

Unpaid domestic labour and time allocation: A comparative analysis of employed and unemployed women in ernakulam district

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Abstract

Household labour, which is often regarded as ‘invisible work’ is a vital, yet, an underestimated component of economic activity in a country. Applying Becker’s time allocation concept, this paper inspects how employed and unemployed women allocate their time between paid work in the job market and unpaid household duties and their leisure time, uses replacement cost approach to value the activities and captures the extent of their known male participation in household chores. The study found that on average, the total women respondents spend around eight hours of their time in household work, with non-working women respondents devoting only about an additional 16 minutes of their time to household work than their counterparts. Younger women are overburdened with household chores without receiving much help or support when compared to the older women. Education-wise analysis highlights that regardless of the level of education of women, ultimately, the responsibility of unpaid household work primarily fall on them. Another significant finding is that working women enjoy less leisure time than their counterparts while around 26 per cent working women reported to have no leisure time, including lesser sleeping time. The involvement of men in household work is evidently minimal.

Keywords: Domestic Work, Time, Working, Non-Working, Allocation, Unpaid, Women

Introduction

Unpaid domestic work¹, be it household work, childcare or elderly care, disproportionately and inevitably falls on women alone, particularly in developing nations (Ferrant et al., 2014; Singh & Pattanaik, 2020; UN Women, 2019, 2020). Social norms, which are informal rules and shared beliefs governing societies, often prescribe domestic chores as expected behaviour based on gender and familial relations, which are termed as gender norms. This gravely impacts women's bargaining power in the families, especially when they are married and have young children. Married women worked two to three times more than single women while they do intense domestic work when they have young children (UN Women, 2019). In effect, unpaid domestic work by women provides a transfer of hidden subsidies to others in the society placing a lifelong invisible time-tax upon themselves (Antonopoulos, 2008; UN Women, 2020).

Over the past decades, rising women's education, falling fertility rates and transformations in aspirations and social norms have supported women to step into the labour market. However, women entering the labour market are still expected to do a major share of domestic work and is yet to be offset by an increase in men's contribution to unpaid work. When the sharing of domestic work responsibilities is unequal and sufficient time-saving support system in the form of paid help, daycare facilities, transport systems etc. is unavailable, women work for long working hours relative to men and bearing the dual burden of both paid and unpaid work (UN Women, 2019) leading to time poverty (Rodgers, 2023) especially during the Covid pandemic (Krishna, 2024). Time poverty is the feeling of having substantial amount of work to do, paid or unpaid, but not having sufficient time to do it (Trupia et al., 2024). Spending more time in either paid or unpaid activities results in less time for leisure leading to higher time poverty (Wodon & Bardasi, 2006). In addition, this twin burden affects the type and quality of paid work opportunities leading to jobs in low-paid informal sector (Ferrant et al., 2014; UN Women, 2020).

In global context, women do three times more unpaid domestic work than men and this gender disparity vary across nations, with predominant disparity in developing nations and not so evident, but still existent in advanced nations (UN Women, 2019). Women in East and

¹ The work carried out without any remuneration to sustain the well-being, health and maintenance of members in a household, including daily chores (International Labour Organization, 2018).

South-East Asia, Europe and North America spend the least amount of time in household chores (3.6 - 3.8 hours per day) whereas women in Central and South Asia, North Africa and West Asia spent a substantial amount of time in domestic work (five hours per day) (Hanna et al., 2023). The lower gender gap in advanced nations is because firstly, men are found to allocate their time, though not fair share, in less routine household chores such as grocery purchase and house repair works (Ferrant et al., 2014; UN Women, 2019). Handling less feminine activities like running errands, washing vehicles etc. are observed among men in Kerala (Krishna, 2024). Secondly, modern technology in the form of consumer appliances and outsourcing of domestic work to paid workers have reduced the unpaid work responsibility of women in such nations (UN Women, 2019). However, outsourcing of domestic work is unaffordable to many women around the globe leaving them with no option but to do it themselves (Ferrant et al., 2014).

Women's work has drastically changed in the Indian economy and even in this contemporary era, women's unpaid job has only escalated, with no recognition or redistribution of work in the society (Sengupta, 2016; Singh & Pattanaik, 2020). The Time Use Survey 2024 reported women's participation in unpaid household production to be 84 per cent and that of men to be 46 per cent. However, in paid activities, men obviously stand at the forefront with 61 per cent while women's participation being only 21 per cent. Compared to the Time Use Survey in 2019, in 2024, men's participation shows a negligible increase in the unpaid activities by two per cent, from 44 per cent in 2019 to 46 per cent in 2024, whereas, unsurprisingly, women's participation in unpaid work remains the same at 84 per cent in both the surveys (Ministry of Statistics and Programme Implementation, 2024). Urban Indian women employ extra time in domestic work in comparison to rural women, though the difference is narrowing down. Age serves as an indicator of women's collective experiences over time in terms of social roles such as wife, daughter-in-law, mother and other such roles. The prevalence of domestic work is higher among Indian women in the 25 – 34 age category. Interestingly, educated women's participation in unpaid work in the country has increased (Sengupta, 2016; Singh & Pattanaik, 2020), especially in urban areas which can be attributed to low opportunity costs of unpaid work in the economy. Since the dual burden may land women in low-paid informal sector jobs, it restricts educated women from choosing to go for paid work (Singh & Pattanaik, 2020). In Kerala, substantial gender skewness specifically in cooking and childcare responsibilities is prevalent among working parents of middle and upper-middle class

families (Krishna, 2024). Thus, irrespective of whether women are employed or unemployed, the average time spent on household chores remained the same (Sengupta, 2016).

