

# An Economic Analysis of the Time Allocation by Employed and Unemployed Women.

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## Abstract

Gender inequalities in unpaid work are a serious concern in the present era. Unpaid work is often seen as women's responsibility. The purpose of the study is to analyse the nature and magnitude of women's unpaid work in Maradu Municipality based on their employment status. The convenience sampling technique is used to recruit sample units. The study also examines the comparative differences in the amount of leisure that employed and unemployed women enjoy. The study's findings imply that there is no significant difference in the average time allocated to household work by employed and unemployed women. This means that employment status does not significantly affect the magnitude of women's unpaid care work. Employed women, on average, allocate 1.24 hours a day for leisure, whereas unemployed women, on average, spend 2.14 hours for leisure. The results of a Mann-Whitney U test suggest that there is a statistically significant difference in the average time allocated to leisure of employed and unemployed women. While employment status is found to affect women's time allocation to leisure significantly, it does not influence household work.

**Keywords:** Unpaid Care Work, Employment, Leisure, Household work

## 1. Introduction

Unpaid care work includes household maintenance, care of people, and voluntary community service (Budlender, 2010). Unpaid care work includes every unpaid activity carried out in households – including both direct care and indirect care. Direct care includes services to household members like children, the elderly, etc. Indirect care includes activities such as cooking, cleaning, or fetching water. All these activities are different in intensity, physical effort, time, age, sex, marital status, socioeconomic conditions, etc. Apart from their paid activities, women spend a landslide amount of time on unpaid care work, which is far greater than men. “This is commonly referred to as the ‘double burden’ of women. The unequal distribution of unpaid care work between women and men represents an infringement of women’s rights” (Ferrant et al., 2014) and a hindrance on their economic empowerment.

People usually allocate their time in three activities: paid, unpaid, and ‘no work’. ‘No work’ does not include sleep and is often used to refer to leisure and personal care. It is important that ‘no work’ cannot include inactivity due to involuntary unemployment. Paid work refers to time spent that receives remuneration. “Unpaid care work refers to all unpaid services provided within a household for its members, including care of persons, housework and voluntary community work” (Elson, 2000). Unpaid work has received less attention. Unpaid work includes all activities which do not earn remuneration. Various factors determine the overall time allocation between paid and unpaid work like sex, age, number of children in the household, educational qualification etc.

A very significant tool used to measure the time budget of people and households is the Time use survey (TUS). Time use surveys (TUS) help determine the population's allocation of time on various activities. TUS is significant in that it provides data regarding the various activities performed by individuals and the duration for which these activities are done. Time-use surveys differ from other household surveys as time-use surveys capture a great deal of detail regarding the time disposition of the population on diverse aspects of human and household activities. TUS is primarily used to measure the time allocation of women and men in unpaid and paid activities. Time-use surveys are also vital as they provide data regarding time spent on leisure.

Gender inequalities in unpaid work is a serious concern in the present era. Unpaid work is often seen as the responsibility of women. Time use data offers important details of how gender roles mould the division of labour within a household and help identify and measure the disparity in this division of labour between the sexes. Around the globe women, on average, spend three to six hours of unpaid care work, whereas men spend between half an hour and two hours in the same. The aim of this paper is to provide a comparative analysis of the magnitude and differences in unpaid care work among employed and unemployed women.

## 2. Literature Review

Becker (1965) was the first to consider the importance of time in economic modelling. His theory postulates that households maximise their utility function defined over the commodities they consume. These commodities are produced out of the inputs from the market and time. Becker integrates the Marshallian demand function and time allocation. Hence, Becker gave the impetus for the birth of the use of time in economic and econometric modelling. He opines that the demarcation of work and leisure is unrealistic and emphasises the need for a more precise differentiation of how people spend time. Gronau (1977) revisited Becker's theory of allocation of time. An important contribution was that he categorised work into three- work in the market, at home and leisure. He states that as wage rates increase, work at home decreases, which may increase or decrease individuals' time for leisure. The model has been instrumental in further studies in the analyses of time use and in areas like childcare, labour force participation, fertility, etc. Szalai (1966) details the method of measuring and quantifying time use through time budget surveys. Time budget surveys measure the time spent on different activities and provide information on how much time is left with a person (usually excluding working hours). The author further substantiates how time budget surveys are helpful in comparing the time use pattern and consumption pattern of different individuals. For the time budget study 30,000 adults from Peru, Belgium, France, Russia, East and West Germany, and six European countries are interviewed.

