# Working Women's Choices for Domestic Help The Effects of Financial and Time Resources 

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Working Women's Choices for Domestic Help
The Effects of Financial and Time Resources


#### Abstract

Household services are increasing. Which households consume these services, in particular domestic help? This article tests whether time and financial resources influence the use of domestic help, performing logistic regression analyses with the WWIQ-2000/0I-data ( $\mathrm{N}=10,969$ ), addressing working women in the Netherlands. The use of paid domestic cleaning services is highly dependent upon a woman's working hours, supervisory position and hourly wages. It is to a minor extent dependent upon children and partner. Age and high education have a substantial impact. The factors influencing paid domestic help predict neither occasional and unpaid help, nor the number of hours of paid domestic help.


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## I INTRODUCTION

Over the last few decades, Western societies have experienced some remarkable changes. One of the most striking developments has been the increasing labor force participation of women. Consequently, strategies to combine the conflicting demands of home and work- such as household services and increasing productivity by technology-have been increasingly employed and investigated, most of them in this journal (Bellante and Foster, I984; Oropesa, I993a; Strober and Weinberg, 1980; Weinberg and Winer, 1983, Zick and McCullough, 1996). Consuming market substitutes for nonmarket work can diminish the demands of the "second shift" at home (Hochschild, 1989). Despite the recent growth in the provision of household services, there is still a large unmet need for these services, which is expected to grow as a result of social and demographic trends-according to a recent seven EU-member states study (Cancedda, 2001). In the US (Hochschild, 1997) and in Australia (Bittman, Matheson and Meagher, 1999), domestic help is an increasingly feasible alternative for households. Freeman and Schettkat (2002) refer to this process as the marketization of household production, which is more ahead in the US than in the European Union.

The concept of household services is somewhat vague, but here it is defined as the provision of services in the market that substitutes unwaged homework. This study limits the demand for household services to domestic cleaning services, excluding convenience and related services. Domestic cleaning is the largest time-demanding category within household production. Almost two-thirds of all housework hours are spent on cleaning (Bianchi et al., 2000). When attempting to reduce household time, working women will therefore particularly profit from transferring cleaning duties to domestic cleaning services. Having domestic help implies on average more than one and a half hours per week less cleaning for working women (Tijdens, van der Lippe, de Ruijter, 2004, forthcoming).

Central to this article is the substitution of domestic work by market services, addressing the issue to what extent this choice is driven by financial resources and time resources. This study is limited to working women, because decisions on substituting domestic work are primarily theirs. It is also limited to the Netherlands. The country's high percentage of part-time jobs makes it particularly suited for examining the trade-off between household time and market time. In the Netherlands, working hours are to a large extent negotiable between employer and employee, and it is quite likely that the employee sets the number of hours and the employer sets the timing of work. The next section reviews the literature explaining the demand for domestic help, resulting in hypotheses about the influence of time and financial resources on the use of domestic cleaning services. Section 3 presents the data and the main descriptive statistics. Then, the regression results on the impact of
the time resources on the use of domestic cleaning services are examined, followed by the results on the impact of financial resources. Finally, conclusions are drawn.

## 2 Explaining the Demand for Domestic Help

According to household economics (Becker, 1981), the household has to decide either to consume the home-produced good or the market product, that is, to decide to do the cleaning themselves or to hire domestic cleaning services. Home production mainly requires time as input, while the market product requires financial resources, usually obtained by earnings in the wage economy. The choice between the two 'production alternatives' depends on both time resources and financial resources, as will be discussed in this section.

Obviously, there are different kinds of domestic cleaning services. Most frequently, the household pays for domestic workers, but incidentally households make use of unpaid or occasional domestic help. Reasons to use paid or unpaid domestic help will differ, and therefore the expectations in our study will differ as well. If necessary, expectations are differentiated for paid, unpaid, and occasional help.

## 2.I Financial Resources

The financial resources argument proceeds from the assumption that domestic outsourcing alternatives are purchased on the market as substitutes for the household labor performed at home (e.g., Oropesa, 1993b). Because time needed for domestic production can also be spent on paid labor, the price of the home-produced goods can be expressed in foregone earnings or opportunity costs. Because domestic services enable individuals to spend their time on other activities, such as paid labor, it can be hypothesized that the higher the (potential) wage rate, the more attractive it is to spend time on the labor market rather than on domestic production. Especially the price of women's time influences the demand for domestic services, because it usually is the woman who is responsible for domestic work (Bianchi et al, 2000; Hochschild, 1989). This argument assumes that time allocation and outsourcing decisions are taken simultaneously.

A number of studies address the effects of financial resources on the demand for domestic services. Most studies focus solely on monthly household income of wife's or husband's wage rate and find the expected effect on the use of housekeeping services (Bellante and Foster, I984, Bittman et al., 1999, Cohen, I998, Oropesa, I993b, Tijdens, van der Lippe, de Ruijter, 2000, You-Hyun, I993). However, women's financial resources are often found to be the main determinant of domestic service purchases, rather than men's (Cohen, I998). Zick and McCullough (I996) found a positive effect of women's (predicted) wage rate on the use of housekeeping services. Similarly, wife's earnings also have a larger effect on her time spent in housework than husband's earnings (Bianchi, Milkie, Sayer and Robinson, 2000; Van der Lippe and Siegers, 1994). Another more indirect measure
of financial resources is whether the woman is the primary earner in the household. When the household income depends on the labor market participation of the woman, she needs to arrange alternative solutions for domestic labor. Usually, women carry the primary responsibility for household tasks, and therefore they need to make arrangements if the family depends on their income.