The significant works on unpaid care labour focusses on gender disparity, influence of socio-economic and demographic factors, opportunity cost of unpaid labour, male participation in domestic work and distribution of time allocation of household work by women in the global and national context. However, focus on these same aspects exclusively based on the employment status of women is limited, particularly in Kerala, the State with the highest literacy rate and sex-ratio. Thus, a micro-level study is conducted to understand the time allocation by employed and unemployed women in Kerala for domestic care activities and examine the extent of their invisible contribution to economy in monetary terms, alongside the impact of socio-economic factors and men's participation. For this purpose, the following objectives are formed:

- To study the socio-economic influences on time allocation to the distribution of various household chores by women based on their employment status.
- To understand the extent of contribution by men in domestic activities.

Research methods

Ernakulam district, Kerala's highest urbanized district, is chosen as the study area as the district has the highest urban female population of 11.33 lakhs and also leads in private-sector female employment, as per the Population Census (2011).

Married women with children do intense domestic work as observed in UN Women (2019). Hence, to examine the dual burden of waged and non-waged work, 'married women with children' is purposively selected as the criteria to deeply examine the extent of burden borne by them, thus, purposive sampling technique is used. However, since data on married women with children is unavailable, the available data on the age-wise classification of the number of married women is taken from Population Census (2011) (Table 1). A proportional quota sampling is used to select sample women respondents. The overall married women population in Ernakulam constitutes 9,05,242. With 95 per cent confidence interval, the sample size calculated comes to 384 women respondents. However, due to temporal constraints, 26 per cent of the sample size, constituting to 99.84 (rounded-off to 100), is proportionately selected from the age-wise data classification of married women. Respondents aged 19 years and below are not considered in the study. The values and the

decimals are rounded-off to the next even number, raising the sample size to 102 women respondents and is equally divided to collect data specifically from working and non-working women.

Table 1: Sample Size Distribution of Total Women and Married Women Population in Ernakulam

Age (in years)	Total women	Total married women	% of Married Women*	Proportionate Sample*	Round off*	Sample size rounded-off to the next even number*	Working Women*	Non-Working Women*
< 15	339572	1724	0.19	-	-	-	-	-
15-19	110996	7293	0.81	-	-	-	-	-
20-24	114746	51150	5.65	5.65	6	6	3	3
25-29	121550	103534	11.44	11.44	11	12	6	6
30-34	122574	113802	12.57	12.57	13	14	7	7
35-39	138147	128538	14.20	14.20	14	14	7	7
40-44	135936	123582	13.65	13.65	14	14	7	7
45-49	129572	112931	12.48	12.48	12	12	6	6
>50	448297	262688	29.02	29.02	29	30	15	15
Total	1661390	905242	100	99	99	102	51	51

*Source: Population Census (2011);*Calculated by the author*

Primary data is collected from working and non-working married women with children using a structured schedule. Secondary data sources such as research papers from journals such as The Economic Journal and Palgrave Communications, global reports such as International Labour Organisation and United Nations Women, working papers and internet sources are used for reviewing literature and to form a robust background of the study. The statistical tools used for analysis of the collected data are percentage, descriptive statistics, correlation, chi-square test of independence, Kruskal-Wallis and Mann-Whitney U test. The data is analysed using JASP and SPSS 25 and graphical representation using MS-Excel.

There are two methods to measure the monetary value women devote to domestic work: the opportunity-cost approach and the replacement-cost approach. Opportunity cost approach takes into account the market wage rate of the individual's paid work and considers it as the foregone earnings for the time allotted for unpaid domestic work. Replacement cost approach takes into account the cost of hiring an actual housemaid for doing the domestic chores to value the time devoted by the individual to unpaid domestic work (Miranda, 2011). In the present study, the replacement-cost approach is used to measure the cost of the time devoted by employed and unemployed women in the study area towards household chores. Using Becker's time allocation concept, the total available time (24 hours) is divided into three:

time spent in household production, time spent in labour force and leisure which includes sleeping time (Becker, 1965; Chiappori & Lewbel, 2015) and the respondents are asked the time they allot to each aspect in a day. Kerala government in 2016 revised the minimum wage rate of domestic workers in the State, assuming working for 26 days a month (Labour and Skills (E) Department, 2016), which is presented in Table 2. Only the household works mentioned in Table 2 and its respective minimum wage rates are considered for calculation of unpaid work of women respondents in the present study, as these are the major chores reported to be performed by women in the households.

Table 2: Revised Minimum Wages for Domestic Workers in Kerala (for 26 working day/month)

Work	For 1 hour / day (in Rs.)	For Subsequent hours per day (in Rs.)	For 8 Hours a day (in Rs.)	Monthly Wages (in Rs.)
Washing clothes	37.5	22.5	195	5070
Washing vessels	37.5	22.5	195	5070
Cleaning house	37.5	22.5	195	5070
Childcare	38.25	23.25	201	5226
Elderly care	38.25	23.25	201	5226
Cooking food	39.75	24.75	213	5538
TOTAL	228.75	138.75	1200	31200

Source: Labour and Skills (E) Department (2016)

Results and discussions

Regarding the socio-economic background of the respondents (Table 3), the study shows a balance across the age-wise classification as proportional quota sampling based on age is taken. The average age of the respondents is 40.74 years. Education-wise analysis among the respondents show that highly educated women are employed while less educated remain unemployed. A chi-square test of independence shows statistically significant relation between education level and employment status of women ($\chi^2 = 10.737$, $df = 1$, $p = 0.001$) with an odds ratio of 0.244 indicating that women with lower level of education are 0.244 times less likely to be employed than their counterparts, significant at 1 per cent. Of the working women, around 73 per cent women respondents are employed in the informal sector with private jobs or small businesses, of which, around 60 per cent earn a monthly income below ₹40,000 which reflects the observation in the study by Ferrant et al. (2014) and UN Women (2020) that the dual burden affects the type and quality of paid work opportunities. Around two-thirds of the working women respondents earn a monthly income between Rs. 20,000 to 60,000 which shows that majority belong to the middle-class population.

