaid caregiving services for household members' and the respective two-digit activities (childcare, care for dependent adults etc.) in each of them. By combining both these components we can determine the total time spent in a day (in minutes) by each individual on unpaid domestic work including caregiving activities.

To analyse the associations of different individual-level and household-level characteristics with different components of unpaid domestic work we run multiple linear regression models using ordinary least squares and standard errors clustered at state level. These regressions are run for women who are a part of labour force for assessing how unpaid domestic burden relates to various variables for this cohort. This would facilitate future policy attention in appropriate direction to increase female labour force participation and ensure better opportunities for women. Some controls used in the model include household size, religion, social group and sector with our primary covariates being highest education level, number of dependents (adult and children) in the household, and marital status.

	Number of Women	Number of Men	Total
Rural	134,319	137,730	272,049
Urban	84,207	88,914	173,121
Employed	42,599	145,618	188,217
Attending Domestic Duties Only	90,363	2,130	92,493

Figure 1: Data Insights

5 Results

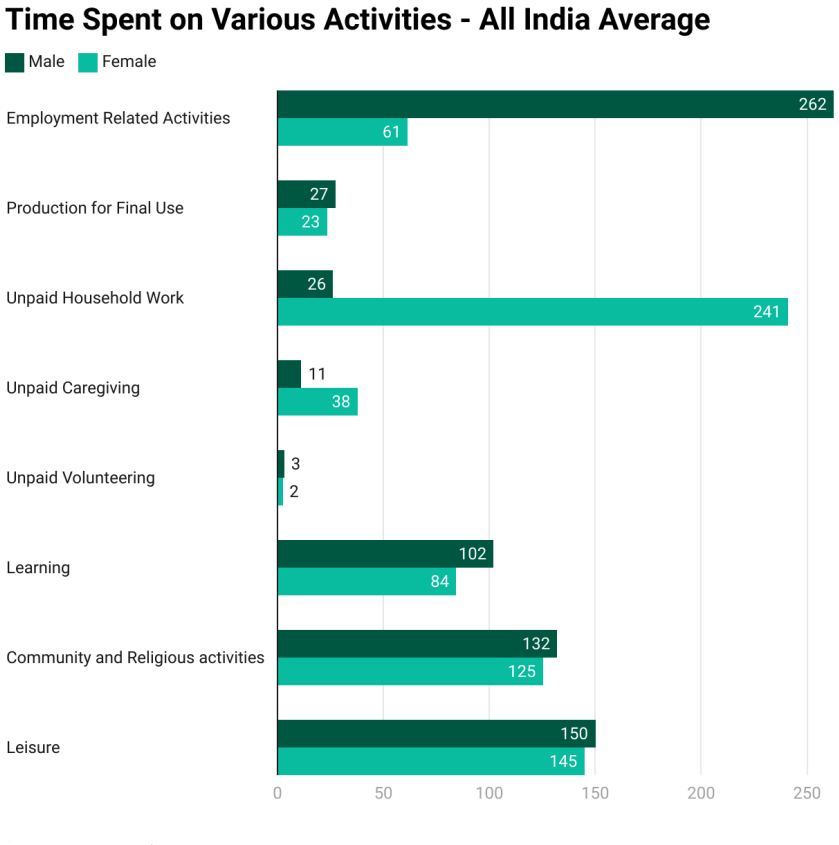

Figure 2: Average Time Spent

Figure 2 illustrates the average time spent by females and males on various activities in India. The bar graph shows that there exists significant gender disparities, with females spending significantly more time on unpaid domestic and caregiving services, while the male counterparts dominates the paid employment related activities. While the time spent on Leisure and Community & Related activities is nearly balanced. However Males spent more time on learning compared to female.

