



# The Impact of Household Income Differences on the Division of Unpaid Work in the Household

## A quantitative study based on middle-aged families in China

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**Abstract.** The balance between paid and unpaid work is slowly recovering as the concept of equality progress and women's voice is further strengthened, and women are no longer taken for granted as sole bearers of home care activities, without having to sacrifice paid work hours to cater to the need for unpaid work at home. Although men are also disproportionately involved in-home care activities, women are nonetheless responsible for most of the day-to-day household chores and care for family members. The heavy burden of family care makes women dissatisfied with the existing division of labour, which in turn leads to many family disputes. This paper adopts the research method of questionnaire survey, takes Chinese middle-aged families as the survey object, selects income as the main research factor, and discusses the impact of family income on family unpaid labor. The results show that with the increase in family income, the total time spent on unpaid work in the family presents a trend of first decreasing and then increasing, and children and residence also affect the distribution of unpaid work in the family along with the income. Although the research sample of this paper is relatively limited, it will still provide relevant enlightenment for family sociology research.

**Keywords:** Unpaid work, Household income, Middle-aged families.

## 1 Introduction

Since ancient times in China, the man is said to be the head of the household and the woman is the head of the family. The feudal rituals naturally divided the work between men and women, i.e. men were responsible for earning money outside and women were responsible for taking care of the household chores.

Unpaid work in the home, including household chores, caring for family members and others, and providing community services [1]. As time has progressed, for unpaid work, women's participation has declined, especially for those who are working, while men's participation has continued and slowly increased [2-4]. Esping-Andersen and

Schmitt pointed out that unpaid work was a key factor in explaining gender differences in income, occupational prestige and upward mobility [5]. Menon highlighted the importance of unpaid domestic work for the economy, stating that, “gender-based labour segregation is key to sustaining the household and the economy, as if this unpaid domestic work had to be paid for by the husband or employer, the economy would collapse like a house of cards” [6]15.

As the value of commodities, domestic work is a combination of concrete and abstract labour, and the value it creates should be part of social value, just like the value of other labour. The measurement of the socially necessary labour time of domestic work requires a reference system as a yardstick. Some scholars believed that the value of the socially necessary labour time of domestic work could be measured by taking the labour output per unit of time of domestic service workers engaged in integrated domestic work [7]. Some scholars also believed that different domestic work and social work should be substituted for the closer industry as the standard for estimating socially necessary labour time [8].

Although unpaid work plays a key function in the economy, it is not regarded as productive work in measurement of productivity or GDP. As a result, unpaid work in the home is neglected and has less status than paid work due to its lack of more significant economic value. Weinrobe argued that the national accounting process only took into account the contribution of market-based output and did not take into account changes in non-market-based output such as domestic work, resulting in a significant underestimation of gross domestic product [9]. Beckerv argued that domestic work should be included in GDP accounting because domestic workers contributed a significant amount of labour time to household production, created significant value and deserved to be as important a component of a country's GDP as other goods and services [10].

Many couples are not satisfied with the work-life balance, which is especially problematic for women [11]. According to a collection of 133 time-use surveys conducted in 76 nations/regions over the last two decades, Charmes reported that women spent far more time on unpaid work at home than men, and that three-quarters of unpaid work, or more than 75% of total hours, was undertaken by women globally [1]. Other studies had also demonstrated that there was no country in which women and men undertake the same portion of unpaid work [12]. However, in addition to the high gender differences in the time of providing unpaid work, the types of unpaid work performed by different genders are also differentiated decomposed [13][14]. On average, men spent only slightly more time on housework, while fathers spent more time on childcare, and mothers still spent two to three times more time per day on their children than fathers [11]. This reflected the society's expectation for the role expectations of mothers as domestic workers and fathers as breadwinners. It is mother rather than father, who will usually adapt their work patterns to meet home care needs of their families [15][16].