Table 3: Socio-Economic Profile of the Respondents

Variables	Categories	Employed Women	Unemployed Women	Total
Age Group	20-24 years	3 (5.9)	3 (5.9)	6 (5.88)
	25-29 years	6 (11.8)	6 (11.8)	12 (11.76)
	30-34 years	7 (13.7)	7 (13.7)	14 (13.73)
	35-39 years	7 (13.7)	7 (13.7)	14 (13.73)
	40-44 years	7 (13.7)	7 (13.7)	14 (13.73)
	45-49 years	6 (11.8)	6 (11.8)	12 (11.76)
	Above 50 years	15 (29.4)	15 (29.4)	30 (29.41)
	TOTAL	51 (100)	51 (100)	102 (100)
Qualification	Primary	0 (0)	4 (7.8)	4 (3.92)
	Secondary	2 (3.9)	10 (19.6)	12 (11.76)
	Higher Secondary	1 (2)	8 (15.7)	9 (8.82)
	Diploma	8 (15.7)	5 (9.8)	13 (12.75)
	Graduation	18 (35.3)	17 (33.3)	35 (34.31)
	Post-Graduation	10 (19.6)	4 (4)	14 (13.73)
	Professional Degree	12 (23.5)	3 (5.9)	15 (14.71)
	TOTAL	51 (100)	51 (100)	102 (100)
Occupation	Government	14 (27.5)	No Occupation	102 (100)
	Private	26 (51)		
	Business/Self-employed	11 (21.5)		
	TOTAL	51 (100)	51 (100)	
Monthly Income of the Respondent	Below ₹20,000	11 (21.6)	No Income	102 (100)
	₹20,000 - 40,000	19 (37.3)		
	₹40,000 - 60,000	14 (27.4)		
	₹60,000 - 80,000	4 (7.8)		
	₹80,000 & above	3 (5.9)		
	TOTAL	51 (100)	51 (100)	
Religion	Hindu	24 (47.1)	20 (39.2)	44 (43.14)
	Christian	20 (39.2)	15 (29.4)	35 (34.31)
	Muslim	7 (13.7)	16 (31.4)	23 (22.55)
	TOTAL	51 (100)	51 (100)	102 (100)
Family Type	Nuclear	34 (66.7)	27 (52.9)	61 (59.8)
	Joint	17 (33.3)	24 (47.1)	41 (40.2)
	TOTAL	51 (100)	51 (100)	102 (100)
Number of Children	1-2 children	40 (78.4)	37 (72.55)	77 (75.49)
	Three & above	11 (21.6)	14 (27.45)	25 (24.51)
	TOTAL	51 (100)	51 (100)	102 (100)
Assistance for Household Work	No Help	16 (31.4)	23 (45.1)	39 (38.24)
	Paid Help	11 (21.6)	7 (13.7)	18 (17.65)
	Help from Family	24 (47.1)	21 (41.2)	45 (44.12)
	TOTAL	51 (100)	51 (100)	102 (100)

Source: Primary Data, 2025; % in brackets

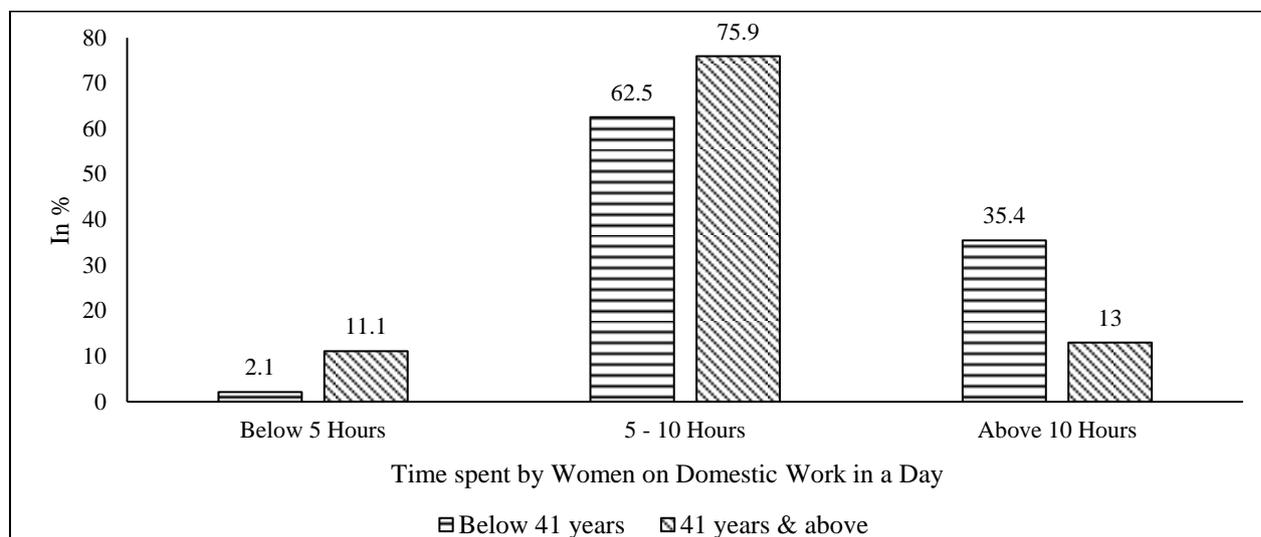
Majority of the women respondents have 1 – 2 children. Though more than two-fifths of the total respondents receive help from family for household work, employment-wise analysis shows that more than two-fifths of the non-working women handle household work alone compared to their counterparts, while working women have relatively more family support