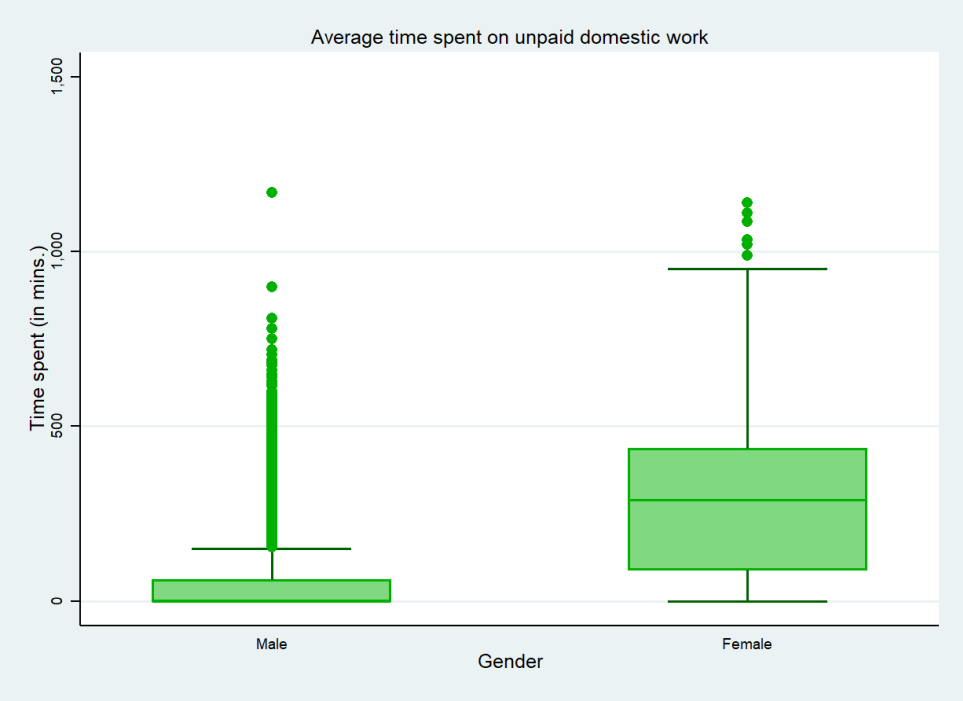

Figure 3: Average Time Spent on Unpaid Domestic Work

The box plot in Figure 3 confirms that there is a significant difference between the average time spent doing unpaid domestic work by Indian men and women. Although men's median time is minimal, with few outliers crossing 500 minutes, women's median time is substantially higher, highlighting their disproportionate burden. Also, the interquartile range for women is broader as compared to men, reflecting greater variability in their unpaid work hours.

Figures 4 and 5 show that there is no difference in the situation even when we consider the employment status of the individuals. There is a minor reduction in the difference between the time spent on unpaid domestic activities by men and women when we consider individuals to be part of the labor force. But even then, men are only spending about 1/6th of the time of what women spend on such work.