There are currently two types of theories in the study of domestic work, one is the use of gender-culture theory to explain the above problem, and cross-national studies have shown that gender-culture theory has more explanatory power than social exchange theory [17]. The economic dependency theory suggests that there is a negative relationship between the amount of time a wife spends on housework and her husband's

income and that the more dependent a wife is on her husband's income, the more housework she performs [18]. While the relative resources theory suggests that there is a negative relationship between the amount of time a wife spends on housework and her husband's income. The relative resource theory suggests that the spouse with more resources in terms of education, income and occupational status is more likely to do less unwanted housework [19].

From the time availability approach to the bargaining and independent sphere perspective [20-22], to the gender display approach [23-25], most of these theories emphasize that the unpaid segmentation of labour inside the household is caused by gendered power relations, which in turn are caused by a variety of factors: some of them are quantifiable, such as personal economic assets and education level, while others are less quantifiable, such as social status, public support system or social cognition, or views on contribution and need [26].

Household income, as a quantifiable indicator, has a stronger influence on comparing the distribution of unpaid work both across households and within households. Households with higher total household income tend to outsource household work, thereby reducing the total allocation of unpaid work, based on which intra-household division of labour can then take place. Within households, the higher the individual's income and the higher the percentage of total household income, the greater the bargaining power of the partner to influence the division of household work and whether the division of household and childcare work is in his/her interest [12]. However, the extent to which income influences the division of unpaid work is still not precisely established.

To further investigate the changing division of unpaid work in households in China, this paper selected middle-aged households between the ages of 35 and 55, which were generally characterised by a stable source of income and the presence of children and elderly people to raise and support, and faced the dual pressure of paid and unpaid work.

## 2 Methods

This paper adopted the research method of questionnaire survey to further investigate the impact of household income on the division of unpaid work in the household, using the middle-aged households in China as respondents. The questionnaire contained basic information (gender, age, occupation, education level, etc.) and core information. In the core information section, we focused on what type of unpaid work couples did and the proportion of unpaid work they put into the household, controlling for variables such as number of children, age of children, and help from outsiders (domestic/elders), to examine the effect of household income on the distribution of unpaid work among couples, as well as on the distribution of work among families with different income levels.

The survey selected middle-aged married households aged 35-55 as the respondents, and adopted non-probability sampling. 440 questionnaires were distributed and 358 questionnaires were returned, with 322 valid questionnaires. There are 75 males and 247 females, with a gender ratio of 1:3.3. The sample was not selected in a representative manner and the sampling process was not standardised, mainly targeting parents of college students as well as their friends and colleagues. The high number of people with

higher education and higher income in this category had an impact on the data collection. And the questionnaire was designed to cover factors such as income and children's situation, which involve personal privacy, and the data collected is prone to bias compared to the real situation.

According to the collected data, 275 people were satisfied with the current situation of unpaid division of labour in the family, accounting for 85% of the surveyed people, and only 15% of the people were dissatisfied with the current situation of the allocation of labour. The distribution of labour was satisfactory. We divided the reasons for family satisfaction with the division of labour in the sample into three levels: the reasons at the family level account for a large proportion, and the main reasons included reasonable division of labour and family harmony, each accounting for more than 30% of the family reasons; the reasons at the personal level, such as a nanny or elder; there are other levels of reasons, such as emotional needs and personal habits. Similarly, by summarizing the reasons why sample families were dissatisfied with the division of labour, it was found that they could also be divided into the above three levels, of which the family level still accounted for a large proportion, which was mainly caused by the unreasonable division of labour; the individual level mainly thought that the burden was too heavy; Other levels included dissatisfaction due to guilt and anxiety.

While most people were satisfied with the current division of labour, 31% wanted their spouses to be more involved or get more emotional support, especially women, with more than half wanting a more rational division of labour.