and paid help for household work. Thus, outsourcing of domestic work though reduces the work burden as reported in UN Women (2019), it emanates as an affordable option comparatively for lesser number of women as reported in Ferrant et al. (2014).

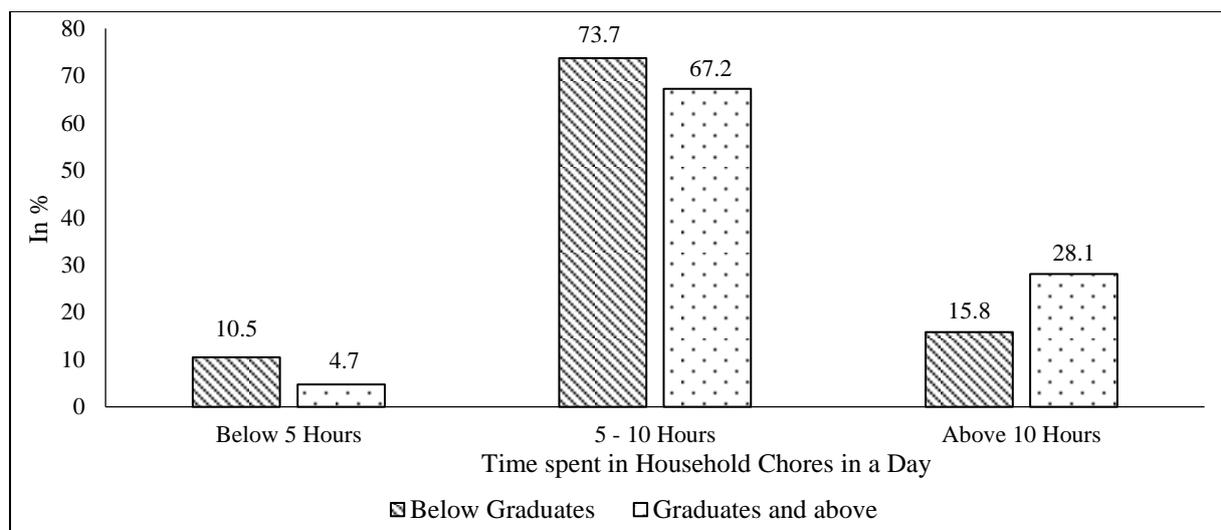
Socio-Economic influences on time allocation for domestic work by women

Around 70 per cent women respondents reported to allocate 5-10 hours of their total time in domestic work per day. The average time spent by the women respondents for household production is eight hours and 12 minutes. Figure 1 and 2 shows the age-wise and education-wise categorization (based on mean age and years of education) of total time expended by the women respondents in domestic work, which clearly showcases that more women aged 41 years and above (80 per cent) and those with below graduate level of education (74 per cent) spend 5-10 hours a day on household chores than their counterparts. However, the age-wise and education-wise difference is substantial when it comes to spending more than 10 hours of their time for domestic duties. More than one-third of the women respondents aged below 41 years (Figure 1) and more than one-fourth of the respondents with graduation and above level of education (Figure 2) spent more than half of their day on domestic work compared to their counterparts.

Figure 1: Age-wise Percentage of Women allocating their Time for Domestic Work



Source: Primary Data, 2025

Figure 2: Education-wise Percentage of Women allocating their Time for Domestic Work

Source: Primary Data, 2025

Time spent by women on household activities based on age-wise classification was normally distributed for under 41 years of age (Shapiro-Wilk Test with statistic = 0.978, $df = 48$, $p = 0.511$) but was not normally distributed for the age category of 41 years and above (statistic = 0.915, $df = 54$, $p = 0.001$). So, a Mann-Whitney U test conducted found that there is a significant difference in the time spent on household chores by women based on their age with $U = 712$, $Z = -3.928$, $p = 0.000$ and the mean ranks also exhibits major difference with women under 41 years of age having a higher mean rank of 63.67 and the women aged 41 years and above with a mean rank of 40.69.

In terms of education, the distribution of time spent by women on household activities was not normally distributed for those with graduation and above level of education (Shapiro-Wilk Test with statistic = 0.962, $df = 64$, $p = 0.047$) but was normally distributed for those with an education level below graduation (statistic = 0.950, $df = 38$, $p = 0.086$ for 41 years and above). So, a Mann-Whitney U test conducted found that there is a no significant difference in the time spent on household chores by women based on their level of education with $U = 981$, $Z = -1.632$, $p = 0.103$ and the mean ranks though exhibits that women with graduation and above level of education do more household chores on average with a mean rank of 55.17 than their counterparts with a mean rank of 45.32, the difference is not statistically significant. This finding throws light on the stark reality that irrespective of women's level of education, the burden of household responsibilities falls upon them. When

age is considered, younger women were more prone to spending huge amount of time on domestic work than older women.