The financial resources argument pertains to paid domestic help. The effect of women's wage rate on the use of unpaid or occasional help can be expected to be negligible. Unpaid domestic help usually entails social exchange. For example, family members-not living in the household-may take over some of the cleaning duties of working women. Although not paid directly, this type of help creates an obligation that often requires time input. With increasing wage rates, the costs of social exchange rise, thereby decreasing the attractiveness of unpaid domestic help. In addition, women who are responsible for the household's income can invest less time in repaying obligations created by unpaid help. Occasional help also is not the most attractive alternative with increasing wage rates. Women with a high price of time and women who are primary earners will invest their time in paid work rather constantly, thereby increasing the demand for regular domestic help rather than occasional.

### 2.2 Time Resources

Time resources fall apart into time constraints from work, which determine the availability of time for domestic production, and time demands from home, which determine the time needed for domestic work. To explain the demand for domestic help, it is essential to know how much time households have available for domestic work and how this time is scheduled (e.g., Nock and Kingston, 1984). Time allocation in household economics is considered to be endogenous, and therefore cannot be used as a predictor for the use of timesaving strategies. However, empirical analyses usually disregard the assumption of simultaneity, and take decisions about time allocation for granted when analyzing the demand for and the use of timesaving services.

To get one step further in research on outsourcing decisions it is important to make the time resources more explicit. The time constraints from the job are considered in the time availability explanation (Hiller, 1984), suggesting that men and women participate in housework and childcare to the extent that they have time available for household production. Time constraints following from prior time allocation decisions, such as labor force participation, influence the decisions of households to use domestic help. The higher the time demands from the job, the more likely the woman will make use of paid, unpaid or occasional help.

The most commonly used indicators of time constraints in earlier studies are employment and/or hours worked. Concerning wives' employment as an indicator of time availability, some studies
found the expected positive influence on the use of housekeeping services (Bittman et al., 1999; Tijdens, van der Lippe, de Ruijter, 2000; You-Hyun, 1993). However, other studies found no effect of employment on the use of domestic services (Bellante and Foster, I984; Cohen, I998; Oropesa, I993b; Soberon-Ferrer and Dardis, 1991). Next to hours of paid work, it can also be expected that the job-family compatibility of the job (Glass and Camarigg, 1992) is important for the demand for domestic services. Not just the amount of time spent on paid work is important for work-family conflict, but also when this time is scheduled (Nock and Kingston, 1984). When women can decide on the scheduling of their working hours, the demand for timesaving domestic services is lower. Studies on household time allocation have pointed to the importance of other demanding job characteristics, such as overtime, and a demanding job, for domestic organization (Blair and Lichter, I991; Brayfield, 1995; Kingston and Nock, 1985; Pleck and Staines, I985; Presser, 1994, Wharton, 1994). Women working overtime or having a supervisory position can be expected to hire more domestic services than other women.

The time demands from the home are characterized in the demand capability argument (Coverman, 1985). This explanation states that as the volume of the housework to be done increases, the demand for domestic outsourcing increases as well. The household is a "timegreedy" institution (Coser, 1974). The time demands from the home will increase the demand for all types of help, be it paid, unpaid, or occasional. Families with young children or with a larger number of children have a larger amount of household work to be done, and therefore they are more likely to make use of timesaving goods and services including domestic help. In most studies, however, the presence of young children does not seem to affect the use of housekeeping services (Cohen, 1998; Soberon-Ferrer and Dardis, I991; You-Hyun, I993; Zick and McCullough, 1996). However, Bittman et al. (I999) did find a positive effect of the presence of preschool children on the use of domestic services. Households with children under school age spend almost $10 \%$ more on housekeeping and cleaning services (Bittman et al., 1999). This effect declines as children age. Tijdens, van der Lippe, de Ruijter (2000) also found a positive effect of the number of children on the use of housekeeping services.

The household type is also used as an indicator of the time demands from the home. Single parents can spend less time on their domestic chores than other households, because the 'burden' of household chores rests on the shoulders of only one adult. Single parents are expected to compensate for their reduced time inputs by substituting their own labor by market goods. Therefore, other things being equal, single parents are expected to make more use of domestic outsourcing than two-adult households. Zick and McCullough (1996) indeed found that families headed by single mothers are more likely to purchase housekeeping services than their two-parent counterparts.

The time demands of the household are also important for the extent to which households face work-family conflict (Glass and Camarigg, 1992; Voydanoff and Kelly, I984; Voydanoff, 1988). Therefore, a woman's timesaving attitudes are important. When women cannot realize their desired time allocation pattern, this may have consequences for the type of domestic help women use. When women want to reduce their working hours, they may want to increase their domestic production, and therefore look for temporary timesaving solutions, such as occasional or unpaid domestic help. Women may also not be satisfied with their household hours, and rather decrease their household time. In this case, they will probably strive for long-term, steady arrangements, such as paid domestic help.

### 2.3 HYpotheses

This study aims to understand working women's use of domestic services, in particular paid domestic help, unpaid domestic help, and occasional domestic help. In addition, the study aims to explain the number of hours these helps are employed in the household. The aforementioned effects of time and financial resources on the use of domestic help lead to the following hypotheses:

HI: Financial resources will affect a working woman's use of paid help, but not that of an unpaid or an occasional help. Thus, a working woman's use of paid domestic help will be more likely (a) the higher the wage rate, (b) when being the primary earner in the household, and (c) when having an attitude that an income of her own is important.

H2: Time resources will affect a working woman's use of any help, either paid, unpaid or occasional. Thus, a working woman's use of any type of domestic help will be more likely (a) the more time demanding her job, (b) the more time demanding her household chores, (c) when a timesaving attitude towards household chores is present, and (d) when a time-reducing attitude towards working hours is absent.

