Domestic outsourcing and multitasking: how much do they really contribute?

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Abstract

The bulk of responsibility for domestic work and childcare in heterosexual couples falls on women. But the means they find to cope with this load, and how these means relate to the factors underpinning the division of labor are not often studied. Two much-cited ways of reducing work time are by purchasing domestic assistance (outsourcing) and the multitasking of domestic/caring tasks. Using U.K. 2000/1 time-use data (N=4196 couples), we find domestic outsourcing is related to having dependent children and partners’ resources, but has little overall impact on the total domestic/caring workload of either partner. Nor can outsourcing account for the reduction in women’s unpaid labor with increasing economic resources. Wives spend more time multitasking than husbands, but partners’ proportion of multitasked domestic time is quite similar, and is not affected by standard socioeconomic variables. Domestic multitasking seems to be more related to opportunity (time at home) than to time pressure.

Key words: Housework/division of labor; time use; gender; dual earner
Domestic outsourcing and multitasking; how much do they really contribute?

It is well-established that wives do more domestic work and child care than husbands. Theoretical explanations for this lack of equality in the domestic sphere are various and complex - ranging through approaches based on gender, time availability, economic exchange and marital bargaining in relation to partner’s resources - and debate over these explanations fills many pages of research (for decade reviews see Bianchi & Milkie 2010; Coltrane, 2000; Coltrane 2010; Lachance-Grzela & Bouchard, 2010). In contrast, the practical means that wives might adopt for coping with this (over)load, and the way in which these may be related to the same factors which underpin the division of domestic labor in heterosexual couples have been much less studied. Two potential means of coping with an overload of domestic work are through the multitasking of domestic tasks and the purchase of domestic assistance (domestic outsourcing). In a discussion of the pressure of time experienced by parents, Sayer (2007) identified both as potential strategies by which an individual can reduce their overall work time (the others being: reduction in paid work time; having fewer children and simply leaving domestic tasks undone).

Domestic multitasking in the context of this paper refers to the doing of domestic or child care tasks simultaneously, or in combination with other activities; while domestic outsourcing refers to paying someone else to perform domestic services – most usually the purchase of cleaning or child care assistance. While the relationship between the purchase of such assistance and the intention to save time may be more obvious, it is also true that, given a finite amount of time and a particular quantity of domestic/caring work to perform, the doubling up of domestic tasks in multitasking can also be conceived of as an effort to save time. Strangely, there has been less research focused specifically on these issues than might be expected given the frequency with which they referred to in support of some key arguments in research on the domestic division of labor. For instance in research on the
impact of women’s resources on their time in domestic tasks it is quite frequently suggested that the purchase of help with housework may help to account for the overall negative relationship observed between wives’ resources and their housework time (e.g., Bittman, England, Folbre, Sayer & Matheson, 2003; Brines, 1994; Greenstein, 2000; Gupta 2007; Gupta & Ash 2008).

In addition, while there is a significant amount of policy-orientated research that addresses the purchase of institutional child care assistance outside the home (e.g. de Ruijter, 2004; de Ruijter & van der Lippe, 2007), less attention has been given to the extent of the purchase of domestic child care help within the home. For certain groups under particular pressure of time this, as we show, turns out to be a significant phenomenon. Recent research, reviewed below, on both multitasking and domestic outsourcing has tended to be based on relatively small and selective samples, or on large-scale household surveys. This has meant on the one hand that results have tended not to be easily generalizable, and on the other that the measure of time spent in domestic work is based on stylized survey questions on the use of time, which are not considered to be as reliable as estimates based directly on time use diary data.

In this paper we use large scale nationally representative time use diary data from the U.K in order to shed more light on domestic multitasking and outsourcing as potential strategies for reducing overall work time in response to pressure of time. The U.K. 2000/1 time use survey was the U.K. contribution to the Harmonised European Time Use Study (HETUS), designed by the Statistical Office of the European Union. It combined continuous sequential diary information on primary and secondary activities (enabling the identification of multitasking) reported independently by both partners of couples, together with detailed information on the paid and unpaid outsourcing of domestic and care tasks.
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which is not available, for example, in the U.S. Bureau of Labor Statistics’ American Time Use Study.