Using the data collected using survey method from 400 married teachers, substitute and non-working teachers who reside in the northern suburbs of Chicago, Lee Gramm (1974) examines the time use pattern of women. The author finds out that as wages of women increase, they spend less time outside the market. The demand for the wife's non-market time increases as the husband's wages increase. Gronau (1976) analyses the time allocation pattern of households in Israel using the 1968-69 Family Expenditure Survey. The author details that labour force participation of women is positively related to weekly wage rate. He also finds out that there exist negative relationships between labour force participation and income of the household and labour force participation and the wife's age. Mincer (1985) analyses the growth of women's labour force participation in 12 industrialised countries. Using the data of 1960-80 he puts special emphasis on the labour force participation of married women. He found that there is a positive relationship between women's labour force participation and real wages, but the elasticities differ among countries. Yamada and Yamada (1987) examine the labour employment of married women in Japan. They used the 1980 population census data to study the employment of urban married women in part-time and full-time jobs. They found that the wage elasticity of married women for part-time jobs is greater than that of full-time jobs. A significant difference in the effect of husbands' wages on married women's employment nature was also observed.

Female labour force participation is found to increase with an increase in women's education, according to Gronau (1976). Mincer (1985) also found a positive relationship between women's labour force participation and their education. Various studies show that there is a negative relationship between time spent at home and employment. Harmoinen (2003) uses the Multinational time use study to analyse the allocation of time between home and workplace in 8 countries (UK, Portugal, Netherlands, Germany, Austria, Denmark, Finland and Belgium) to conclude that the unemployed spend more time at home. Another significant result is that women, on average, spend more time at home regardless of employment status. A negative relationship between age and employment of married women was established by Ngo (1992). The study was conducted in Hong Kong, and it was found that age affects respondents' choice of employment status. The result of a study in Tamil Nadu based on a primary survey in Tamil Nadu finds that, on average, women spend 43.5 hours a week on non-market work and 108 hours of leisure time. Employed women, on average, spend 70 hours a week to work. Out of this, 34 hours are allocated for

market work, 36 hours for housework and 85 hours for leisure. Unemployed women spend 50 per cent more time on leisure and 43 hours on work at home (Malathy, 1994).

Harmoinen (2003) observes that women, on average, spend more time at home regardless of their employment status. The results are similar to the works of Aguiar et al. (2012). Sayer (2005) uses respondent-reported time diary data from three nationally representative studies conducted in 1965, 1975 and 1998. Over the period from 1965 to 1998, the author has seen a decreasing trend in the time allocated to unpaid work by women and an increasing trend in the time allocated to unpaid work by men. Women's time allocated to unpaid care work has decreased on average by 20 minutes, whereas men's time allocated to unpaid care work has increased on average by one hour. However, women continue to do most of the unpaid work. Gimenez Nadal and Sevilla (2012), using the time use data from seven industrialised countries (UK, Norway, Netherlands, Finland, Canada, Australia and the USA) from the 1970s, found out that over the years, there has been a decreasing trend in the total allocation of time towards unpaid care work. Over the years, men tend to increase the allocation of time for unpaid care work, and women's allocation towards unpaid care work has decreased. A gender divide in unpaid work was observed by Eapen and Thomas (2005), and it was found that women in Kerala perform several economic activities like animal husbandry. George et al. (2009) comments that women and men recognise the importance of unpaid care work, but women mostly do it.

Solberg and Wong (1992) conducted a study by categorizing activities into work, leisure, home production and work-related travel. They observed that as wages of either the husband or the wife increase, time allocated to leisure increases for both, but the increase in the leisure time of husbands is greater than that of the wives. The study emphasises the need to include travel time as an independent variable, as they found a significant relationship between travel time and home production. A significant conclusion of Aguiar et al. (2012) is that in the US, time allocated for leisure is increasing, and time allocated for household production is on the fall. An important observation of Gimenez Nadal and Sevilla (2012) is that the time allocated to watching television is rising. The unemployed spend more time on leisure than the employed. George et al. (2009) found that average women spend 16 hours a day on paid and unpaid work. This limits them from enjoying leisure.

### 3. Data and Methods

Primary data is used to meet the objectives of the study. The area of study is Maradu Municipality in Kanayannoor Taluk, Ernakulam district. The study group is women. The sample size is 77 of which 44 are employed women and 33 are unemployed women. The study population is stratified into two groups based on their employment status. A convenience sampling technique is used to select the sample. The survey method is a personal interview with the help of a structured schedule. For Analysis, inferential statistics (non-parametric tests) is used.