H3: Both financial resources and time resources will affect the hours a domestic worker is employed by a working woman. Thus, the hours will increase with (a) the woman's wage rate, (b) the woman being the primary earner, (c) the attitude that an income of her own is important, (d) the woman having a time demanding job, (e) the woman having a time demanding household, and (f) when a timesaving attitude towards household chores is present and a time-reducing attitude towards working hours is absent.

The study is limited to working women, because non-working women do not face time-constraints from their market work. The study is also limited to employees, excluding the female employers and
self-employed, because there may be intervening factors why they make use of domestic help, such as cleaning home-based workplaces.

## 3 DATA AND DESCRIPTIONS

## 3.I The Dataset

The data used to test the hypotheses come from the Women's Wages Indicator Questionnaire, abbreviated to WWIQ-2000/01. The survey addressed working women in wage employment in the Netherlands, and the data are appropriate for investigation, because all variables needed for testing the three hypotheses are covered. The survey was held from September 2000 until May 2001 (Tijdens, 2003). The survey was part of a project that aimed at establishing a wage database, which could be accessed via the Internet to provide visitors with information about average earnings in their peer group in a particular occupation. The project was initiated by the publishing company of the three largest women's weeklies, the largest trade union confederation in the country, and the University of Amsterdam. The questionnaire contained some 60 questions on wages and benefits, working hours, issues concerning work and family life, household and individual characteristics, as well as attitudes and opinions regarding the issues addressed. The questionnaire (I) was enclosed for the subscribers of the three women's magazines, (2) was enclosed in two trade union magazines,
(3) could be accessed via the frequently visited websites of the women's magazines and the trade union confederation. The project generated free publicity in newspapers, radio and television programs. In total, 15,508 questionnaires have been returned, slightly more than half via the Internet.

To examine whether the sample is representative, its distributions as regards working hours, age, education, and industry have been compared to distributions of the female workforce in wage employment, as reflected in the Labor Force Survey 2000 (LFS), which is held by Statistics Netherlands. Compared to the WWIQ-2000/0I, the LFS-2000 reveals a much higher percentage of women in jobs of less than 12 hours a week. Limiting the comparisons to women in jobs of 12 hours and over, the distribution over 12 industry classes reveals that 6 classes show an over- or underrepresentation of less than $2 \%$-points, five classes of $2-5 \%$-points, and one class - the wholesales and retail trade - of nearly 7\%-points. As regards education, the differences between the WWIQ and the LFS vary from 2 to $8 \%$-points. Women with primary school, lower vocational education, and upper vocational education are underrepresented, whereas women with ordinary secondary education, higher vocational college and university education are overrepresented. When crossing four age categories and three working hours categories, the deviation from the LFS is below 2\%-points in almost all cells, except for a slightly higher underrepresentation of the 15-24 years old in jobs of 20 hours and over, and an overrepresentation of nearly 7\%-points for the 25-34 years old in full-time jobs. Thus, as regards industry, education, age and working hours, the WWIQsample resembles the target population rather well, but only for those employed for at least 12 hours a week. The comparison leads to the conclusion that the analyses have to be limited to
women in jobs of 12 hours and over, and that there are not sufficient arguments to weigh the remaining sample. When excluding the observations of women in jobs up to 12 hours, the few employers and self-employed, and the observations with outliers or missing data, the dataset has 10,969 observations.

### 3.2 The Dependent and Independent Variables

The dependent variable in the analyses is the presence of a domestic help, captured by one question in the questionnaire: "Do you have a domestic help?". Four answers could be given: paid help, unpaid help, occasional help, or no help. In case of any help, it was asked for how many hours per week on average. Table I presents the frequencies, percentages and average hours. Almost three out of four working women have no domestic help (73\%). Almost one out of four has paid domestic help ( $22 \%$ ), who on average is employed for 3.3 hours per week. A small group has occasionally domestic help (4\%). This amounts to I. 5 hours per week. The remaining very small group has unpaid domestic help (I\%), who spends on average 6.2 hours per week. Although all boxes could be ticked, only $0.1 \%$ of the sample has two or more types of domestic help.

Table I Frequencies and percentages of working women employing paid help, unpaid help,and occasional help, and the average number of weekly hours these helps are employed.

|  | Frequency | Percent | Average hours |
| :--- | :---: | :---: | :---: |
| paid domestic help | 2,393 | 21.8 | 3.31 |
| unpaid domestic help | 131 | 1.2 | 6.19 |
| occasional domestic help | 424 | 3.9 | 1.48 |
| no domestic help | 8,021 | 73.1 | - |
| Total | 10,969 | 100 | - |

Source: WWIQ-2000/0 I-data, $N=10,969$

According to the financial resources hypothesis I, the effects of three independent variables will be tested, notably the woman's gross hourly wage without benefits or allowances, whether she is the primary earner in the household, and whether she has an attitude to be economically independent. As regards to hourly wages, the bivariate explorations suggest a linear relationship as the percentage of women with paid domestic help increases with the hourly wages (see figure I). No relationship seems to exist between the wage rate and the presence of unpaid or occasional help.

Figure I Working women's hourly wages by paid, unpaid and occasional domestic help,


Source: WWIQ-2000/01-data, $\mathrm{N}=10,969$
According to the time resources hypothesis 2 , the effects of three clusters of independent variables will be tested, notably whether the woman has a time-demanding job, a time-demanding household, and a timesaving attitude. Concerning the time-demanding job, bivariate explorations of the data reveal that women with more working hours, overtime, a supervisory job, being able to determine her own starting and finishing time, and not having enough time to do the job during working hours more often have a domestic help. Other possible indicators of a time-demanding job, such as growing employment in the company, job tenure or promotions appear not to be related to the use of domestic help. As regards working hours, the bivariate relationship is not linear (see figure 2). The largest differences can be found between the categories $<20$ hours and $>=20$ hours, suggesting the use of a dichotomous variable for working hours.