Table 4(a): Age-wise Analysis of Time Spent by Working Women Respondents in a Day (in Hours)

Variables (N = 51)	Below 41 years				41 years & above			
	Mean	Std. Deviation	Minimum	Maximum	Mean	Std. Deviation	Minimum	Maximum
Time spent on Unpaid Work	9.15	2.25	4.50	14.00	7.18	1.93	4.50	12.00
Time spent on Paid Work including travelling to workplace	8.70	1.16	7.00	12.00	8.09	1.41	4.17	10.50
Time spent for Sleeping	7.25	0.85	5.30	9.00	7.27	0.93	5.00	9.00
Time spent for Leisure	-1.10	2.07	-5.83	2.70	1.46	2.44	-3.30	6.95

Table 4(b): Age-wise Analysis of Time Spent by Non-Working Women Respondents in a Day (in Hours)

Variables (N = 51)	Below 41 years				41 years & above			
	Mean	Std. Deviation	Minimum	Maximum	Mean	Std. Deviation	Minimum	Maximum
Time spent on Unpaid Work	9.08	2.27	5.50	15.00	7.63	2.54	4.50	14.00
Time spent on Paid Work including travelling to work	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Time spent for Sleeping	7.69	0.74	6.00	9.00	7.53	1.08	5.30	10.00
Time spent for Leisure	7.23	2.34	2.70	11.70	8.83	2.11	3.00	12.20

Source: Primary Data, 2025; categorised based on mean age of 40.74 years

Age-wise analysis of the average time spent by working and non-working women in household chores (Table 4a and 4b) shows that working women below 41 years of age allotted nine hours and nine minutes of their time, on average, in a day for household work while working women aged 41 years and above spend only seven hours and 11 minutes a day for household chores. It means that younger working women spend around two additional hours of their time on household duties. Similar time allocation can be observed among non-working women based on age-wise analysis (Table 4b). Non-working women below 41 years of age spend, on average, one hour and 27 minutes more of their time on household work than the non-working women aged 41 years and above (Table 4b). Hence, age-wise analysis showcases that younger working women are loaded with the twin burden, along with shouldering only unpaid work burden by younger non-working women relative to older working and non-working women. This can be due to more childcare responsibilities borne by younger women while more family or other help received by older women.

Influence of women's employment status on time allocation on various household activities

Working women spend an average of around eight hours and four minutes in unpaid work while their counterparts spend around eight hours and 20 minutes in unpaid work (Table 5),

which means, that the non-working women respondents are devoting only about an additional 16 minutes of their time to household work than their counterparts who have double the burden of bearing the work in labour market as well. Regarding sleeping time, the working women, on average, gets a sleep of seven hours and 16 minutes while their counterparts receive seven hours and 37 minutes of sleep, that is, a meagre 21 extra minutes of sleep. This shows the time poverty prevalent among women, particularly the working women as cited in Wodon & Bardasi (2006).

Table 5: Total Time spent by Women Respondents in a Day based on Status of Employment (in Hours)

Time spent on Various Unpaid Activities	Working Women (N = 51)				Non-Working Women (N = 51)			
	Mean	Std. Deviation	Minimum	Maximum	Mean	Std. Deviation	Minimum	Maximum
Time spent on Unpaid work	8.06	2.28	4.5	14	8.34	2.49	4.5	15
Time spent on paid work including travel time	8.36	1.32	4.17	12	-	-	-	-
Time spent for Sleeping	7.26	0.88	5	9	7.61	0.91	5.3	10
Time spent for Leisure	0.30	2.59	-5.83	6.95	8.04	2.34	2.7	12.2

Source: Primary Data, 2025

The total time spent by working and non-working women on household activities were not normally distributed (Shapiro-Wilk Test with statistic = 0.959, df = 102, p = 0.003). A Mann-Whitney U test showed that there is no significant difference in the total time spent on household chores based on the respondents' employment status with U = 1233, Z = -0.453, p = 0.650 and the mean ranks also exhibits minor difference with working women having a mean rank of 50.17 and the non-working women with a mean rank of 52.82. This finding displays that irrespective of women's employment status, the burden of household responsibilities is borne by them.