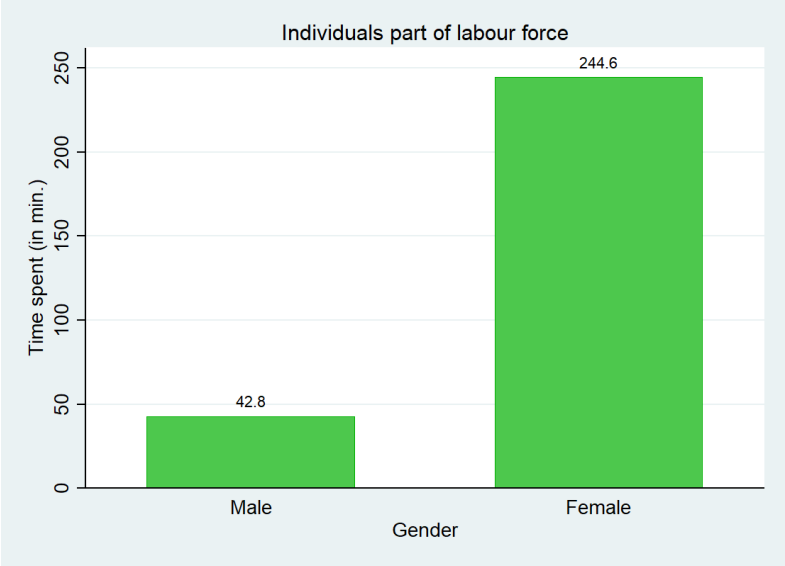

Figure 4: Individuals part of labour force

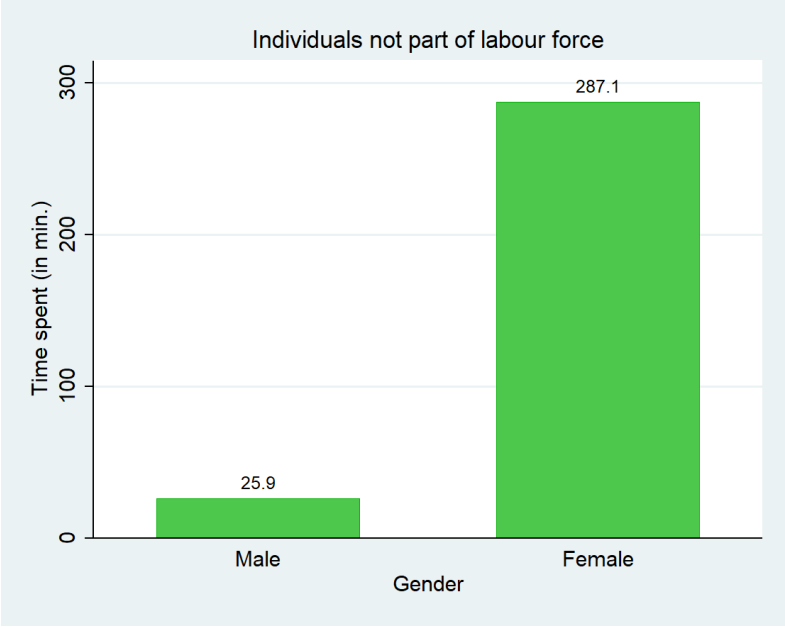

Figure 5: Individuals not part of labour force

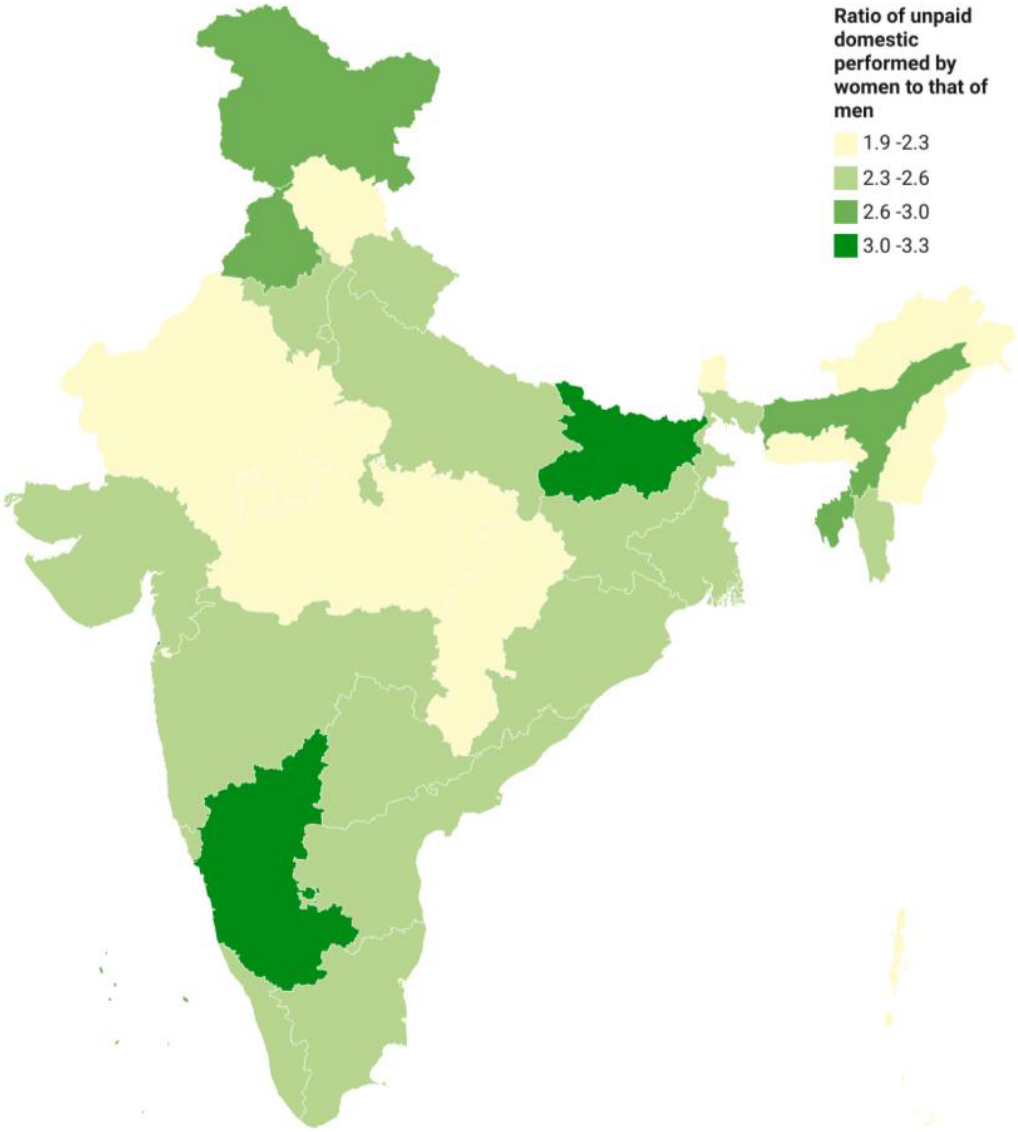

Figure 6: Spatial Distribution of Disproportionate burden on Women

Figure 6 provides an overview of the interstate variations in the burden of unpaid domestic work with Bihar and Karnataka experiencing the largest disparity as women spend more than three times more time on unpaid domestic work compared to men. However, states like Madhya Pradesh, Chattisgarh, and Rajasthan have a relatively lower ratio, indicating comparatively lesser gender disparity in unpaid domestic work.