Figure 2 Women's working hours by paid, unpaid and occasional domestic help.


Source: WWIQ-2000/0 I-data, $N=10,969$

The second cluster of independent variables in hypothesis 2 refers to the time demanding household. Yet, the time spent on household chores is not measured directly, as this is endogenous to the model. Therefore, the number of children, their age, and the presence of a full-time employed partner are taken as indicators. The bivariate explorations reveal that the age of children is best reflected by the categories $0-4$ and $4-12$ years of age. As regards the presence of a partner, the effect is not clear on beforehand. Will the partner's contribution to the household chores compensate for the extra housework he causes? For the analyses, it is assumed that this issue is best reflected by three categories, notably a partner with a job of 30 hours and over in contrast to a partner working less than 30 hours a week and no partner at all.

The third cluster of independent variables in hypothesis 2 refers to the presence of timesaving attitudes. Two dichotomous variables have been distinguished, notably a timesaving attitude towards the household chores and a timesaving attitude towards the working hours in the job. It is hypothesized that the presence of domestic help depends on a timesaving attitude regarding household chores or the absence of a time-reducing attitude with regard to working hours. However, again the effects are not clear on beforehand. Is a timesaving attitude with regard to household chores a substitute for domestic help or does it point to the same reason why there is domestic help? Is a preference for fewer working hours an expression of the desire to substitute market work for household chores?

All analyses will be controlled for age (continuous variable) and education (categorical). Some studies report that age is associated with greater expenditures on housekeeping services (Bittman et al., I999; Cohen, I998), but others find no differences by age (Zick and McCullough, I996). Women
with higher education make more use of housekeeping services (Tijdens, van der Lippe, de Ruijter, 2000, forthcoming; Bellante and Foster, 1984; Cohen, I998; Soberon-Ferrer and Dardis, I99I; Yen, 1993). In the analyses, the education variable contains three categories, notably less than high school, 5 or 6 years of high school, and more than high school.

### 3.3 Descriptive Statistics of the Data

Using data from the Women's Wages Survey (WWIQ-2000/01), table 2 presents the row and column percentages of the variables used to test the hypotheses. As regards hypothesis I, the financial resources hypothesis, the table reveals that the percentages of working women with paid and occasional domestic help is higher in higher earnings categories, but that this is not the case for unpaid help. In contrast to expected, women who are primary earners less often have paid help compared to women who are not the primary responsible for the household income. The former group, however, employs occasional help more often.

In examining the effects of a time-demanding job in hypothesis 2 , table 2 shows that the percentages of working women with paid domestic help are higher for women with a working week of 20 hours and over, with a supervisory position, with overtime, and for women who cannot do their job within the time it stands for. Women who cannot set her own starting and finishing time are assumed to have a time-demanding job and thus more likely to employ domestic help. Yet, table 2 reveals the opposite. A woman who can set her own starting and finishing time more often employs paid help. Probably this variable is a proxy for a higher job level. The multivariate analyses will clarify the issue. For unpaid help and occasional help, no clear patterns can be revealed. As regards the time-demanding household, women with a partner holding a job of 30 hours and more, with two or more children at home, and with young children at home more often have a paid help. Again, no clear pattern can be seen for the unpaid and the occasional help. As regards timesaving attitudes, women who want to reduce their household time as well as, in contrast to expected, their working hours more often have paid, unpaid, and occasional help.

For the two control variables, table 2 shows that the percentages of women with paid and occasional domestic help are higher in the high educational category. This pattern does not apply to unpaid help. The oldest age category more often employs paid domestic help, whereas the middle age category more often employs unpaid or occasional help.

To summarize, the table indicates that the time-demanding job, the time-demanding household and the timesaving attitudes all can be expected to influence the presence of paid domestic help in the household. The presence of unpaid help does not reveal a clear pattern, although effects may be
expected from children at home and particularly from young children, as well as from the oldest age category. The presence of occasional help seems to be positioned in between, as the determinants partly seem to follow the explanations for paid help and partly those for unpaid help.

Table 2 Row and column percentages of the variables used in the models for paid help, unpaid help, occasional and no help.


Time resources
Time-demanding job
working hrs < 20
working hrs >=20

| 13.0 | 1.2 | 4.4 | 81.4 | 10.6 |
| :--- | :--- | :--- | :--- | :--- |
| 2.4 | 1.2 | 3.4 | 8.1 | 8.4 |

no supervisory position
22.9
supervisory position 18.6
no overtime 32.2
overtime
19.1
job can be done in time 26.1
job cannot be done in time
19.2
sets own start/finish time 27.5
cannot set own start/finish time
27.3

Time-demanding household
no partner
partner job $<30 \mathrm{hrs}$
partner job > $=30 \mathrm{hrs}$
no children at home
I child at home
2 children at home
no youngest child < 4 yr
youngest child $<4 \mathrm{yr}$
no youngest child $4-12 \mathrm{yr}$
youngest child $4-12 \mathrm{yr}$
18.1
13.6
22.3