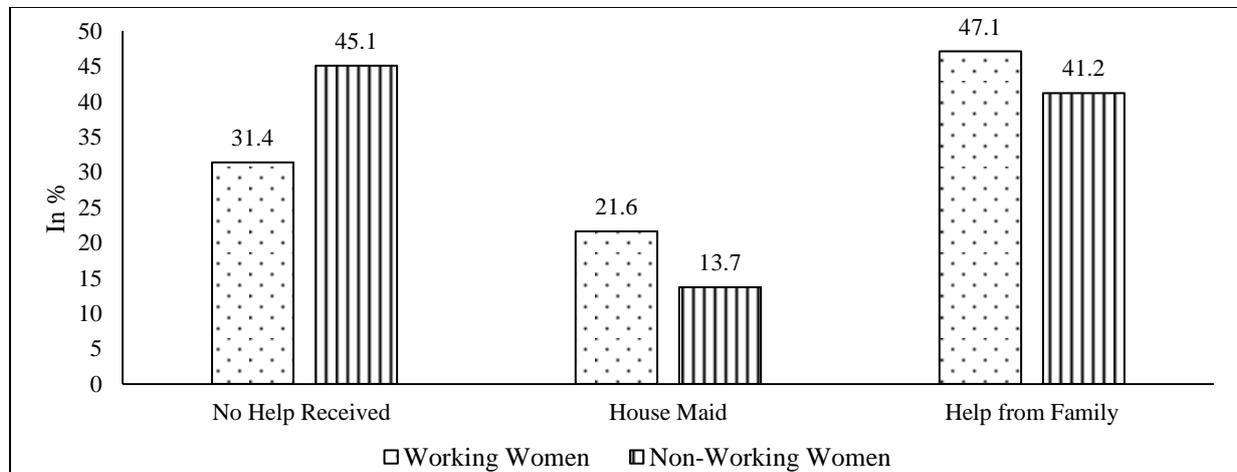
Table 6 showcases the distribution of various household work performed by the women respondents. It displays that there is no difference in the minimum and maximum amount of time spent by both salaried and non-salaried women in terms of cooking food and cleaning the house, though significant difference can be seen in average time expended for cooking among both the categories of women. For other household activities like washing clothes, children and elderly care, the maximum and the average time spent time by both categories of women is not much different. This finding corroborates with the findings of Krishna (2024) wherein gender skewness in cooking is widely observed in Kerala context.

Table 6: Employment Status-wise Distribution of Total Time spent on Various Unpaid Work by Respondents (in Hours)

Household Activities	Working Women				Non-Working Women			
	Mean	Std. Deviation	Minimum	Maximum	Mean	Std. Deviation	Minimum	Maximum
Cooking	1.99	0.67	1.5	3.5	2.40	0.72	1.5	3.5
Cleaning	1.55	0.23	1.5	2.5	1.65	0.36	1.5	2.5
Washing clothes/utensils	1.26	0.67	0	2.5	1.43	0.54	0	2.5
Child Care	0.78	1.11	0	3.5	0.98	1.25	0	3.5
Elderly Care	0.63	0.78	0	2.5	0.40	0.70	0	2.5
Miscellaneous	1.83	0.47	1.5	2.5	1.47	0.80	0	2.5

Source: Primary Data, 2025

More than half of both working and non-working women had either paid help or help from family members in doing household tasks, though relatively, more of working women are seen to have such assistance than their counterparts, which could be the reason why the minimum time spent on laundry, childcare and elderly care is zero hours (Figure 3). It is also noted that around 31 per cent working women receive no help of any form for doing household chores.

Figure 3: Percentage of Working and Non-Working Women receiving Support for Household work

Source: Primary Data, 2025

To examine the difference in the time spent by women in domestic work due to external help received, a Kruskal-Wallis test performed among the three groups: no help received, help from housemaid and help from family members, showed a statistically significant difference with statistic = 6.399 and $p = 0.041$, indicating that external help did influence the time spent by women in doing household chores. A post-hoc analysis was conducted using Dunn's

pairwise comparisons with Bonferroni and Holm corrections to identify the group showing the difference (Table 7).

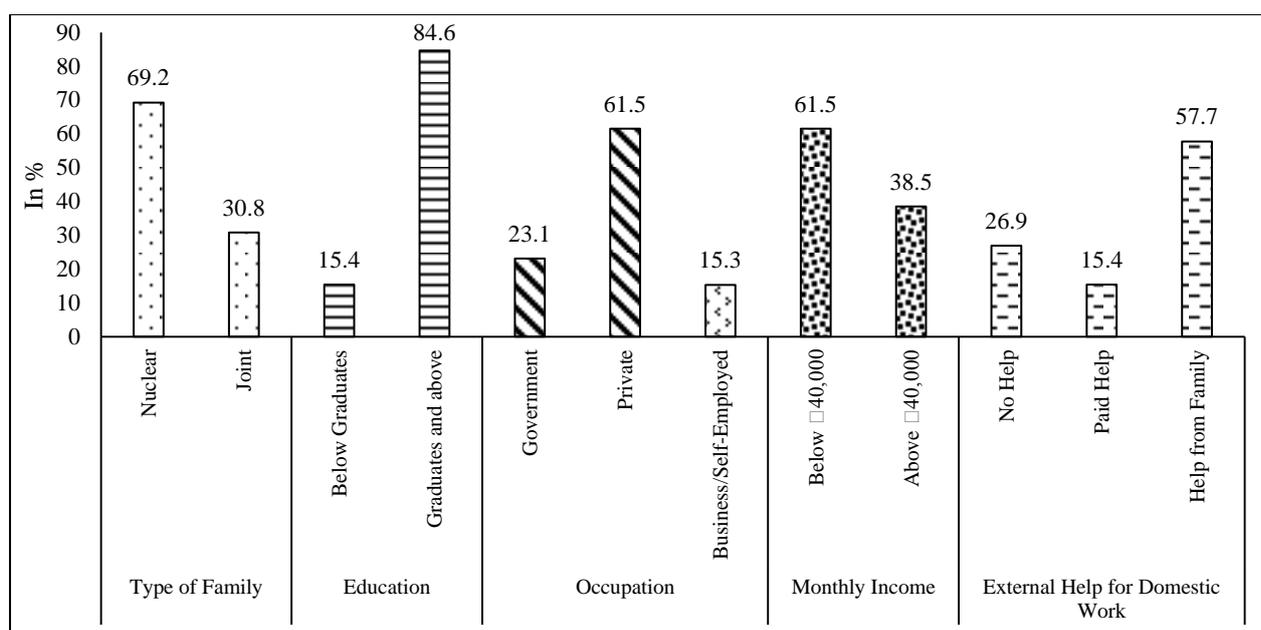
Table 7: Dunn's Post Hoc Comparisons

Comparison	z	Wi	Wj	rrb	p	pbonf	pholm
No Help - Paid Help	1.888	52.141	36.278	0.346	0.059	0.177	0.118
No Help - Help from Family	-0.758	52.141	57.033	0.11	0.448	1	0.448
Paid Help - Help from Family	-2.524	36.278	57.033	0.377	0.012	0.035	0.035

