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Work and Occupations 2007 34: 205

DOI: 10.1177/0730888406296510

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Effects of Job Features on Domestic Outsourcing as a Strategy for Combining Paid and Domestic Work

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This article examines the influence of job features on domestic outsourcing. The central hypothesis is that households use outsourcing more often if the partners are less available for domestic chores and caregiving because of job demands. Analyses of data on 795 Dutch couples show that if they work longer hours, there is more of a demand for the outsourcing of female tasks. Flexible availability resulting from autonomy and working at home facilitates the use of outsourcing alternatives. Working at home by women reduces the amount of formal child care; however, for men it increases the outsourcing of child care.

Keywords: *flexible work; household outsourcing; work-family issues*

The enormous increase in the number of dual earners has given household organization a prominent place on the social science research agenda. The combination of paid and domestic work has increasingly become a daily reality for Western households. Households and workplaces are “greedy” institutions (Coser, 1974). Especially during family formation and career mobility, paid and domestic work demand time and energy (Glass & Camarigg, 1992). The higher the time demands of paid and domestic work, the more often employees experience work-family conflict (Voydanoff & Kelly, 1984), the lower their productivity is, and the more problems they have in the private sphere, such as depression, stress, and marital difficulties (see Allen, Herst, Bruck, & Sutton, 2000, and Glass & Estes, 1997, for an overview). Gareis and Barnett (2002), however, did not find that higher work demands increase psychological distress; however, it should be noted that their study focused only on a small sample of female doctors in dual-earner couples.

One way to combine paid and domestic work is by outsourcing domestic chores and caregiving. Outsourcing is a substitute for doing one's own domestic chores and caregiving and is thus a strategy to relieve the double burden of paid and domestic work. Outsourcing enables households to reduce the time needed for domestic chores and caregiving. To a certain extent, parental time and child care are two alternatives for taking care of children. Labor-force participation is often not even possible without child care. Examples of outsourcing alternatives include housekeepers, day care, handymen, takeout food, and restaurants. In the United States (Hochschild, 1997) and Australia (Bittman, Matheson, & Meagher, 1999), outsourcing has become a common strategy, and in the Netherlands it is increasingly accepted as well (Van der Lippe, Tijdens, & De Ruijter, 2004; De Ruijter, 2004).

Earlier outsourcing studies mainly focused on the time availability explanation (Hiller, 1984) that households outsource their tasks if they have less time available to perform the tasks themselves. The demand or even the necessity of outsourcing as regards child care depends on the extent to which partners are available for domestic chores and caregiving. A determining factor for the availability of partners is the job situation. Similar to other studies of work-family issues that proceed from the notion of routine 9-to-5 jobs (Perry-Jenkins, Repetti, & Crouter, 2000), prior research on domestic outsourcing only focused to a limited extent on the influence of job demands. Studies mainly focused on the effects of the number of working hours on the use of outsourcing, measured as the number of hours of paid work (Cohen, 1998; Soberon-Ferrer & Dardis, 1991; Yen, 1993) or the earner type (Bellante & Foster, 1984; Bittman et al., 1999; Kim, 1989; Oropesa, 1993). Empirical evidence does not consistently show that households with less time outsource their tasks more often (see De Ruijter, Van der Lippe, & Raub, 2003, for an overview).

The availability of partners for household tasks does not simply depend on the number of working hours. Partners' availability at home also depends on when time is available for household tasks and care and how flexibly employees can deal with domestic demands. For example, men who work different hours than their wives do more domestic chores (Blair & Lichter, 1991; Brayfield, 1995; Kingston & Nock, 1985; Pleck & Staines, 1985; Presser, 1994; Wharton, 1994). There is a range of job resources that lie outside routine 9-to-5 jobs, such as autonomy, shift work, working at home, and flexibility of work hours (Bakker & Geurts, 2004; Estes, 2003; Gerson & Jacobs, 2001; Presser, 2003). Obviously, flexible working hours and locations are restricted to certain types of jobs (Perlow, 2001). Flexibility is often said to facilitate the combination of paid and

domestic work (Pleck, Staines, & Lang, 1980) and thus reduces the demand for alternative strategies such as household outsourcing (Glass & Camarigg, 1992). Due to a dearth of data, studies have focused fairly exclusively on the number of work hours instead of which hours people work (Presser, 2003).

When focusing on the influence of various job features on outsourcing, it is also essential when the time is saved. Certain tasks such as caregiving and cooking are related to specific times of day, and it is particularly these tasks that can be attractive to outsource. In the literature, a distinction is drawn between inflexible core tasks and flexible or occasional tasks that do not have to be performed at specific times (Bianchi, Milkie, Sayer, & Robinson, 2000; Hochschild, 1989). Especially as regards inflexible tasks, it is important when and how flexible employees are available at home. In this article, we examine the effects of partners' working conditions on the outsourcing of two flexible tasks, housecleaning and home maintenance, and two inflexible tasks, cooking and caregiving.

The interests of female and male partners in households often differ, which has consequences for, among others, the division of household labor (e.g., Estes, 2003; Hochschild, 1989). Men and women make different kinds of job-family tradeoffs (Mennino & Brayfield, 2002). For instance, women opt for flexible work arrangements for better child care arrangements (Cox & Presser, 2000; Hinze, 2000; Presser, 2003), whereas men use these arrangements for other job-related reasons (Presser, 2003). Therefore, work and family research should focus on the work schedules of female and male partners rather than on individual job features (Jacobs & Gerson, 2001). We focus on the job features of female and male partners separately. Because singles differ from couples in many respects, we limit the current study to couples to gain insight into the influence of both partners' job features.