According to the set requirements of the Logit log-linear model, we divided the dependent variable time into two categories: the weekly family unpaid work time was less than or equal to 7 hours and more than 7 hours, with 150 and 172 people, respectively, accounting for the total number of valid samples 46% and 54%. Entered in the form of data recorded in the interaction unit, there were a total of 7 variables, the first six variables were categorical variables, sex represented gender, codes 1 and 2 represented women and men; home represented permanent residence, codes 1 and 2 represented rural areas and city; feeling represented the relationship with the partner, codes 1 to 5 represented very bad, relatively bad, average, relatively good, and very good; children represented the number of children; income represented monthly income, codes 1, 2 and 3 represent less than 2,000 yuan, 2,000-5,000 yuan, and more than 5,000 yuan; for the dependent variable, codes 1 and 2 represented weekly unpaid working hours of the family less than or equal to 7 hours and more than 7 hours. These variables made up a 600-unit interaction table ( $2 \times 2 \times 5 \times 5 \times 3 \times 2$ ).

In the logistic model, we considered the influence of the main effect, and at the 5% level of significance, the parameter estimation results and the test analysis report could be obtained, and the items with statistical significance were selected from them.

The odds ratio of the above results could be obtained by setting the last parameter of each variable to zero. We chose monthly income as the main research object, and we could find that when the family's unpaid work time was less than or equalled to 7 hours per week, people with an income of less than 2,000 yuan had a less unpaid work time at home than those with an income of more than 5,000 yuan. When the income was between 2,000 yuan and 5,000 yuan, there would be higher unpaid working hours for families than for the high-wage group. Therefore, we could find that the family's unpaid

working time was related to the income of the main analysis variable we chose. In addition, the family's permanent residence and the number of children were also important factors that affected the family's unpaid working time.

**Table 1.** Parameter estimate

Parameter	Estimated value	Standard error	Z	Significance	95% confidence interval	
					lower limit	upper limit
[time=1]	-21.026	1.172	-17.937	.000	-23.323	-18.728
[time=1] * [home=1]	.677	.338	2.001	.045	.014	1.340
[time=1] * [children=1]	21.556	1.276	16.893	.000	19.055	24.057
[time=1] * [children=2]	20.986	1.145	18.336	.000	18.743	23.229
[time =1] * [children=3]	20.713	1.157	17.903	.000	18.445	22.981
[time =1] * [income=1]	-.519	.411	-1.262	.027	-1.325	.287
[time=1] * [income=2]	.336	.273	1.231	.048	-.199	.872

Model: Logit log-linear model

Design: constant + time + time \* sex + time \* home + time \* feeling + time \* children + time \* income

### 3 Results and discussion

#### 3.1 Gender differences in unpaid working hours for families

##### 3.1.1 One child in cities.

It can be seen that when the permanent residence in the city and the family is a single child, the unpaid working hours of the male family are less than that of the female, and there is a relatively obvious gender difference. And compared to rural areas, most urban families are single-child.

##### 3.1.2. Many children in cities.

It can be seen that when the permanent residence is in the city and the family has many children, the unpaid working hours of males are more than that of females, and there are obvious gender differences.

##### 3.1.3. One child in rural areas.

Because the number of rural samples in the survey is relatively minor, and most of them are families with multiple children, the sample size is small, but rural families generally have fewer unpaid working hours.

#### **3.1.4. Many children in rural areas.**

It can be seen that in the case of many children in rural areas, the gender difference in unpaid family work is smaller. Therefore, we can conclude that there is a big difference between different genders in the time of unpaid family work in urban areas, but this phenomenon is not significant in rural areas.

### **3.2 The income differences of unpaid working hours of families**

#### **3.2.1. One child in urban areas.**

It can be seen that when the permanent residence is a city and the family has a single child when the family income is less than 2,000 yuan, there will be more unpaid working hours in the family, and the data shows that this group of people is mostly women. Being a housewife will have more time for housework. When the income is more than 2,000 yuan, the amount of external work undertaken by the family is basically the same, and there is little difference in the family's unpaid working hours.

#### **3.2.2. Multiple children in urban areas.**

Similar to the situation with single children, with the increase in monthly income, the family's unpaid working hours first showed a downward trend, but after the monthly income exceeded 5,000 yuan, it rose again, and most of them appeared in women. According to previous research, more men's income is more in line with social expectations. When women's income gradually rises higher than that of their partners, men tend to have a strong sense of crisis. Women with high incomes will choose to do more compensatory unpaid work to make up for their partners. Experienced utility loss.