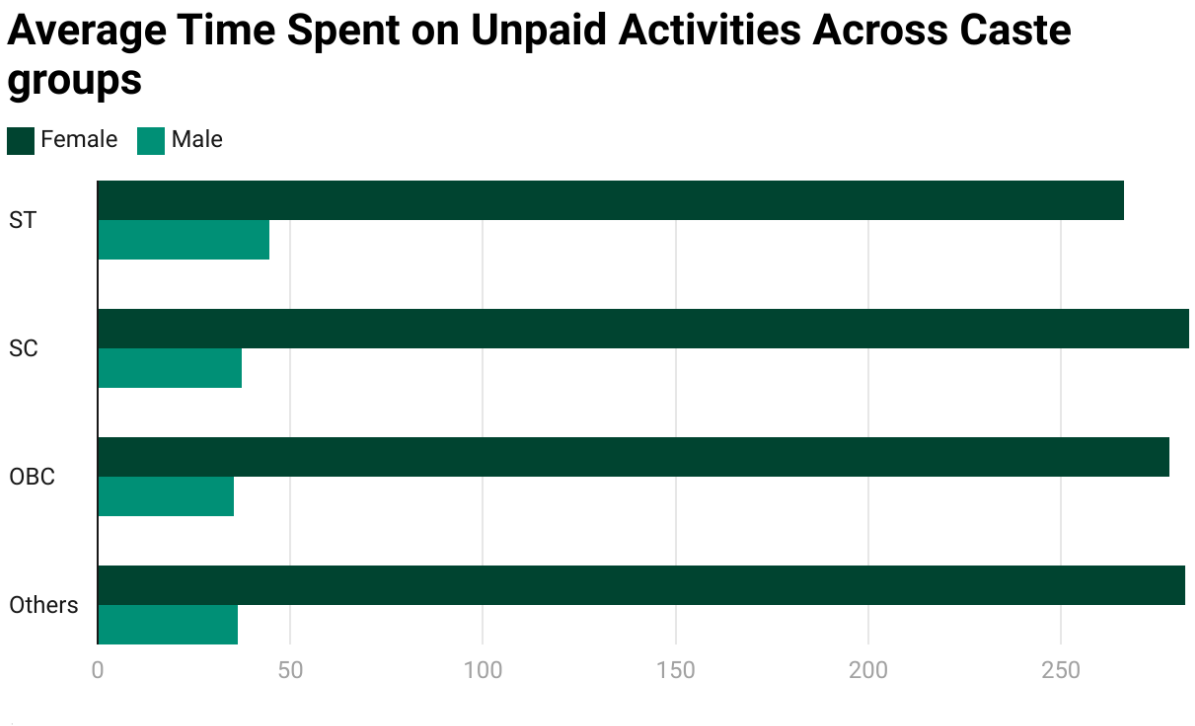

Figure 7: Time Spent across Caste groups

The bar graph in Figure 7 illustrates that the situation remains almost the same between different caste groups, where the disproportionate burden of unpaid domestic work rests on the shoulders of the woman. However, the ST caste group has relatively less inequality compared to other caste groups, and this could be due to the prevalence of matriarchal society in the northeast states, where the tribal population is the dominant.