Timesaving attitude
does not want to reduce household

| time | 13.5 | 0.9 | 2.9 | 82.7 | 43.6 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| wants to reduce household time | 28.2 | 1.4 | 4.6 | 65.8 | 56.4 |
| does not want to reduce working hrs | 21.5 | 1.0 | 3.7 | 73.8 | 68.0 |
| $\quad$ wants to reduce working hrs | 22.6 | 1.6 | 4.2 | 71.7 | 32.0 |
| Control variables |  |  |  |  |  |
| $\quad$ low education | 14.0 | 1.0 | 3.3 | 81.7 | 16.0 |
| middle education | 16.8 | 1.4 | 3.8 | 78.0 | 43.6 |
| high education | 30.4 | 1.0 | 4.1 | 64.5 | 40.5 |
| age $<30 \mathrm{yr}$ | 10.5 | 1.2 | 2.2 | 86.0 | 25.7 |
| age $30-44 \mathrm{yr}$ | 23.8 | 1.4 | 4.5 | 70.3 | 51.0 |
| age $>=45 \mathrm{yr}$ | 29.9 | 0.7 | 4.3 | 65.1 | 23.3 |

[^0]
## 4 The Impact of Financial Resources and Time Constraints

In hypothesis I, the financial resources hypothesis, a high hourly wage, being the primary earner, and the attitude of desiring an income of their own are assumed to increase the likelihood of paid domestic help, but not that of unpaid or occasional help. Logit analysis has been used to predict the likelihood that a woman employs either type of domestic help, explained from the independent variables (table 3). The hypothesis is partly confirmed. Each additional Euro in a woman's gross hourly wage will increase the likelihood that she employs paid domestic help by II\%. Being the primary earner in the household surprisingly does not increase the likelihood of paid domestic help, but instead decreases the likelihood. The negative effect is substantial (by 35\%). The effect of the desire for an income of one's own is not significant. Given the large dataset, an insignificant coefficient will truly indicate that no effect exists. As regards unpaid and occasional help, the findings in table 3 are according to the expectations. Neither the wage rate, nor the status of primary earner, nor the preference for an income of one's own show a significant effect.

In hypothesis 2, time constraints are assumed to predict equally the presence of paid help, occasional help and unpaid help, because each of them will reduce household time. Therefore, indicators for the time-demanding job, the time-demanding household, and the timesaving attitudes have been included in the logit analysis to predict the presence of all three types of domestic help in a working woman's household (table 3). Yet, the findings differ greatly across the three types of domestic help.

As expected, a woman with a time-demanding job is more likely to employ paid domestic help. A woman holding a job of 20 hours and more is $126 \%$ more likely to employ paid help, compared to a woman in a job less than 20 hours. When she has a supervising job, the likelihood increases by $43 \%$. With regular overtime, the likelihood increases by $16 \%$. No effect is found from whether the job can be done in time. When a woman can set her own starting and finishing time, the likelihood increases by $28 \%$. In contrast to the hypothesis, but in line with the findings in the previous section, setting one's own working times obviously is an indicator for a time-demanding job, and not the opposite. In contrast to the expectations, a time-demanding job does neither affect the presence of unpaid help nor occasional help.

As expected, a working woman with a time-demanding household is more likely to employ paid domestic help, though the findings here are not so convincing compared to those regarding the time-demanding job. A working woman with a partner holding a job of 30 hours and over and with a child aged 4-I2 are more likely to employ paid domestic help by $50 \%$ respectively $31 \%$. The remaining indicators of a time-demanding household, however, do not reveal significant effects. The presence of unpaid help is only significantly influenced by both a child under the age of 4 and a child
aged 4-I2. The presence of occasional help is only significantly influenced by a partner holding a job of 30 hours and over, no partner at all, and a child aged $4-12$. Thus, in contrast to the expectations, the effects of the time-demanding household differ greatly across the three types of domestic help.

As regards timesaving attitudes, a working woman with a preference for reducing her household time is far more likely to employ paid domestic help, unpaid help and occasional help (by $122 \%$, respectively $54 \%$ and $55 \%$ ). Obviously, a household timesaving attitude is not a substitute for domestic help, but another expression for reducing household time. A working woman with a preference for reducing her working hours is not more likely to employ paid or occasional help, but she is more likely to have unpaid help.

As stated in the previous section, the analyses are controlled for education and age. A woman with a low educational level is less likely to employ paid help, whereas a woman with a high educational level is more likely to do so. Education neither affects the presence of unpaid help nor occasional help. Age influences the presence of paid help and occasional help. Each additional year increases the likelihood with $5 \%$, respectively $3 \%$.

In conclusion, hypothesis I is supported. The financial resources, particularly the woman's own wage rate, predict the presence of paid domestic help, whereas they do not predict the presence of unpaid or occasional help. Surprisingly, women who are the primary earner are not more likely to employ domestic help. The opposite holds true. This leads to the conclusion that couples consisting of a breadwinner and a female secondary earner are most likely to employ paid domestic help, taking into account the female's wage rate. Hypothesis 2 is also supported. The time resources predict the presence of paid domestic help, unpaid help and occasional help. Paid help is better predicted from the time-demanding job, whereas unpaid and occasional help are better predicted from the time-demanding household. For all three types of help, a woman's time-saving attitude towards household chores predicts the presence of domestic help.