#### **3.2.3. One child in rural areas.**

When the permanent residents are in rural areas, due to the small sample size, we still cannot guarantee that the results are sufficiently representative and accurate, but in contrast, with the increase in monthly income, the time of family unpaid work also shows a first decrease and then rising trend.

#### **3.2.4. Many children in rural areas.**

The monthly income of rural families with many children is generally less than 2,000 yuan, and with the increase in monthly income, family unpaid work first decreases and then increases, which is in line with the general trend of change.

### **3.3 Urban and rural differences in unpaid working hours of families**

The research shows that the total hours of unpaid family work of respondents living in cities are longer than that of respondents living in rural areas, and the proportion of the former doing more than 7 hours of unpaid family work per week on average is much higher than the latter. Although the main undertakers of unpaid family work in the two places are all women, in rural areas the gender responsibilities tend to be more equal,

showing a phenomenon of gender convergence. After introducing the variable of children, the total unpaid work time of families with multiple children is longer than that of single-child families, showing the same trend in urban and rural areas, but the investment ratio of males and females is different. In cities, men in multiple-child households are more likely than men in single-child households to devote themselves to unpaid work at home, with a 28% increment in the number of hours invested more than seven hours a week, while women show a downward trend (from 58% to 52%), but still bearers of unpaid family work. Rural residents showed the opposite trend, that is, as the number of children increased, male participation decreased, while female participation increased. After the income variable was introduced, the respondents living in both urban and rural areas showed the same trend, that is, as the total household income increased, the total hours of unpaid family work showed a trend of first decreasing and then increasing. In urban areas, high-income households spend less (9.5% less on average) per week on unpaid work than low-income households, regardless of whether they are multi- or single-child households, while the opposite trend is seen in rural areas.

## 4 Conclusion

Based on gender-culture theory, social exchange theory and bargaining theory and so on, this paper selected income as the main factor to discuss the factors affecting the unpaid division of labour in families and demonstrated the rationality of selecting this factor through the Logit log-linear model. Gender, residence, and number of children were found as sub-factors to work together with income on the distribution of household unpaid work. Through the analysis of questionnaire data, it was found that the main body of housework in Chinese middle-aged married families (35-55 years old) was still women, and the proportion of women who spent more than 7 hours of unpaid work at home per week was 3.86 times that of men. There was still a gender imbalance in housework. Although 85% of the respondents in the survey were satisfied with the current state of the division of labour, it was still crucial to adjust the structure of the unpaid family division of labour in combination with the opinions of groups who were dissatisfied with the division of labour and their expectations for future division of labour.

The descriptive findings reveal that unpaid work generally shows opposite trends between urban and rural households, including the total hours spent on unpaid work in the home, the average weekly hours, and the distribution ratio between men and women. But both show the same trend when considering the income variable, that is, with the increase in household income, the total unpaid working time shows a trend of first decreasing and then increasing. Due to the higher disposable income of middle- and high-income families, with the help of external forces (such as elders and housekeepers), the overall workload of unpaid work is reduced, and the whole family spends less time and energy on unpaid work. It can be said that with the increase in income the basis for the distribution of unpaid family work has been improved, laying a better foundation for subsequent distribution between men and women. In follow-up research,

we will focus on high-income households and further study the distribution of unpaid work between men and women.