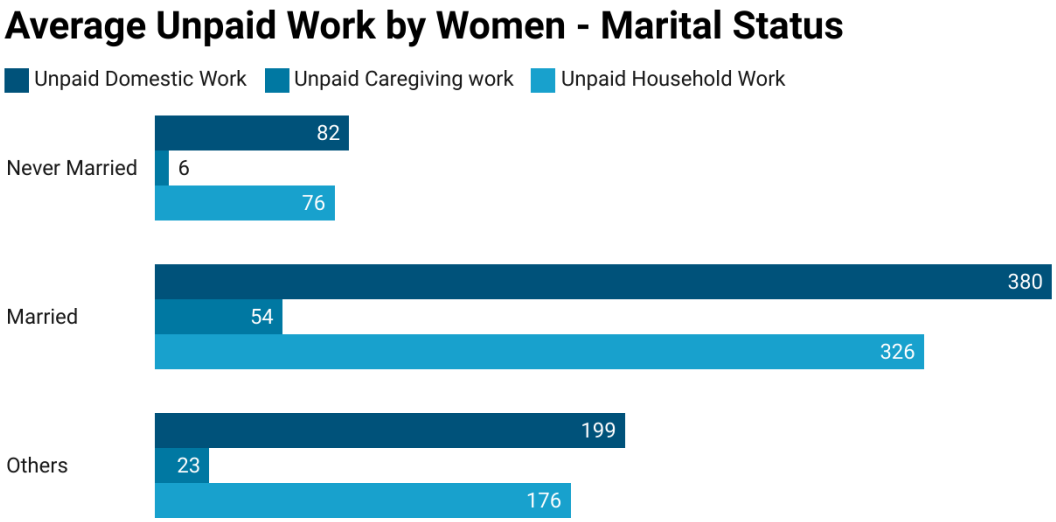

Figure 8: Unpaid work by Women as per Marital Status

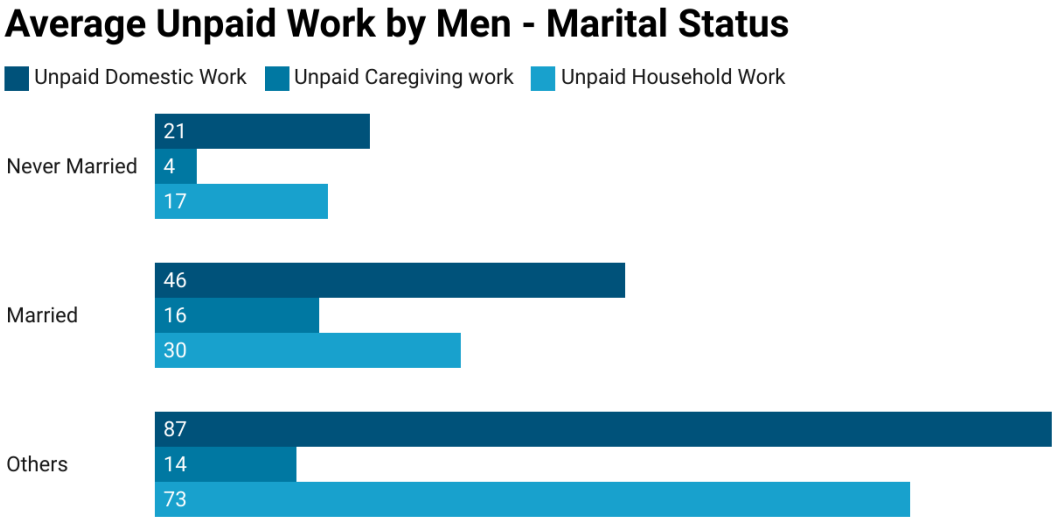

Figure 9: Unpaid work by Men as per Marital Status

Figure 8 and 9 shows that the contribution of Men in the household work significantly declines post-marriage, while that of women see a dramatic rise after getting married. This pattern reflects entrenched gender roles, where household responsibilities disproportionately shift to women post-marriage. This reinforces the traditional role of women as primary caregivers.

	Dependent Variable	
	(1) Unpaid Domestic Work	**(2) Unpaid Caregiving**
Number of Dependent Adults		-.947**
		(.442)
Number of Dependent Children		2.725***
		(.367)
D1: Primary and Below	35.894***	10.559***
	(1.677)	(0.747)
D2: Secondary and Higher Secondary	36.797***	20.286***
	(1.941)	(0.863)
D3: Graduation and Above	-4.539**	20.563***
	(2.067)	(0.921)
D4: Married	148.929***	34.784***
	(2.07)	(0.923)
D5: Unmarried	72.313***	21.354***
	(2.569)	(1.141)
Observations	44394	44394
Controls	Yes	Yes

Note: Standard errors in parentheses.
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Figure 10: Regression Results - Women part of labour force

	Dependent Variable	
	(1) Unpaid Domestic Work	**(2) Unpaid Caregiving**
Number of Dependent Adults		-10.347**
		(.262)
Number of Dependent Children		1.132***
		(.208)
D1: Primary and Below	41.258***	7.995***
	(0.86)	(0.444)
D2: Secondary and Higher Secondary	58.287***	14.582***
	(0.926)	(0.489)
D3: Graduation and Above	48.304***	21.394***
	(1.338)	(0.698)
D4: Married	335.628***	56.833***
	(0.771)	(0.426)
D5: Unmarried	142.446***	30.885***
	(1.325)	(0.721)
Observations	174125	174125
Controls	Yes	Yes

Note: Standard errors in parentheses.
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Figure 11: Regression Results - Women not part of labour force

Based on Figure 10 & 11 the following observations can be made:

5.1 Impact of Dependent Adults & Children

- More dependent adults reduce unpaid caregiving for both groups, but the effect is stronger for non-labor force women.
- More dependent children increase unpaid caregiving, but the effect is stronger for labor force women.

5.2 Role of Education

- For labor force women, higher education reduces unpaid domestic work, suggesting a shift towards paid employment.
- For non-labor force women, higher education increases both unpaid domestic work and caregiving, indicating a stronger role in household responsibilities.

5.3 Marriage and Unpaid Work

- Marriage significantly increases unpaid domestic work for both groups, but the impact is much stronger for non-labor force women.
- Unmarried women also see an increase in unpaid work, but the effect is lower than married women.

6 Discussion

The results clearly reflect that there is a major disparity in the burden of unpaid domestic work between men and women, which is consistent across social groups, income groups, and workers/non-workers. This supports our hypothesis of the existence of a trade-off between paid and unpaid work for women in India.