### 4. Results

The total sample size is 77 and out of them 79.22 per cent fall in the general category. 11.7 per cent, 6.49 per cent and 2.59 per cent of the sample belong to the categories OBC, SC and ST respectively. 10 per cent of the respondents fall in the APL category, whereas 3.90 per cent of the sample belong to the BPL category. 74.04 per cent of the respondents are Christians. 24.67 per cent of the sample are Hindus, and 1.29 per cent of the respondents are Muslims. 31.2 per cent of the sample are married women, and 68.8 per cent are not currently married. Out of the 53 women who are currently unmarried, 50 (64.9 per cent) have never married, 2 (2.6 per cent) are widowed, and 1 (1.3 per cent) is separated/divorced. 64 (83 per cent) respondents have a nuclear family (consisting of parents and child/children), whereas 13 (17 per cent) belong to a joint family (consisting of different generations of parents and children). The mean number of household members is found to be 4.31. The most frequent number of household members is 4 (n=22). The lowest observed value is 2 members, and the highest is 12.

Table 4.1 Summary Statistics

Variable	Employed Mean (sd)	Unemployed Mean (sd)
Age	35.1(10.4)	36.8(13.7)
Household Income	285477.2(553417)	151642.4(515661.6)
Members in Household	4.5(1.9)	4.1(1.5)
Number of Household members aged 60 or above	.82(.95)	.70(.77)
Number of Household members below the age of 18	.77(1.1)	.79(1.7)
Number of Household members below the age of 10	.43(.8)	.45(.9)
Time Allocation to Household Work	3.84(1.8)	5.1(3)
Average Sleep per night (in hrs)	2.64(1.0)	2.91(.8)
Average Time Allotted for Rest Per Day (in hrs)	2.36(1.3)	2.70(.99)
Average Time Allotted for Leisure Per Day (in hrs)	1.2386 (1.1)	2.1439 (1.1)

Source: Primary Survey

The Mann-Whitney U Test results for comparison of means of employed and unemployed women are detailed in Table 4.2. It is evident that there is a highly significant difference in the average time allocated to leisure by employed and unemployed women. While employed women, on average, spend only 1.24 hours a day on leisure, unemployed women spend 2.14 hours a day on the same. The difference of 0.91 hours a day is found to be significant at .01. A significant result is that there is no significant difference in the time allocated to housework by unemployed and employed women. This shows that women spend significant time on housework regardless of their employment status.

Table 4.2 Mann Whitney U Test Results for comparison of means of employed and unemployed women.

Variable
Leisure Time
Housework Time
Sleep Time
Rest Time

\*\*\*significant at 1 %

\*\* significant at 5 %

Source: Primary Survey

## 5. Discussion and Conclusion

This study analyses the nature and magnitude of women's unpaid work based on their employment status. It also goes by the comparative differences in the amount of leisure employed and unemployed women enjoy. Although the study does not measure the gender gap in unpaid care work, it measures the levels of unpaid care work done by employed and unemployed women. This can serve as an indicator of the impact of unpaid care work on the employment status of women. The study's findings imply that there is no significant difference in the magnitude of unpaid work done by employed and unemployed women. This

could be because women are primarily seen as carers and men as breadwinners. Historically, women have contributed more to unpaid care work than men in the household regardless of their employment status. This means that employment status has no significant effect on the magnitude of unpaid care work of women. However, employment status is a significant factor contributing to the differences in leisure of women. This may potentially be due to the time availability of unemployed women. Unemployed women have more time available than employed women, which could enable them to enjoy more leisure time. This time availability theory is not applicable to housework as it is gender and not employment status, which mostly determines the time allocation to housework.

The value of the work done by the housewife is ignored in mainstream economics. Unpaid work is 'unpaid'. This does not mean that there is no value for that. The calculation of national income does not consider the value added at the household level. It carries some imputed cost. To fulfil the housewife's duties, women compromise their paid work, leisure, rest, and sleep. Employment of a servant at home could substitute women in most of their work. This involves some cost. So, the fact that household work and care work involve some imputed costs and opportunity costs brings this topic to mainstream economics. A true market valuing mechanism should be adopted at the national and international levels to acknowledge the work in the household.

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