Table 3 Coefficients, $t$-values and $\exp (B)$ of the variables used in the models explaining the likelihood that a working woman has paid, unpaid or occasional domestic help from the financial and time resources (logistic regression analyses).

|  | Paid help |  |  | Unpaid help |  |  | Occasional help |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | B | t | $\operatorname{Exp}(\mathrm{B})$ | B | t | $\operatorname{Exp}(\mathrm{B})$ | B | t | Exp(B) |
| Financial resources gross hourly wage in |  |  |  |  |  |  |  |  |  |
| euro | 0.103 | 14.982 | 21.109 | -0.006 | -0.216 | 60.994 | 0.023 | 1.674 | 1.023 |
| primary earner $[0,1]$ wants an own income | -0.422 | -5.132 | 0.656 | 0.057 | 0.213 | 1.058 | -0.097 | -0.581 | 0.907 |
| [0, I] | 0.059 | 0.808 | 1.061 | -0.058 | -0.245 | - 0.944 | 0.093 | 0.633 | 1.097 |
| Time constraints |  |  |  |  |  |  |  |  |  |
| Time-demanding job |  |  |  |  |  |  |  |  |  |
| job >= 20 hours [0,1] | 0.816 | 8.103 | 2.261 | 0.041 | 0.134 | $4 \quad 1.042$ | -0.141 | -0.848 | 0.868 |
| supervising job [0, I] | 0.361 | 6.281 | 1.434 | -0.155 | -0.690 | 0.856 | 0.086 | 0.724 | 1.089 |
| overtime [ 0,1 ] | 0.148 | 2.715 | 1.160 | -0.231 | -1.181 | 10.794 | -0.017 | -0.160 | 0.983 |
| job done in time $[0, \mathrm{I}]$ set own start/finish time | -0.090 | -1.640 | 0.914 | -0.336 | -1.777 | 0.715 | 0.147 | 1.317 | 1.158 |
| [0,1] | 0.246 | 4.692 | -1.279 | 0.143 | 0.779 | 1.154 | -0.168 | -1.590 | 0.845 |
| Time-demanding household partner job > 30 hrs |  |  |  |  |  |  |  |  |  |
| [ $0, \mathrm{I}$ ] | 0.406 | 4.608 | 81.500 | -0.326 | -I.163 | - 0.722 | 0.546 | 2.647 | 1.727 |
| partner [ 0,1 ] | 0.168 | 1.546 | -1.183 | 0.335 | 0.990 | 1.398 | -0.857 | -3.695 | 0.425 |
| number of children | -0.013 | -0.363 | - 0.988 | -0.219 | -1.471 | 10.803 | -0.098 | -1.360 | - 0.907 |
| child < 4 yr [0, l ] | 0.048 | 0.505 | 1.049 | 1.023 | 3.248 | - 2.781 | 0.303 | 1.580 | 1.354 |
| child $4-\mathrm{I} 2 \mathrm{yr}[0, \mathrm{l}]$ | 0.271 | 3.203 | 31.312 | 1.174 | 3.760 | - 3.234 | 0.513 | 3.089 | 1.670 |
| Time-saving attitude reduce household time |  |  |  |  |  |  |  |  |  |
| [0, l$]$ | 0.796 | 14.451 | I 2.217 | 0.435 | 2.271 | 1.544 | 0.441 | 4.100 | 1.554 |
| reduce working hours $[0,1]$ | 0.081 | 1.435 | 51.084 | 0.473 | 2.525 | 51.604 | 0.180 | 1.640 | 1.197 |
| Control variables |  |  |  |  |  |  |  |  |  |
| educational level low | -0.325 | -3.779 | 0.723 | -0.091 | -0.330 | 0.913 | -0.257 | -1.620 | 0.773 |
| educational level high | 0.474 | 8.213 | 1.607 | -0.332 | -1.594 | 40.718 | 0.001 | 0.005 | 1.001 |
| age in years | 0.048 | 14.579 | 1.050 | -0.020 | -1.573 | 30.980 | 0.027 | 4.226 | 1.027 |
| Constant | -6.532 | -29.778 | 0.001 | -3.932 | -5.906 | . 0.020 | -4.553 | -11.895 | 0.011 |
| Chi-square | 1773.80 | df=18 | sign=. 000 | 48.79 | df=18 | sign $=.000$ | 76.62 | df=18 | sign=. 000 |

Source: WWIQ-2000/0I-data, $N=10,969$

Hypothesis 3 aims to predict hours of domestic help. From the 2,393 working women with a paid domestic help, 2,336 provided information about the number of hours the paid helper was employed. After preparing a normal distribution for the hours worked by the paid domestic help, an OLS regression analysis has been performed to examine the hypothesis. The results in table 4 show that the model's $R$ square is low, i.e. the model does not predict very well. The gross hourly wage determines the number of hours paid help is employed, and so do the variables women in a job of 20 hours and over, women holding a supervisory position, women with a partner, the number of children, the presence of a child aged 4-I2, age and a low educational level.

From the I3I working women with unpaid help, I28 provided information about the hours made by the unpaid helper. On average this amounts to 6.2 hours per week. The results of the regression analysis, however, do not reveal a clear explanatory pattern, regardless the fact that the R square is
higher compared to the explanation of the paid help. Women with a partner consume more hours of domestic help compared to women without a partner, and so do women who can do their job in time.

From the 424 working women with unpaid help, 418 provided information about the hours made by the unpaid helper. On average this amounts to 1.5 hours per week. The regression's $R$ square, however, is not very high and only the presence of a partner influences positively the number of hours worked by the occasional helper.

In conclusion, it appears to be far more difficult to predict the hours worked by a paid, unpaid, or occasional helper than the presence of domestic help. The only conclusion to be drawn from this part of the analyses is that a woman's partner increases the number of hours worked by any of the three types of domestic help. Obviously, his contribution to the domestic chores does not compensate for the extra housework he causes. Our hypothesis 3 is rejected.