Source: Primary Data, 2025

A statistically significant difference with $z = -2.524$ and $p = 0.012$ is found between paid help received and help received from family, with moderate effect, which indicates that women receiving external help from a maid are spending significantly lesser time in doing domestic work in relation to those receiving help from family members. This implies that outsourcing paid work significantly reduces the time spent by women on domestic chores and this time can be devoted by the women respondents to other activities, including leisure. This finding is similar to the pattern witnessed in advanced nations as reported in (UN Women, 2019), wherein outsourcing domestic work has reduced responsibility of unpaid work among women. However, majority of the working and non-working women reports to have no help or only help received from family members which denotes the reality that outsourcing is not a financially feasible option for all as observed in the findings of (Ferrant et al., 2014)

A significant finding is that zero or negative leisure time was reported by 26 women respondents (25.50 per cent), all of whom were employed (Table 4a). A chi-square test of independence performed between the employment status of the respondents and their leisure time enjoyed revealed a statistically significant with $\chi^2 = 72.143$, $df = 3$, $p = 0.000$, significant at 1 per cent level. Solely working women having reported zero or negative leisure time indicates the dual burden of compensated and uncompensated work borne by them. However, the socio-economic background of these 26 working women (Figure 4) displays why they do not enjoy any leisure as majority are from nuclear families, and though educated, most of them work in private sector with a monthly income below ₹40,000. The highlight is that only 16 per cent of these women have paid help for domestic work, while majority though have stated to have help from family, ultimately, the burden falls upon these women which is why they reported to have zero leisure time. This effectively throws light on the time poverty particularly working women as observed by Wodon & Bardasi (2006).

Figure 4: Socio-Economic Background of the Working Women with Zero/Negative Leisure

Source: Primary Data, 2025

Measuring unpaid work of the women respondents in monetary terms

Kerala government's minimum wage law for domestic workers in 2016 established minimum wages for various domestic works on per hour basis of a day, subsequent hours of the same day, eight hours per day of work and monthly basis (Table 2). Based on the wage rate fixed per first hour of work and subsequent hours of the same day, the mean wage and standard deviation is calculated for the time devoted to domestic chores by the women respondents in the study area and is represented in Table 8. Miscellaneous activities such as noting down home expenses, gardening, tailoring etc. as reported by the women respondents are excluded for ease of calculation.

Table 8: Wage Rate (in ₹) for Domestic Work done in a Day by the Respondents as per Kerala Minimum Wage Laws

Household Activities (N =102)	Mean Wage (in Rs.)	Std. Deviation (in Rs.)
Cooking	69.35	18.02
Cleaning	51.17	7.01
Washing vessel/clothes	86.25	37.74
Childcare	26.69	34.28
Elderly Care	17.08	24.48
TOTAL	250.55	121.55

Source: Primary Data, 2025

Table 8 shows that on average, a woman engages in Rs.250.55 worth of daily domestic work and Rs.7516.55 worth of monthly domestic work (assuming 30 days a month) in her household in the study area. The average annual contribution per woman towards household production from the study area comes to Rs.91,451.30. The total value of unpaid activities performed by the sample respondents annually comes to Rs.93,28,032.35. This finding highlights the invisible labour and time tax women bear throughout their life as mentioned in Antonopoulos, (2008) and UN Women (2020).

Table 9: Employment-wise Analysis of Wage Rate (in Rs.) for Domestic Work done in a Day by the Respondents as per Kerala Minimum Wage Laws

Household Activities	Working Women (N = 51)		Non-Working Women (N = 51)	
	Mean Wage (in Rs.)	Std. Deviation	Mean Wage (in Rs.)	Std. Deviation
Cooking	64.26	16.69	74.45	18.02
Cleaning	50.07	5.35	52.28	8.26
Washing	81.03	41.79	91.47	32.80
Childcare	24.12	32.56	29.26	36.07
Elderly Care	20.99	25.54	13.17	22.96
TOTAL	240.47	121.93	260.63	118.11