Previous outsourcing studies have focused exclusively on the effect of work hours on the use of outsourcing options because of a lack of available data sets that constitute information about household outsourcing and detailed work characteristics. Data sets containing detailed information about the job usually do not provide information about outsourcing strategies and vice versa (e.g., National Child Care Survey, National Survey of Families and Households). Moreover, often only one spouse is interviewed. In the current study, we use data of the 2003 Time Competition survey (conducted in 2003 by Interuniversity Center for Social Science Theory and Methodology [ICS] at Utrecht University and Groningen University) among 795 Dutch couples to examine the extent to which various job features, including flexibility, influence household outsourcing. Our data set is unique because it contains detailed information about the work characteristics of both partners in couple

households, such as work hours, job flexibility, autonomy, work schedules, and so on. This enables us to study to what extent women's and men's work characteristics influence outsourcing decisions. The survey was designed specifically to gain more insight into the causes and solutions to work-home interference and contains information about a diversity of characteristics of the workplace and home, allowing us to test new hypotheses regarding the influence of work on the outsourcing of household and caring tasks.

The Availability of Partners

The decision to outsource household chores depends on the availability of partners to perform these tasks themselves. According to the time availability argument (Hiller, 1984), the availability of partners depends on the time demands made by their jobs. The more limitations their jobs present as regards domestic chores and caregiving, the more attractive and sometimes even necessary it is to outsource these chores and care. Not only is the number of working hours important, as is assumed in earlier outsourcing studies (e.g., Bellante & Foster, 1984; Bittman et al., 1999; Oropesa, 1993), but so are when and how flexible time is available.

As mentioned earlier, we distinguish between flexible and inflexible tasks. For tasks that need to be performed at specific times, such as child care and cooking, it matters when partners' time is available. For these inflexible tasks, someone needs to be home to perform the task. For instance, outsourcing is necessary if neither partner is at home if there are young children that need around-the-clock care. Work flexibility makes it easier for employees to perform inflexible tasks themselves, thereby reducing the demand for outsourcing these tasks. For flexible tasks, such as cleaning and maintenance, it does not matter when they are done. For these tasks, it only matters how much time is available. In this section, we derive hypotheses about the influence of job features on the use of domestic outsourcing options for flexible and inflexible tasks.

Both Partners' Working Hours

Longer working hours limit the extent to which employees are physically available at home (Hiller, 1984; Voydanoff, 1988). If they have less time available for domestic chores and caregiving, their household demands can be met by outsourcing and thus partly giving these tasks to an outsider. The more time people spend on the labor market, the less time they have available

for domestic production and care, and the more attractive it is to outsource domestic and caregiving tasks. Therefore, it is expected that dual earners make more use of outsourcing options than single-earner households. This holds true for flexible tasks and inflexible tasks because both types of tasks require time input, regardless of when or how flexibly this time is available.

Hypothesis 1: Dual-earner couples will use more domestic outsourcing options for flexible and inflexible tasks than single-earner couples.

The earner type hypothesis has been tested in earlier studies. The results of these studies do not present a consistent picture. Dual earners more often use outsourcing alternatives for cooking (Bellante & Foster, 1984; Bittman et al., 1999; Cho, 1993; Kim, 1989; Soberon-Ferrer & Dardis, 1991; Yen, 1993), and they hire more child care (Bellante & Foster, 1984; Cho, 1993; Soberon-Ferrer & Dardis, 1991). However, dual earners do not hire domestic help more often than other earner types (Bellante & Foster, 1984; Bittman et al., 1999; Cho, 1993; Kim, 1989; Soberon-Ferrer & Dardis, 1991). The fact that earlier studies have not taken into account when and how flexible time is available may explain these inconsistent findings.

Overlap of Work Schedules

The availability of partners for household tasks depends not only on their hours of paid work but also depends on when their time is available. The availability of at least one partner for domestic chores and caregiving depends on the combination of the partners' work schedules (Nock & Kingston, 1984; Presser, 1994, 2003; Spitze, 1988). Nock and Kingston (1984) referred to overlap between partners' schedules as the *family work day*. If the partners work 8 hrs at different times of day without any overlap, at least one partner can be at home for the entire day, for example, to take care of the children. If both partners have the same schedule, neither partner will be at home for these 8 hrs, so the care of young children will have to be outsourced during that period. The demand for outsourcing can vary with a constant number of working hours, depending on the partners' combined work schedules. Although it might especially be the women's presence that is important, research has shown that men take over caregiving and domestic chores when their female partner is at work (Blair & Lichter, 1991; Brayfield, 1995; Kingston & Nock, 1985; Presser, 1994; Wharton, 1994). Mothers sometimes even choose evening or night employment because these shifts allow them to share child care with their partner (Brayfield, 1995; Presser, 2003). Male

partners seem to take over tasks if the female partners are unavailable, thus decreasing the demand for outsourcing if there is less overlap of work schedules.

The overlap of partners' working hours is especially important as regards tasks that have to be performed at set times such as cooking or caregiving because at least one partner should be at home to perform these inflexible tasks. If neither partner is available at home, inflexible tasks, such as child care, have to be outsourced. As regards flexible tasks, such as housecleaning and home maintenance, it does not matter whether one or both partners are available at set times.

Hypothesis 2: Couples with more overlap in partners' work schedules will use more domestic outsourcing options, but only for inflexible tasks.