## References

1. J. Charmes, *The Unpaid Care Work and the Labour Market: An analysis of time use data based on the latest world compilation of time-use surveys*, International Labour Office, Geneva: ILO, 2019.
2. J. Gershuny, *Changing Times: Work and Leisure in Postindustrial Society*, Oxford: Oxford University Press, 2000.
3. J. L. Hook, *Care in context: Men's unpaid work in 20 countries, 1965-2003*, *American Sociological Review*, 2006, 71(4), pp.639 -60.
4. J. P. Robinson, G. Godbey, *Time for Life: The Surprising Ways Americans Use their Time*, Pennsylvania: Pennsylvania States University Press, 1997.
5. E. A. Gösta, C. Schmitt, *Multi-dimensional couple bargaining and housework allocation*, *Acta Sociologica*, 2020, 63 (1), pp.3-22.
6. N. Menon, *Seeing like a Feminist*, Penguin Books, 2014.
7. Q. Dai, *An analysis of accounting for the output of domestic work*, *Statistics and Decision Making*, 2010 (20), pp.7-10.
8. F. Wang, *The measurement of domestic work*, *Energy Base Construction*, 1998 (6), pp.59-60.
9. T. A. Weinrobe, *Estimating Intra-household Allocation in a Collective Model With Household Production*, *Journal of Production Economics*, 1974 (11), pp.89-102.
10. G. A. Becker, *Treatise on the Family*, Cambridge: Harvard University Press, 1985.
11. L. Craig, J. Brown, *Feeling rushed: Gendered time quality, work hours, work schedules and spousal crossover*, *Journal of Marriage and Family*, 2017, 79(1), pp.225-242.
12. D. Judith, D. Franziska, L. Vanessa, M. Katharina S. Eva. *Home, sweet home? The impact of working from home on the division of unpaid work during the COVID-19 lockdown*, *PLOS ONE*, 2021, 16. e0259580. DOI: 10.31235/osf.io/5ypb2
13. G. Sanjiv, M. Evertsson, D. Grunow, M. Nermo, L. S. Sayer, *The economic gap among women in time spent on housework in Former West Germany and Sweden*, *Journal of Comparative Family Studies*, 2015, 46 (2), pp.181-201.
14. V. Giacomo, *The social stratification of time use patterns*. *British Journal of Sociology*, 2020, 71(4), pp.658-679.
15. G. Ranson, *Men, paid employment and family responsibilities: Conceptualizing the working father*, *Gender, Work and Organization*, 2012, 15(6), pp.741-761.
16. T. Warren, E. Fox, G. Pascall, *Innovative social policies: Implications for work-life balance among low-waged women in England*, *Gender, Work and Organization*, 2009, 16(1), pp.126-150.
17. F. Chen, *Employment Transitions and the Household Division of Labor in China*, *Social Forces*, 2005, 84(2), pp.831-851.
18. J. Baxter, B. Hewitt, M. Haynes, *Life Courses Transitions and Housework: Marriage, Parenthood, and Time on Housework*, *Journal of Marriage and Family*, 2008, 70(2), pp. 259-272.
19. R. Saenz, W. J. Goudy, F. O. Lorenz, *The Effects of Employment and Marital Relations on Depression among Mexican American Woman*, *Journal of Marriage and Family*, 1989, 51(1), pp. 239-251.



20. S. M. Bianchi, M. A. Milkie, L. C. Sayer, J. P. Robinson, Is anyone doing the housework? Trends in the gender division of household labor, *Social Forces*, 2000, 79(1), pp. 191-228.
21. S. Lundberg, R. A. Pollak, Separate spheres bargaining and the marriage market, *Journal of Political Economy*, 1993, 101(6), pp.988-1010.
22. S. Lundberg, R. A. Pollak, *Family decision making*, London: Palgrave Macmillan, 2016, pp.1-8.
23. J. Brines, Economic dependency, gender, and the division of labor at home, *American Journal of Sociology*, 1994, 100(3), pp.652-688.
24. T. N. Greenstein, Economic dependence, gender, and the division of labor in the home: A replication and extension, *Journal of Marriage and Family*, 2000, 62(2), pp.322-335.
25. M. Bittman, P. England, L. Sayer, N. Folbre, G. Matheson, When does gender trump money? Bargaining and time in household work, *American Journal of Sociology*, 2003, 109(1), pp.186-214.
26. B. Agarwal, *Bargaining and gender relations: Within and beyond the household*, Routledge, 1997.

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