Source: Primary Data, 2025

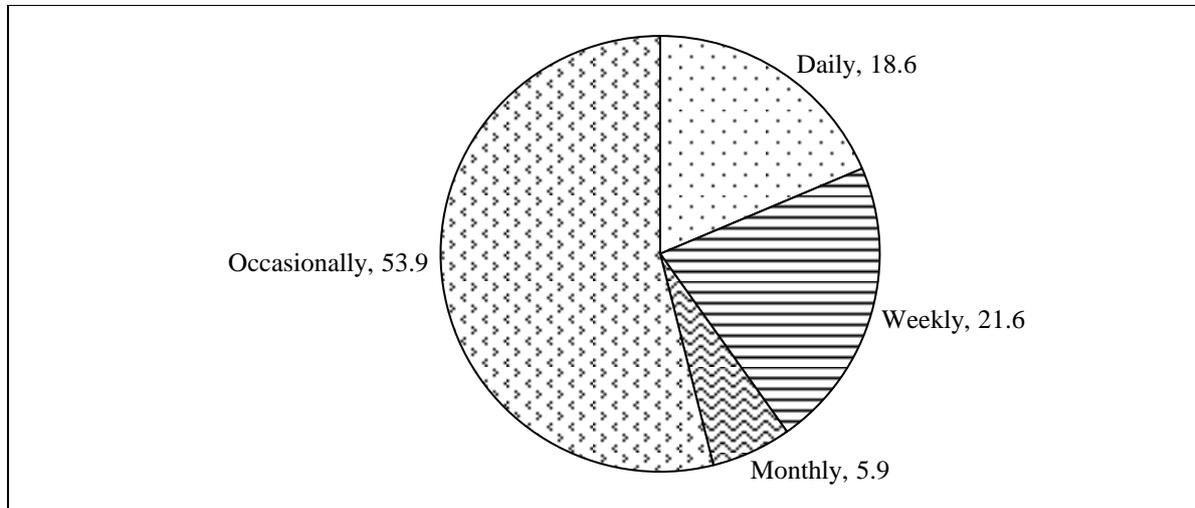
Employment-wise minimum wages calculated for the household work (Table 9) shows that a working woman, on average, engages in Rs.240.47 worth of unpaid domestic work while a non-working woman engages in Rs.260.63 worth of unpaid domestic work in a day in her household in the study area. Monthly value of household work contributed by a working woman is Rs.7214.12 and by a non-working woman is Rs.7818.97. A Mann-Whitney U test performed between the employment status and calculated wages of various household work indicates that non-working women spend more time in cooking than working women ($U = 895.500$, $Z = -2.953$, $p = 0.003$) while both salaried and non-salaried women spend almost similar amount of time for other domestic works. This is similar to the finding in Table 6.

Men's Participation in Domestic Work in the Study Area

When the respondents were asked about the male participation in domestic chores, more than half of the women responded that the men in their household occasionally help them in domestic work, while 19 per cent stated the men in their home help them daily in domestic works (Figure 5). Close to half of the salaried women and more than half of the non-salaried women responded that the men in their homes occasionally help them in domestic work. Nearly one-fourths of the non-working women informed daily help from men in domestic work compared to only 14 per cent working women reporting daily help from men, which

display the everyday struggle working women have to go through to balance the dual work at home and workplace.

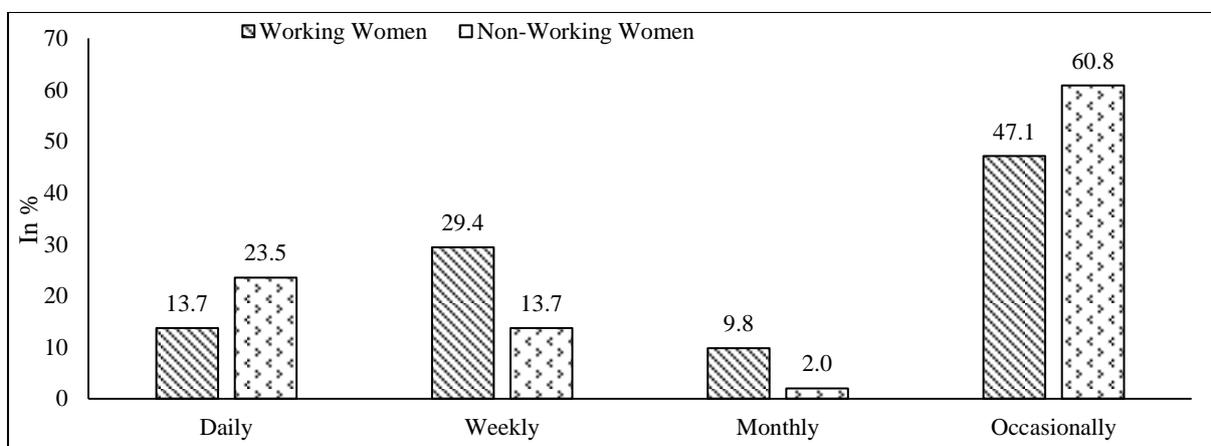
Figure 5: Male Participation in Domestic Chores as reported by Women Respondents (in %)



Source: Primary Data, 2025

The respondents informed that men aided them in chores such as cooking, cleaning house, washing vehicles, gardening, child care, chopping vegetables and fish, repairing electrical equipment etc. Though men are engaging in some domestic chores, the unequal distribution of invisible care work between men and women is evident in this micro-level study, as majority of both working and non-working women reports only occasional help from men as reported in UN Women (2019).

Figure 6: Male Participation in Domestic Chores as reported Women Respondents based on their Employment Status (in %)



Source: Primary Data, 2025

Conclusion

The present study underscores the firm gender inequalities in unpaid domestic work showcasing that women entering the labour market does not lighten the household burden rather aggravates it with the dual drudgery of both visible paid and invisible unpaid work. Though non-working women devote slightly more time to domestic work than working women, the latter category experiences increased time poverty with reduced leisure and sleep. Younger women bear a heavier workload than older women in household chores highlighting shouldering of childcare responsibilities by them. Despite higher education levels, male participation remains limited and ultimately points toward the unsurprising fact that women's responsibility at home still remain unchanged. Outsourcing domestic work may largely help women's heavy workload, however, financial constraints restrict this option for many women. Future research can explore the impact of unpaid domestic work on women's physical and mental well-being, especially in households with greater caregiving demands.

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