Job Flexibility

Job flexibility can also affect the extent to which households can meet the domestic demands (Bakker & Geurts, 2004; Estes, 2003; Gerson & Jacobs, 2001; Glass & Camarigg, 1992; Presser, 2003). Job features that can facilitate combining paid and domestic work reduce the demand for outsourcing because the employee is available at specific times to do household tasks. The job-family compatibility of employment is an important factor in the organization of domestic chores and caregiving (Glass & Camarigg, 1992). Job flexibility facilitates the combination of paid and domestic work because employees can fluently deal with demands from home (Glass & Camarigg, 1992; Presser, 2003). Employees with flexible jobs outsource fewer tasks because they are more easily available to meet the home demands. This is especially true of inflexible tasks that have to be performed at specific times because only the amount of available time matters for the outsourcing of flexible tasks. Consecutively, the flexibility of working hours and working location is discussed.

Flexible working hours can be determined by the employee or the employer (Gerson & Jacobs, 2001; Presser, 2003). If employees can determine when they are available, they can determine their own availability for domestic chores and caregiving. Greater autonomy thus reduces the demand for household outsourcing. If employees can determine their own working hours, they can decide to start early and have more time at the end of the day to cook dinner and reduce the need for outsourcing. It is assumed that employees will use their autonomy to perform household tasks.

We argue that autonomy only affects the outsourcing of inflexible tasks because more flexible employees can adjust their work schedule so that they are available at home to perform these tasks. At what times employees are at home does not matter for the outsourcing of flexible tasks because these tasks do not have to be done at specific times.

Hypothesis 3: Couples in which partners have greater autonomy will use less domestic outsourcing options, but only for inflexible tasks.

If job flexibility is determined by the employer or is related to the type of work, it is obviously not the result of employee autonomy. This type of flexible working schedule might involve regularly rotating shifts in the schedules such as shift work. Rotating work schedules may make it easier for employees to more flexibly meet the demands from home. However, if employees cannot determine their working hours themselves, they cannot always be available at home when they are needed, for example, when children have to be picked up at school. Only a small proportion of people choose rotating work schedules to facilitate the combination of work and home, whereas the majority works these schedules for job-constraining reasons (Presser, 2003). They thus have to outsource even if they have flexible working hours. So the effect of rotating schedules on the use of household outsourcing is not straightforward: Even if employees are available at home at varying times, they cannot flexibly meet the demands from home. It could well be that the fact that employees cannot determine their own schedules offsets the flexibility advantage of rotating shifts.

If rotating schedules have an advantage because employees' work schedule is flexible, this will only affect the outsourcing of inflexible tasks. Rotating work schedules may make it easier for employees to be at home at times when they are needed for the performance inflexible tasks, whereas flexible tasks do not require employees to be at home at certain tasks. However, because employees cannot determine their own working hours, they may be unavailable at home precisely on times that inflexible tasks need to be done. Therefore, we do not have a clear expectation regarding the influence of rotating work schedules on the use of outsourcing options.

Job location flexibility can also facilitate the combination of work and care. At a growing number of firms and agencies, it is common for employees to work at home for at least one day a week, with or without a computer connection (Peters, Tijdens, & Wetzels, 2004). This type of job flexibility results in greater flexibility in performing domestic chores and caregiving. The employee is available at home and can meet the demands there and perform

certain household and caregiving tasks. Employees do not have to travel to work and thus increase the amount of time they are available at home.

We only expect working at home to decrease the use of outsourcing options for inflexible tasks. Employees are available at home to perform inflexible tasks, for instance to cook dinner, and they may adjust their working hours at home to perform these tasks. It is not necessary to arrange after-school child care because parents who work at home can fetch their children from school and continue working at home afterwards. Working at home does not reduce the need for outsourcing flexible tasks because working at home does not make it easier for employees to perform these tasks themselves. Only the fact that working at home saves commuting time may decrease the demand for outsourcing flexible tasks to some extent.

Hypothesis 4: Couples in which partners work more days at home will use fewer domestic outsourcing options, but only for inflexible tasks.

Control Variables

According to the demand capability argument (Coverman, 1985), the demand for timesaving domestic outsourcing increases with a larger volume of housework. Families with more (young) children and with a larger number of children have a larger amount of household work to be done, and therefore they are more likely to outsource domestic duties. Indicators of the demand/response capability are the number of young children (e.g., Bellante & Foster, 1984; Soberon-Ferrer & Dardis, 1991) and the number of rooms (Van der Lippe et al., 2004). Some studies found that young children affect the use of outsourcing alternatives such as housecleaning (Bittman et al., 1999); however, others did not find an effect (Cohen, 1998; Soberon-Ferrer & Dardis, 1991; Zick & McCullough, 1996). Households with young children make less use of food away from home than other households (Bellante & Foster, 1984; Cho, 1993; Cohen, 1998; Zick & McCullough, 1996). This may indicate that other considerations may be important for the use of food away from home. The importance of the home-cooked meal in households with children (e.g., because children should eat properly), or the price of food away from home (because there are no scale benefits), may deter households with children from eating food away from home.

Another important factor for outsourcing is a household's financial situation. High-income households are more likely to use outsourcing alternatives than low-income households (Bellante & Foster, 1984; Bittman et al., 1999; Cohen, 1998; Oropesa, 1993; Spitze, 1999). Because labor-force participation

is considered an exogenous factor in the current study, we need to consider the household's total monthly income (e.g., Bellante & Foster, 1984; Oropesa, 1993). Other approaches assume that labor-market participation and outsourcing are determined simultaneously and thus include the wage rate or potential wage rate as an indicator of its financial situation. This is not the approach we take in the current study because the availability hypothesis considers labor-force participation a given (Zick & McCullough, 1996). A privately owned home also indicates financial resources (Spitze, 1999). In addition, people attach more value to their home if they own it than if they rent it because they want to protect their investment and take pride in their property (Oropesa, 1993). Women with higher education make more use of housekeeping services, if not prepared food (Bellante & Foster, 1984; Cohen, 1998; Van der Lippe et al., 2004; Soberon-Ferrer & Dardis, 1991; Yen, 1993). Some studies found that age is associated with a higher likelihood of the outsourcing of cleaning and that older people dine out less often (Bittman et al., 1999; Cohen, 1998); however, others did not find age differences (Zick & McCullough, 1996).