The regression leaves us with some interesting results. We observe a positive association of unpaid caregiving services with the education level of Indian women irrespective of whether they are part of the labour force or not, which seems counter-intuitive at first. However, this is not the first instance where such results have been obtained. Literature has reported a positive association of education with childcare for Spanish, British, and American mothers, respectively [6]. Using mothers' time diaries from the

2003 to 2018 waves of the American Time Use Survey, it was determined how "time availability" varies by mothers' educational level, a key measure of their socioeconomic resources. Generally, less educated people spend more time obtaining necessary goods and services [7]. It is hypothesized that mothers with greater resources may be better able to protect childcare time than less advantaged mothers. They may have more flexible employment schedules and a greater ability to reduce their housework time with meal services or the latest household technologies. On the other hand, they may internalize expectations of "intensive mothering"— placing the needs of children over all other needs and devoting all available time to children—to a greater extent than less advantaged mothers'.

7 Conclusion

To summarise, our main findings include a positive association between unpaid caregiving work and the number of dependent children, but negative relationship with number of dependent adults. Also, unpaid domestic work is positively associated with highest education level and marital status.

We have also gotten a few counter-intuitive results, which require further treatment with different specifications and econometric approaches. There exists endogeneity in our models owing to omitted variables for unobservable characteristics. A possible solution can be an instrumental variable approach - a potential instrument maybe the income of female members in the household to account for bargaining power of women in their household.

References

[1] Ferrant, G., Pesando, L. M., & Nowacka, K. (2014). *Unpaid care work: The missing link in the analysis of gender gaps in labour outcomes.* OECD Development Center.

[2] Antonopoulos, R. (2008). *The unpaid care work-paid work connection.* Levy Economics Institute, Working Papers Series.

[3] Hirway, I. (2012). Missing labour force: An explanation. *Economic and Political Weekly*, 67–72.

[4] Deshpande, A., & Kabeer, N. (2019). *(in) visibility, care and cultural barriers: The size and shape of women's work in india.*

[5] Deshpande, A., & Singh, J. (2021). *Dropping out, being pushed out or can't get in? Decoding declining labour force participation of indian women.*

[6] Gupta, S., Sayer, L. C., & Pearlman, J. (2021). *Educational and type of day differences in mothers' time availability for child care and housework. Journal of Marriage and Family, 83 (3), 786–802.*

[7] Kneebone, E., & Holmes, N. (2015). *The growing distance between people and jobs in metropolitan america. Brook Inst March.*

8 Appendix

Unpaid Domestic Work	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
Education Level							
Primary & below	35.894	1.677	21.40	0	32.606	39.181	***
Secondary & Sr Secondary	36.797	1.941	18.96	0	32.993	40.602	***
Graduation & above	-4.539	2.067	-2.20	.028	-8.591	-.487	**
Marital Status							
Married	148.929	2.07	71.95	0	144.872	152.986	***
Unmarried	72.313	2.569	28.15	0	67.277	77.349	***
Constant	114.316	2.231	51.24	0	109.943	118.689	***

Mean dependent var	244.632	SD dependent var	149.600
R-squared	0.145	Number of obs	44394
F-test	1503.759	Prob > F	0.000
Akaike crit. (AIC)	563696.016	Bayesian crit. (BIC)	563748.221

*** p<.01, ** p<.05, * p<.1

Unpaid Domestic Work	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
Education Level							
Primary & below	41.258	.86	47.99	0	39.573	42.943	***
Secondary & Sr Secondary	58.287	.926	62.93	0	56.472	60.102	***
Graduation & above	48.304	1.338	36.10	0	45.682	50.927	***
Marital Status							
Married	335.628	.771	435.09	0	334.116	337.139	***
Unmarried	142.446	1.325	107.47	0	139.848	145.044	***
Constant	43.435	.807	53.85	0	41.854	45.016	***

Mean dependent var	287.098	SD dependent var	211.852
R-squared	0.535	Number of obs	174125
F-test	40107.849	Prob > F	0.000
Akaike crit. (AIC)	2225916.309	Bayesian crit. (BIC)	2225976.714