Table 4 Coefficients and $t$-values of the variables used to explain the hours a paid, unpaid and occasional domestic helper is employed in working women's households from the financial and time resources (working women with domestic help only, OLS regression analyses).

|  | Paid help | Unpaid help |  | Occasional help |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | B | t | B | t | B | t |
| (Constant) | 1.446 | 6.771 | 0.953 | 0.560 | 0.638 | 1.946 |
| Financial resources |  |  |  |  |  |  |
| gross hourly wage in euro | 0.041 | 6.977 | -0.077 | -1.061 | 0.011 | 1.013 |
| primary earner [ 0,1$]$ | -0.039 | -0.520 | 0.065 | 0.103 | 0.146 | 1.012 |
| wants an own income [0, I] | -0.005 | -0.081 | 0.609 | 0.956 | 0.130 | 1.187 |
| Time constraints |  |  |  |  |  |  |
| Time-demanding job |  |  |  |  |  |  |
| job >= 20 hours [ 0,1 ] | 0.204 | 2.101 | 1.356 | 1.829 | 0.341 | 2.721 |
| supervising job [0,1] | 0.117 | 2.326 | 0.015 | 0.030 | -0.095 | -1.099 |
| overtime [0, I] | 0.063 | 1.279 | 0.133 | 0.277 | -0.080 | -1.032 |
| job done in time [ 0,1$]$ | 0.046 | 0.948 | 0.956 | 2.179 | -0.239 | -2.909 |
| set own start/finish time [0, 1] | -0.050 | $-1.064$ | 0.441 | 1.023 | -0.109 | -1.429 |
| Time-demanding household |  |  |  |  |  |  |
| partner job > $30 \mathrm{hrs}[0,1]$ | 0.076 | 0.987 | -0.495 | -0.718 | -0.217 | -1.369 |
| partner [0, I] | 0.328 | 3.163 | 1.564 | 2.002 | 0.412 | 2.317 |
| number of children | 0.084 | 2.769 | 0.193 | 0.403 | 0.026 | 0.490 |
| child $<4 \mathrm{yr}[0, \mathrm{l}]$ | -0.065 | -0.759 | -0.010 | -0.012 | -0.090 | -0.627 |
| child 4-12 yr [0, ] ] | 0.176 | 2.345 | 0.619 | 0.636 | 0.114 | 0.927 |
| Time-saving attitude |  |  |  |  |  |  |
| reduce household time [0,1] | 0.002 | 0.038 | -0.817 | -1.785 | 0.051 | 0.640 |
| reduce working hours [0, I] | 0.075 | 1.484 | -0.148 | -0.317 | 0.078 | 0.966 |
| Control variables |  |  |  |  |  |  |
| educational level low | 0.178 | 2.143 | 0.041 | 0.061 | 0.050 | 0.426 |
| educational level high | 0.000 | -0.005 | -0.643 | -1.363 | 0.037 | 0.434 |
| age in years | 0.013 | 4.298 | 0.035 | 1.060 | 0.000 | 0.085 |
| N | 2,336 |  | 128 |  | 418 |  |
| R square | 0.079 |  | 0.206 |  | 0.075 |  |

## 5 CONCLUSION

In this article, we tested two hypotheses for predicting the presence of domestic help in the household, using the WWIQ-2000/0I-data ( $\mathrm{N}=10,996$ ). Moving beyond earlier research, this study examined the effects of elaborate conceptions of time and financial resources on the demand for various types of domestic help. The WWIQ-2000/0I-questionnaire addresses working women, and is especially useful because it covers many aspects of job and household characteristics. We performed logit analyses to predict which women have domestic help in the household. In addition, it was analyzed how time and financial resources influence the hours of domestic help.

Firstly, the financial resources hypothesis was tested. A high hourly wage, being the primary earner and an attitude of aiming to be an economically independent person were expected to increase the likelihood of paid domestic help. The analyses showed that the gross hourly wages do increase the use of paid domestic help linear: each additional Euro increases the likelihood of paid help by almost II\%. Having an attitude of preferring economically independence does not influence the likelihood of paid domestic help. Finally, and surprisingly, being the primary earner in the household does not increase the likelihood of paid domestic help, but decreases that. Several explanations may be considered. Perhaps women who are the primary earner are less concerned with domestic duties. They may have different standards of cleanliness, or perhaps their partner may take over part of the cleaning chores. Further research would need to include cleanliness standards to control for these types of factors. Similarly, women with a preference for economic independence may have lower standards of cleanliness, thereby decreasing the need for domestic help. Finally, as expected, the financial resources do not influence the presence of occasional or unpaid help.

Secondly, the time resources hypothesis was tested. A time-demanding job, a time-demanding household and a timesaving attitude were expected to increase the likelihood of paid help, occasional help, and unpaid domestic help. Time demands from the job indeed predict the presence of paid domestic help, but contrary to our expectations, hardly account for the presence of occasional or unpaid help. Having a job of more than 20 hours, a supervising job, regular overtime, and autonomy in starting and finishing time increase the likelihood of paid help. Structural market alternatives for domestic work appear to be the main timesaving strategy of busy working women rather than intermittent or non-market alternatives. Concerning the time demands from home, the presence of children aged 4-I2 years increase the likelihood of any type of help, but especially unpaid help, whereas children aged $0-4$ years increase the likelihood of unpaid help only. Women having a partner with more than 30 working hours are more likely to use paid or occasional help. Thus, working women seem to respond to busy life at home because of children and partly because of a full-time employed partner by fluidly fine-tuning outside help with domestic work, arranging
irregular types of domestic help to meet home demands. Singles mainly depend on occasional help to meet their demand for domestic help. Finally, a timesaving attitude towards household chores is important for the prediction. We assumed that a household time-reducing strategy could equally increase or decrease the presence of a paid domestic help. Yet, this does not appear to be the case. Probably, women with a time-reducing strategy are more likely to increase their working hours.

In conclusion, the use of paid domestic cleaning services is highly dependent upon the women's job, particularly working hours, supervisory position and hourly wages. It is to a minor extent dependent upon the family composition. Only dual earners and the presence of children aged 4 to 12 have an impact. Thus, women who live in a dual earner household but who are not responsible for the household income are likely to have paid domestic help. Both age and high education influence the presence of paid help substantially.