The hypotheses are summarized in Table 1.

Data and Method

Data

The data are from the Time Competition survey held in 2003 among Dutch employees. Data were collected using a multistage sample of employees of 30 Dutch firms. This survey was designed to study the causes of and solutions to work-home interference (Van der Lippe & Glebbeek, 2004). Due to the fact that the data collection was aimed to understand time greediness of workplaces, we oversampled knowledge-based organizations because we expected these dynamics to occur especially in these firms.

Within the 30 organizations, we have somewhat more organizations within the service sector than in the Dutch economy. The number of industries is representative of the Netherlands; however, agriculture is underrepresented. Also, large organizations are oversampled. Five organisations have 100 employees or fewer, of which two are smaller than 50 employees. Home interviews were conducted with 1,114 employees and, if applicable, their partners, at a response rate of 29%. In the Netherlands, response rates for interviews at home vary from 25% to 45% in national probability samples (Kalmijn, Bernasco, & Weesie, 1999). The uniqueness of the data set compensates for the response rate of 29%, which seems to be low compared to

Table 1
Expected Effects of Job Features on Outsourcing Flexible and Inflexible Domestic Chores and Caregiving

	Outsourcing Flexible Tasks		Outsourcing Inflexible Tasks	
	Cleaning	Chores	Cooking	Child care
Earner type ^a				
Double earner	++	++	++	++
One-and-a-half earner	+	+	+	+
Overlap partners' work schedules	0	0	+	+
Job flexibility				
Autonomy	0	0	-	-
Rotating work schedule	0	0	?	?
# Days working at home	0	0	-	-
Control variables				
Number of children < 4	+	+	-	+
Number of children 4 – 13	+	+	-	+
Privately owned home	+	+	+	+
Number of rooms	+	+	+	+
Highest educational level	+	+	+	+
Age	?	?	?	?
Monthly income	+	+	+	+

a. Reference group: single earners; + = positive effect, - = negative effect, 0 = no effect.

international standards but reasonable when considering Dutch standards (Kalmijn et al., 1999). The response rate of nearly 30% also seems reasonable, certainly if the two-step contact procedure is taken into account. Employees were first called at work via telephone number lists provided by the organizations. They were requested to participate in the survey and, if willing to do so, were asked to give their home address. This approach was necessary because organizations have to protect the privacy of their employees and therefore cannot provide home addresses. Of the 3,970 employees contacted, 39% agreed to participate. Each employee was subsequently contacted at home to make an appointment for the home interview. Between the two contact moments, employees in couple households had to ask their partner to participate as well. Of all the employees contacted at home, 28% were not interviewed in the end usually because the partner had refused to cooperate. Analyses show that households not willing to cooperate hardly differ on several background characteristics from those that were willing to join the

research. Background characteristics we analyzed include the gender of the employee, educational level, working hours, and family status.

Of the 819 employees who lived with a partner, the employee and the partner were interviewed at home, and both filled in written questionnaires. First, a personal interview was performed with the employee and the partner filled in a written questionnaire in another room, and then roles were changed. The partner was interviewed, and the employee filled in a written questionnaire. The population of employees is very diverse, with their occupations ranging from accountants and financial administrators to police and constructors.

In this article we only use the information on couple households. We have complete information on all the relevant explanatory variables on 795 couples. Slightly more than 70% of all couples in our sample are married. There is an intentional overrepresentation of dual-earner couples in the sample because the data were collected specifically to study the causes of and solutions to work-home interference (Van der Lippe & Glebbeek, 2003). As a consequence, the respondents' educational level are relatively high as well; 57% of the respondents have some college or more compared to 28% nationally. In our analyses, the number of cases varies with the number of couples with information on the dependent variable.

Measurements

The dependent variable in the current study is the outsourcing of domestic chores and caregiving. Two flexible tasks have been studied, (a) the number of hours of domestic help a month and (b) the number of outsourced home maintenance chores in the past 12 months. The outsourcing of two inflexible tasks is also analyzed, (c) the number of times a month takeout food is bought or household members eat outside the home and (d) the total number of hours a month of outsourced formal and informal child care for children younger than age 13 years. Informal child care is given free of charge by family members, friends, acquaintances, or neighbors. Formal child care is paid care provided, for example, by a day care facility or guest parent. As regards informal child care, we focus on care during working hours because care outside working hours mainly pertains to incidental outsourcing such as an evening of babysitting by the grandparents. Job features are not apt to influence this incidental outsourcing. We analyze formal and informal child care separately. Because informal child care is an important outsourcing alternative, it has to be taken into account. However, formal and informal child care differ substantially. If child care is outsourced during working hours, the household has to be certain that help

is available during these hours. This is more difficult for informal than formal child care: The availability of informal help during working hours is more uncertain. This is why the analyses are performed separately for formal and informal child care. For the analyses explaining the use of child care facilities, we have information on 411 couples with children younger than age 13 years. Some parents did not provide information about formal and informal childcare arrangements, leaving 398 cases for the analysis of formal child care, and 373 cases for the analysis of informal child care.