*** p<.01, ** p<.05, * p<.1

Unpaid Caregiving	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
Education Level							
Primary & below	10.559	.747	14.14	0	9.095	12.022	***
Secondary & Sr Secondary	20.286	.863	23.50	0	18.594	21.977	***
Graduation & above	20.563	.921	22.33	0	18.758	22.367	***
Marital Status							
Married	34.784	.923	37.69	0	32.975	36.593	***
Unmarried	21.354	1.141	18.72	0	19.118	23.59	***
No. of Dependent Children	2.725	.367	7.42	0	2.005	3.446	***
No. of Dependent Adult	-.947	.442	-2.14	.032	-1.814	-.08	**
Constant	-11.161	1.02	-10.94	0	-13.161	-9.161	***

Mean dependent var	26.799	SD dependent var	62.885
R-squared	0.046	Number of obs	44394
F-test	306.986	Prob > F	0.000
Akaike crit. (AIC)	491598.675	Bayesian crit. (BIC)	491668.282

*** p<.01, ** p<.05, * p<.1

Unpaid Caregiving	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
Education Level							
Primary & below	7.995	.444	17.99	0	7.124	8.866	***
Secondary & Sr Secondary	14.582	.489	29.80	0	13.623	15.541	***
Graduation & above	21.394	.698	30.63	0	20.025	22.763	***
Marital Status							
Married	56.834	.426	133.37	0	55.999	57.67	***
Unmarried	30.885	.721	42.85	0	29.472	32.298	***
No. of Dependent Children	1.132	.208	5.43	0	.724	1.54	***
No. of Dependent Adult	-10.346	.262	-39.42	0	-10.86	-9.832	***
Constant	-.264	.519	-0.51	.611	-1.28	.753	

Mean dependent var	40.343	SD dependent var	79.074
R-squared	0.114	Number of obs	174125
F-test	3201.709	Prob > F	0.000
Akaike crit. (AIC)	1995062.667	Bayesian crit. (BIC)	1995143.207

*** p<.01, ** p<.05, * p<.1

Unpaid Domestic Work	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
No. of dependent Children	16.108	1.048	15.37	0	14.054	18.162	***
No. of Dependent Adult	-9.134	1.21	-7.55	0	-11.506	-6.763	***
Education Level							
Primary & below	37.273	1.9	19.62	0	33.55	40.996	***
Secondary & Sr Secondary	45.501	2.379	19.12	0	40.837	50.164	***
Graduation & above	16.913	3.268	5.18	0	10.508	23.319	***
Marital Status							
Married	139.781	2.76	50.65	0	134.371	145.19	***
Unmarried	59.923	3.452	17.36	0	53.156	66.689	***
Household Size	-6.694	.478	-13.99	0	-7.632	-5.757	***
Constant	149.202	3.531	42.26	0	142.281	156.122	***

Mean dependent var	255.827	SD dependent var	147.571
R-squared	0.130	Number of obs	31101
F-test	516.293	Prob > F	0.000
Akaike crit. (AIC)	394603.757	Bayesian crit. (BIC)	394687.207

*** p<.01, ** p<.05, * p<.1

Unpaid Domestic Work	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
No. of dependent Children	-8.741	.537	-16.28	0	-9.794	-7.689	***
No. of Dependent Adult	-35.938	.65	-55.33	0	-37.211	-34.665	***
Education Level							
Primary & below	40.673	1.026	39.65	0	38.663	42.684	***
Secondary & Sr Secondary	59.471	1.216	48.93	0	57.088	61.853	***
Graduation & above	62.33	2.169	28.74	0	58.079	66.581	***
Marital Status							
Married	336.978	1.029	327.63	0	334.962	338.994	***
Unmarried	149.843	1.804	83.08	0	146.309	153.378	***
Household Size	.766	.254	3.02	.003	.268	1.263	***
Constant	67.485	1.551	43.52	0	64.446	70.525	***

Mean dependent var	288.998	SD dependent var	212.681
R-squared	0.551	Number of obs	111136
F-test	15155.058	Prob > F	0.000
Akaike crit. (AIC)	1417739.804	Bayesian crit. (BIC)	1417835.989

*** p<.01, ** p<.05, * p<.1