This study did not take into account health issues, because these data were not available. However, health reasons may be a major argument for employing domestic help. Future research probably can take this factor into account. However, given our focus on working women, not being able to control for health probably did not affect our results, as health issues also constrain labor force participation.

## References

Andorka, Rudolf (I987), "Time budgets and their uses," Annual Review of Sociology, I3, I49-I64.

Tijdens, Kea (2003) "The dataset, measurement issues and the methodology of the Dutch Wage Indicator Internet Survey," Amsterdam.

Tijdens, Kea.; Tanja Van Der Lippe and Esher De Ruijter (2004), "Outsourcing of domestic tasks and timesaving effects," Journal of Family Issues, (March), vol. 25, no. 2, pp. 216-240(25).

Tijdens, Kea.; Tanja Van Der Lippe and Esher De Ruijter, (2000), "Huishoudelijk werk en de zorg voor kinderen: herverdelen of uitbesteden? [Domestic work and the care for children: redistribution or outsourcing?]", Elsevier Bedrijfsinformatie, The Hague, NL.

Becker, Gary S. (I98I), "A treatise on the family", MA: Harvard University Press, Cambridge.

Bellante, Don and Ann C. Foster (1984), "Working wives and expenditure on services," Journal of Consumer Research, II (September), 700-707.

Bianchi, Suzanne M., Melissa A. Milkie, Liana C. Sayer and John P. Robinson (2000), "Is anyone doing the housework? Trends in the gender division of household labor," Social Forces, 79 (September), I91-228.

Bittman, Michael, George Matheson and Gabrielle Meagher (1999), "The changing boundary between home and market: Australian trends in outsourcing domestic labour," Work, Employment \& Society, 13 (June), 249-273.

Blair, Sampson L. and Daniel T. Lichter (1991), "Measuring the division of household labor: Gender segregation of housework among American couples," Journal of Family Issues, I2 (March), 91II3.

Brayfield, April (1995), "Juggling jobs and kids: the impact of employment schedules on fathers' caring for children," Journal of Marriage and the Family, 57 (May), 32I-332.

Cancedda, Alessandra (2001), "Employment in household services", European Foundation, Dublin.

Cohen, Philip N. (I998), "Replacing housework in the service economy," Gender \& Society I2 (April) 219-232.

Coser, Lewis A. (1974), "Greedy institutions", Free Press, New York.

Coverman, Shelley (1985), "Explaining husbands’ participation in domestic labor," Sociological Quarterly, 26 (February), 8I-97.

Freeman, Richard B. and Ronald Schettkat (2002), "Marketization of production and the US-Europe employment gap", NBER working paper series 8797, Cambridge, MA.

Glass, Jennifer L. and Valerie Camarigg (1992), "Gender, parenthood, and job-family compatibility," American Journal of Sociology, 98 (July), I3I-I5I.

Hiller, Dana V. (1984), "Power dependence and division of family work," Sex Roles, IO (June), I0031019.

Hochschild, Arlie R. (1989), "The second shift," Avon, New York.
(1997), "The time bind. When work becomes home and home becomes work," Metropolitan, New York.

Kingston, Paul W. and Steven L. Nock (I985), "Consequences of the family work day," Journal of Marriage and the Family, 47 (August), 619-630.

Nock, Steven L. and Paul W. Kingston (1984), "The family work day," Journal of Marriage and the Family, 46 (May), 333-343.

Oropesa, R. S. (1993a), "Female labor force participation and timesaving household technology: A case study of the microwave from 1978 to 1989," Journal of Consumer Research, 19 (March), 567-579.
(1993b), "Using the service economy to relieve the double burden. Female labor force participation and service purchases," Journal of Family Issues, I4 (September), 438-473.

Pleck, Joseph H. and Graham L. Staines (1985), "Work schedules and family life in two-earner couples," Journal of Family Issues, 6 (March), 61-82.

Presser, Harriet B. (1994), "Employment schedules among dual-earner spouses and the division of labor by gender," American Sociological Review, 59 (June), 348-364.

Strober, Myra H. and Charles B. Weinberg (1980), "Strategies used by working and non-working wives to reduce time pressures," Journal of Consumer Research, 6 (March), 338-348.

Van der Lippe, Tanja and Jacques Siegers (1994), "Division of household and paid labor between parters: Effects of relative wage rates and social norms," Kyklos, 47 (February), I09-I36.

Voydanoff, Patricia and Robert F. Kelly (1984), "Determinants of work-related family problems among employed parents," Journal of Marriage and the Family, 46 (November), 88I-892.

Voydanoff, Patricia (1988), "Work role characteristics, family structure demands, and work/family conflict," Journal of Marriage and the Family, 50 (August), 749-76I.

Weinberg, Charles B. and Russell S. Winer (1983), "Working wives and major family expenditures: Replication and extension," Journal of Consumer Research, IO (September), 259-263.

Wharton, Carol S. (1994), "Finding time for the "Second Shift": The impact of flexible work schedules on women's double days," Gender \& Society, 8 (June), I89-205.

Yen, Steven T. (1993), "Working wives and food away from home: the Box-Cox double hurdle model," American Journal of Agricultural Economics, 75 (November), 884895.

You-Hyun, Cho (1993), "The Analysis of Household Expenditures for Services," UMI Dissertation Services, Michigan.

Zick, Cathleen D. and Jane McCullough (I996), "Trade-offs between purchased services and time in single-parent and two-parent families," Journal of Consumer Affairs, 30 (Summer), I-23.

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[^0]:    Source: WWIQ-2000/0I-data, $N=10,969$