In measuring the explanatory variables, a distinction is drawn between the job features of men and women for their individual characteristics. Families house a diversity of interests (Estes, 2003), and the circumstances of female and male partners may influence outsourcing behavior in different ways. Although no hypotheses are formulated on gender-specific job features, it is not unlikely that gender affects the relation between job features and outsourcing. This distinction cannot be drawn as regards the household characteristics earner type and overlap of working hours.

To measure the hours of paid work, dummy variables for one-and-a-half earners (one partner works 32 hrs or more, the other works between 8 and 32 hrs) and double earners (both work 32 hrs or more) indicating the earner type are included. These variables are constructed using the factual number of working hours. The one-and-a-half earners are almost all traditional one-and-a-half earners, that is, the male works full-time and the female part-time. The analyses have also been conducted with separate dummy variables for traditional ($n = 354$) and nontraditional one-and-a-half earners ($n = 29$); however, these groups do not differ significantly. Couples with one earner or two part-time earners are the reference category.

The partners' work schedule overlap is measured using a dummy variable (1 = overlap, 0 = no overlap). This variable is constructed using information on the work schedules of both partners obtained via two questions. Both partners are asked whether they (a) work in the evening or at night and (b) whether they work on the weekend (no overtime). A couple has a positive score on the overlap variable if they work regular hours, that is, not in the evening, at night, or on the weekend. A couple also has a positive score if they work in the evening, or at night, and not on the weekend. Similarly, a couple scores 1 on the overlap variable if they work on the weekend, but not in the evening or at night. The partners' working hours also overlap if they work in the evening, at night, and on the weekend.

As regards job flexibility, three aspects of both partners' job flexibility are included in the analyses. The higher the value, the greater the flexibility. First,

autonomy is constructed by adding the scores on the following two items: who determines what time you start and finish work (0 = *usually someone else*, 4 = *only me*), and how easy is it to take a day off or work at home if something unexpected happens at home (0 = *not possible*, 4 = *very possible*). The total score is divided by two and ranges from 0 to 4. The following items indicate a rotating work schedule: How long in advance do you know your work schedule (0 = *for the whole year*, 4 = *no rigid work schedule*), and do you end each working day at the same time (0 = yes, 1 = no). The scores on the second item are multiplied by 4, and then the scores on the items are added and divided by 2. Again, the scale ranges from 0 to 4. Analyses with standardized scales yield similar results. The average number of days the female and male partner work at home are included.

In the analyses, we control for the number of children younger than age 4 years and for the number of children between ages 4 and 13 years, indicating of the demand/response capability. The total number of rooms in the house and a dummy variable indicating homeownership are also included. We control for the highest education level in the household (11 categories, varying from 1 = *no preliminary education* to 11 = *PhD, MD*), the respondent's age (continuous variable), and age squared. We also include the net monthly household income in thousands of euros.

Descriptive Results

Table 2 shows the descriptive results. For each task, the table shows the percentage of households that use outsourcing, and for households that outsource, it shows the number of hours a month or the annual frequency. Because almost all households use outsourcing alternatives for cooking at least once a month, only the monthly outsourcing frequency is shown. Slightly more than 30% of the couples hire domestic help for an average of 17 hrs a month or approximately 4 hrs a week. Almost half of the couples outsource at least one home maintenance chore a year. This is obviously an incidental type of outsourcing: On the average, households that hire someone for home maintenance at least once a year outsource roughly three chores a year. Outsourcing cooking is more common: On the average, couple households eat takeout food or go to a restaurant more than 5 times a month. Slightly more than one half the couples with children younger than age 13 years use formal child care. On the average, they have 67 hrs of formal care a month (nearly 17 hrs a week). This is a considerable amount,

Table 2
Outsourcing Percentages of Flexible and Inflexible Tasks by Job Features (N = 795)

	Flexible Tasks				Inflexible Tasks					
	Domestic Help		Outsourcing Home Maintenance		Formal Child Care ^a		Informal Child Care ^a			
	% Total	%	Hours a Month	%	Annual Frequency	Monthly Frequency	%	Hours a Month		
Total		31.01	16.72	46.64	3.32	5.37	53.79	66.71	66.93	25.33
Earners type										
Double earner	37.94	38.71	17.16	40.97	3.93	6.45	63.27	97.74	80.90	31.78
One-and-a-half earner	43.94	28.69	16.49	52.09	3.12	4.99	56.65	52.24	66.97	22.54
Single earner or both part-time	18.12	20.27	15.79	45.95	2.71	4.04	33.33	66.19	50.00	23.92
Overlap partners' work schedules										
No overlap	66.91	29.56	15.09	44.53	3.19	5.16	46.84	59.85	63.39	26.09
Overlap	33.09	33.95	19.46	50.92	3.55	5.80	67.14	75.91	73.85	24.04
Job flexibility										
Autonomy										
Limited autonomy: woman ^b	48.96	23.25	16.93	44.50	2.93	4.92	43.90	57.43	60.00	23.94
Ample autonomy: woman	51.04	38.37	16.59	48.92	3.66	5.80	64.00	74.05	74.47	26.49
Limited autonomy: man ^b	35.09	19.05	18.85	36.39	2.85	5.12	48.32	66.10	60.84	30.08
Ample autonomy: man	64.10	37.71	16.12	52.38	3.50	5.51	57.20	67.39	70.54	22.89

Rotating work schedule										
No rotating work schedule: woman ^b	66.22	28.84	16.33	43.62	3.00	5.14	53.35	69.70	64.29	26.01
Rotating work schedule: woman	33.78	34.78	17.39	52.54	3.68	5.83	57.03	61.90	72.65	22.00
No rotating work schedule: man ^b	43.83	24.51	15.76	42.34	3.09	4.99	54.78	73.97	68.00	21.83
Rotating work schedule: man	56.17	36.09	17.25	50.00	3.47	5.68	53.41	62.44	66.24	27.63
Working at home										
Woman not working at home ^b	92.54	29.59	16.45	45.44	3.22	5.35	54.86	66.50	66.10	26.13
Woman working at home	7.46	47.54	18.89	62.30	4.18	5.66	43.59	69.24	75.76	17.92
Man not working at home ^b	89.01	28.12	15.98	44.03	3.31	5.35	52.20	66.28	66.57	25.47
Man working at home	10.99	54.44	19.91	67.78	3.36	5.55	66.67	69.43	69.77	24.23

a. $n = 398$.

b. In the multivariate analyses, these variables are included as continuous, standardized scales; for working at home the number of days.

especially because it only pertains to formal child care. A larger percentage of parents use informal child care during working hours but for fewer hours, namely 25 hrs a month.

A comparison of the use of outsourcing by various earner types shows that the more hours they work, the more likely they are to outsource and to use outsourcing more often. This does not pertain to home maintenance: One-and-a-half earners outsource these chores more than anyone else. As regards the overlap of their work schedules, it is striking that couples with overlapping schedules more often outsource flexible and inflexible tasks alike. The difference between couples with and without overlap is especially large as regards formal child care; however, the difference is small as regards other tasks. Contrary to the expectation, flexibility seems to increase the use of outsourcing, even of flexible tasks. For the descriptive analyses, the respondents are categorized in two groups based on their scores on autonomy and rotating work schedules. Respondents who work at home 1 day or more a week are categorized as working at home. Employees with greater autonomy hire more domestic help and outsource their home maintenance and cooking more often. There is a similar pattern for rotating work schedules and working at home, although the differences are sometimes small. Multivariate analyses will reveal whether this unexpected pattern is caused by disturbing factors or is based on reality.

Method

Tobit models (Tobin, 1958) are estimated for the dependent outsourcing variables where a clear distinction can be drawn between the likelihood of outsourcing (likelihood that the dependent variable is higher than 0) and the degree of outsourcing (given outsourcing). Tobit models are appropriate for data with a lower boundary of zero, such as the dependent variables in the current study.¹ Nearly 70% of the respondents have no domestic help, and 53% did not outsource any home maintenance in the 12 months prior to the interview. Of the respondents with children younger than age 13 years, 46% have no formal child care and 33% do not use informal care during working hours. For the number of outsourcing alternatives for cooking, we estimate ordinary least squares (OLS) regression models because 97% of the respondents use outsourcing as an alternative for cooking at least once a month. The interpretation of Tobit coefficients is similar to the interpretation of ordinary regression coefficients.

Results

Outsourcing Flexible Tasks

Domestic help. The results in Table 3 partly support the availability hypothesis as to the influence of earner type on the presence and hours of domestic help. Double earners more often hire more hours of domestic help; however, one-and-a-half earners do not differ from single earners in this respect. Especially if both partners have a full-time job, domestic help is very much in demand or even a necessity.

For flexible tasks, when and how flexible partners are available is not expected to influence household outsourcing. The work schedule overlap does not have an effect on domestic help. A higher level of both partners' autonomy actually increases the use of domestic help. This is contrary to the expectation as to outsourcing inflexible tasks (cooking and caregiving): Flexibility is expected to decrease the use of outsourcing. One explanation for this finding could be that autonomy is a characteristic of busy and demanding jobs. Because employees with greater autonomy have to cope with more pressure at work, they want to reduce their obligations at home. Likewise, if men work at home, this increases the use and hours of domestic help. Men may prefer to be there to monitor the housekeeper. Women's working at home has no effect, perhaps due to the uncomfortable feeling they may experience if they are at home while someone else is doing the cleaning (Hondagneu-Sotelo, 2001). This apparently does not seem to be an issue for men.

Home maintenance. Contrary to the expectation, the earner type does not explain the number of outsourced home maintenance chores (Table 3). This finding might be indicative of the gender typing of tasks: Home maintenance is a traditionally male task that apparently does not depend on the number of hours of labor-force participation. Men traditionally bear responsibility for home maintenance, a flexible, discretionary, even recreational task, and participate on the labor market as well (Hochschild, 1989). In addition, the demand for home maintenance is easily reduced by postponing chores or by choosing to live in a new house or apartment that does not require much maintenance.

The number of days men work at home increases the outsourcing of home maintenance in a way that is similar to the effect on the use of domestic help. The type of outsourcing can explain this finding. Because home maintenance is an incidental task and is thus not outsourced on a regular basis, it is

Table 3
Coefficients of Tobit Model Explaining Number of Hours of Domestic Help, Outsourced Home Maintenance Chores, and Outsourced Child Care, and Coefficients of Ordinary Least Squares Regression Model Explaining the Number of Outsourcing Alternatives for Cooking

	Flexible Tasks		Inflexible Tasks		
	Hours of Domestic Help	Outsourcing Chores	Outsourcing Cooking	Hours of Formal Child Care	Hours of Informal Child Care
Earner type ^a					
Double earner	11.78**	-1.26	.76	51.21***	18.11**
One-and-a-half earner	1.46	-.68	.51	30.12**	9.75
Overlap partners' work schedules	-.46	.12	.25	13.98*	-1.81
Job flexibility					
Autonomy woman	2.33*	.29	.00	8.56**	1.85
Autonomy man	2.40*	.36	.09	4.80	-.89
Rotating work schedule: woman	.88	.33*	.21*	-.89	-.10
Rotating work schedule: man	1.26	.12	.12	-4.93*	.74
# Days working at home: woman	1.01	.51	-.17	-10.44*	-3.36
# Days working at home: man	4.07**	.56*	.44*	10.19*	7.66*
Control variables					
Number of children < 4	5.66**	-.03	-.40	70.52***	2.00
Number of children 4 – 13	3.79**	-.27	-.50**	12.43**	2.40
Privately owned home	7.81*	4.44***	-.11	22.38*	-9.72
Number of rooms	2.26*	.48**	-.31**	-2.73	-2.71
Highest educational level	5.29***	.65***	.04	6.28**	1.42
Age	4.04**	.28	-.22	7.68*	-5.85*
Age squared	-.04*	.00	.00	-.08	.05
Monthly income	.00	.00	.00	.00	.00
Constant	-200.77***	-20.45***	12.57***	-331.77***	156.80**
χ^2	197.25***	145.90***		230.73***	66.32***
R ²			14%		
N	789	795	794	395	373

a. Reference group single earners and both partners part-time.

* $p < .05$. ** $p < .01$. *** $p < .001$ (one-sided test).

important for one partner to stay home and let the home maintenance worker in, or even stay home throughout the entire chore. Apparently, it matters which partner works at home: Only men's working at home increases the outsourcing of home maintenance. However, a rotating work schedule of the female partner also facilitates the use of outsourcing for home maintenance. If employees cannot be at home, this may reduce their demand for home maintenance, or they may be forced to do more of it themselves.

Outsourcing Inflexible Tasks

Cooking. Contrary to the expectation, double and one-and-a-half earners do not pay to replace cooking any more often than single earners. In outsourcing cooking, apparently it does not matter how many hours the partners are available. A logical explanation is that going to a restaurant is not exactly time-saving. Double and one-and-a-half earners may purchase time-saving alternatives such as takeout meals more often but do not eat out any more often.

According to the availability hypothesis, a working schedule overlap increases the outsourcing of inflexible tasks such as cooking. The regression analysis does not reveal any such effect of overlap. A negative effect is expected for autonomy and working at home because the partners are more flexibly available. However, no effect of autonomy has been observed and there is even a positive effect of men's working at home. An explanation for this could be that autonomy and working at home are characteristics of busy and demanding jobs and thus do not decrease the demand for outsourcing. One availability hypothesis assumption is that people perform tasks themselves if they are available. This may not be true of men, who outsource cooking more often when they work at home. If female employees have a more rotating work schedule, cooking is outsourced more often. Rotating work schedules do not allow (female) employees to deal flexibly with the demands from home, and as a consequence they more often outsource the cooking.

Formal child care. The earner type is obviously important in explaining the number of hours child care is outsourced for. The amount of available time is an important determinant of the formal outsourcing of child care. Double and one-and-a-half earners arrange child care for their children younger than age 13 years more often, and for more hours than single earners.

As expected, a work schedule overlap increases the hours of formal child care. Households where at least one partner is available at home for a considerable amount of time arrange less formal child care. A negative effect is expected of the various types of job flexibility except rotating work

schedules. Only the number of days women work at home decreases the use of formal care as expected, and autonomy has no effect. The more frequently women work at home, the less frequently formal child care is used. The woman is available at home and uses the opportunity to mind the children while she works; however, a man working at home interestingly seems to increase the use of formal child care. Autonomy of women's work has a positive effect, probably because it facilitates transportation to and from day care. There is no straightforward expectation as regards rotating work schedules. The results show that rotating work schedules of the male partner actually decrease the use of child care. Although rotating schedules do not enable men to deal flexibly with the demands from home, they do decrease the use of formal child care—probably because men take over the care of children when they work rotating shifts.

Informal child care. The amount of available time also appears to be important for informal child care: double and one-and-a-half earners more often use informal child care during working hours than single earners. When the time is available and how flexible the time is that is available do not seem to affect informal child care. For instance, informal child care is just as attractive to households with or without overlapping working hours. A negative effect is expected for autonomy and working at home; however, only a contradicting effect has been found for men working at home. The more days men work at home, the more often they use informal child care. Similar to the case with formal child care, the assumption that their being available leads men to take care of their children themselves does not seem valid.

The Flexibility Effect: Disturbing Factors?

The results show that flexible availability does not necessarily decrease the use of household outsourcing for flexible and inflexible tasks. Whether households outsource, even if the partners are available, may also depend on the pleasure people associate with certain tasks. A study by Berkel (1997) shows that the pleasure people associate with certain tasks affects the division of household labor between the partners. The same reasoning might apply to household outsourcing. If people do not enjoy certain tasks, they outsource them more often even if they are flexibly available, because availability also facilitates outsourcing. The analyses in this article have also been performed including a measure for pleasure. As regards the use of formal child care and domestic help, the pleasure women get from certain tasks has a negative effect on their use of outsourcing, and for the

outsourcing of cooking the pleasure of both partners has a negative effect. The pleasure associated with certain tasks does not however explain the positive effects of flexibility found in the current study: The effects remain.

Another explanation for the positive effects of flexibility is that flexibility is associated with certain types of jobs. The analyses have also been done controlling for Goldthorpe's class categories (using the conversion tool designed by Ganzeboom & Treiman, 1993), yielding similar results. In addition, controlling for the International Socio-economic Index of Occupational Status (ISEI; again using the conversion tool designed by Ganzeboom & Treiman, 1993) does not alter the results either. The occupational prestige of men's jobs increases the use of domestic help and decreases the use of informal child care alternatives; however, the effects of the indicators of flexibility remain. Apparently, flexibility facilitates the use of outsourcing alternatives and cannot be explained on the basis of the type of job.

Discussion

With a growing number of dual earners, responsibility for domestic chores and caregiving increasingly rests on the shoulders of working men and women alike. As a result of this trend, more attention has been devoted to the consequences of various aspects of paid work for the internal organization of household tasks, especially as regards the amount of time spent on domestic chores and caregiving. The effects of job features on outsourcing domestic chores and child care have hardly been researched.

The availability hypothesis was central in this article: The more their jobs enable partners to be available for more time and to be flexible to perform domestic chores and caregiving, the less households use outsourcing alternatives. The current study provides mixed support for our hypotheses. The earner type hypothesis (Hypothesis 1) is supported for female tasks (cleaning and child care) as regards the difference between single and double earners. We find limited support for the overlap hypothesis (Hypothesis 2); overlapping schedules only increase the hours of formal child care. The results are inconsistent concerning our flexibility hypotheses that more flexibility would decrease the outsourcing of inflexible tasks (Hypothesis 3, Hypothesis 4). It is surprising to note that more flexibility increases the outsourcing of child care (women's autonomy, number of days working at home) and cooking (women's rotating work schedule, men's number of days working at home). Only few flexibility indicators have the expected effect on the outsourcing of child care, namely women's rotating work schedule and men's number of days

working at home. In addition, flexibility influences the outsourcing of flexible tasks as well, even though we did not expect an effect. Although different types of flexibility are important for various tasks, flexibility in general seems to facilitate outsourcing. Employees with more flexible jobs outsource more often rather than taking responsibility for the tasks themselves. The assumption that being available makes people perform these tasks themselves does not appear to be realistic. Autonomy over working hours and working at home makes it easier to combine paid and domestic work in a different way than anticipated: They reinforce the modern outsourcing pattern.

The results reveal gender differences: The influence of job features on outsourcing differs for men and women. It is interesting to note that women take advantage of the opportunity to combine work and child care when they work at home; however, when men work at home it merely increases the outsourcing. Working at home enables them to monitor the housekeeper and home maintenance supplier as they work and facilitates the use of outsourcing alternatives for care giving and cooking. Men use this opportunity to outsource, and women do not, probably because they feel uncomfortable being at home with someone else doing the work, and uncomfortable outsourcing when they have more flexibility to do the work themselves. Men apparently do experience this uncomfortable feeling.

Conclusion

The results of the current study illustrate the important role of job features as regards outsourcing domestic chores and caregiving. In other words, it is worthwhile to use insights from labor sociology in explanations of household behavior. This type of approach enhances our understanding of how paid and domestic work interact in issues of time competition. The current study moves beyond previous research because in addition to the amount of available time, it takes into account when and how flexible time is available. In addition, gender should be taken into account when studying work-family issues because men and women respond differently to their job situation.

The current study shows that for various domestic and caregiving tasks, different job features are important. For instance, women's autonomy increases the use of domestic help and formal child care but does not affect the outsourcing of other flexible and inflexible tasks. Thus the distinction between flexible and inflexible tasks appears ambiguous. More information on the specific characteristics of the outsourcing of various tasks is needed to better understand the relation between job features and outsourcing.

Further research into the influence of overlapping work schedules on the outsourcing of domestic and caregiving tasks would be useful. In the current study, a first step has been taken toward testing the influence of work schedule overlap on outsourcing; however, the measure of overlap does not contain detailed information. The data constitute information on when partners usually work: regular hours, in the evening, at night, or on the weekend. The limited information about overlapping schedules might explain why we find that rotating work schedules increase the use of outsourcing, which could be an overlap effect. To test the availability hypothesis, it would be useful to measure the actual family work day using information about precisely when at least one partner is available at home.

In the current study, attention is devoted to couples' outsourcing of domestic tasks and child care. Outsourcing is also an important strategy for working singles, who do not have a partner to rely on for gender-specific tasks (De Ruijter, Treas, & Cohen, 2005). Job features are probably also important for singles' task outsourcing because they bear the responsibility for domestic chores and child care alone. Further research on the influence of job features on outsourcing by singles would be useful.

Our results suggest that employers can help employees to balance work and home by offering flexible working hours and by allowing them to work at home. At first glance, one would expect job flexibility to reduce work-family conflict by enabling employees to do inflexible household chores and caregiving themselves. The current study shows that job flexibility facilitates the combination of work and home in another way, namely by facilitating the use of household outsourcing. Flexibility does not directly increase the amount of employees' available time; however, it can save time indirectly through the use of the time-saving strategy outsourcing. However, there is one important obstacle that may obstruct employees from choosing more flexibility. Previous research has shown that the use of flexible work options has negative career consequences, such as lower chances of promotion (Bailyn, 1993; Perin, 1991). It is important that employees and employers embrace job flexibility as an acceptable strategy to combine work and home.

Notes

1. Tobit coefficients are estimated using a maximum likelihood procedure that corrects for a limited dependent variable that may lead to inconsistent and biased ordinary least squares (OLS) coefficients (Tobin, 1958). OLS and Tobit models are estimated for all four dependent variables, and the results for domestic help, child care, and home maintenance differ, which is why we report the Tobit models for these variables. The decomposition of the coefficients into

the likelihood of outsourcing and the degree of outsourcing is not necessary if the main aim is to explain rather than predict outsourcing (MacDonald & Moffitt, 1980).

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