Using this data, we investigate the proposition that time pressure related to coping with the burden of domestic labor in the context of balancing work-family responsibilities (i.e. where many competing demands involving family, domestic work or employment are being made simultaneously) is associated with both multitasking and domestic outsourcing. To do so, we explicitly test the association between time spent in housework/child care by spouses and 1) the buying in of domestic help and 2) the multitasking of domestic tasks.

While, following Sayer (2007), we use the terminology of *strategies* to describe these relationships, we do not imply from this that these is necessarily any consciously rational strategic decision involved. The term strategy may refer to a conscious decision to structure actions in a particular way in order to achieve a desired result (*ex ante strategizing*), but it has also been widely used in the literature to describe the outcome of a set of interlinked practices (*ex post outcomes*), as, for example, in the term *household work strategies* (Anderson et al, 1994; Pahl, 1984; Wallace, 2002).

From the existing literature, reviewed below, we infer that the household context in which decisions concerning domestic outsourcing and multitasking are made depend in particular on: partners’ joint and individual employment statuses; their joint and individual resources; and the age and numbers of their children. These factors are also those known to be among the most significant in the determination of the division of domestic labor among couples. For example, because of the particular salience of work-family conflict for them, full time employed married mothers with high absolute and/or relative resources are often claimed to be the most likely to multitask and/or to employ domestic help in an effort to reduce the pressure of time.
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Review – domestic outsourcing

Women usually have both management and financial responsibility for employing domestic and child care assistance. Gupta and Ash (2008) noted that the simplest potential explanation for the observed decline in women’s performance of housework with an increase in their earnings is that women use these earnings to purchase substitutes for their own domestic work. In support of this, studies using U.S. data have shown that married women’s earnings, rather than their husbands’, are associated with household spending on housework outsourcing (see, for example, Cohen, 1998; Oropesa, 1993; Treas and de Ruijter 2008).

The sociological literature addressing domestic outsourcing directly has taken two broad approaches, as noted by Bittman, Matheson & Meagher (1999). The first addresses the exploitation of domestic workers resulting from the employment by those with higher resources of those with low resources in a largely unregulated workplace. The second perspective, of greater relevance to the current discussion, focuses not on the relations of production, but on the consumption side of domestic employment. Its main theoretical concern is with changes over time in the household outsourcing of goods and services which might alternatively be sourced from within the household (see Author, 2000; Bittman et al 1999; de Ruijter, Treas & Cohen 2005). Included in the wider economic definition of outsourcing are eating out in restaurants, use of child care services, commercial laundry services and the purchase of partly-prepared foods in supermarkets, as well as the purchase of help for domestic tasks performed within the home – such as child care, cleaning, gardening and other tasks. The outsourcing of domestic tasks –widely defined - is dominated by food preparation (buying in of prepared foods and eating out). But, in terms of the proportion of households who outsource, child care is the next most important area, so households with children, and especially dual earner households with young children, are among the most likely to outsource (Bittman et al., 1999; Sevilla-Sanz et al, 2010).
The outsourcing hypothesis claims that over the past decades the growth of education and employment opportunities for women has decreased the amount of time available for doing traditionally feminine-defined tasks at home, so for women whose wage rate in the primary labor market is higher than the wage rate of a domestic employee, outsourcing (substituting her own labor time) makes economic sense. This substitution effect has often been pointed to as a possible factor in the observed decrease in women’s housework time as their resources increase (e.g. Bittman et al, 2003; Gupta, 2007; Gupta & Ash, 2008). If husbands fail to increase their domestic work to compensate for wives in employment, perhaps third parties fill the domestic work gap for pay (Killewald & Gough, 2010; Killewald, 2011)?

Studies from this perspective tend to be quantitatively based, and the main sources have been household expenditure surveys which identify purchases of domestic services, and general household/family surveys including information on whether households employ paid help with domestic tasks. One of the main findings is that, overall, relatively few households outsource domestic tasks and that there does not seem to be an increase over time. Bittman et al (1999) found that only 4% of Australian households paid for cleaning services in 1994; Stancanelli and Stratton (2010) found predicted probabilities for employing assistance with routine domestic chores of 3% for Britain in 2001 and 2% for France in 1998-9. de Ruijter (2004) identified an increase from 6% to 12% in the employment of domestic help in the Netherlands in the 1980s and 1990s, but when controlling for compositional changes in individual characteristics the trend became negative in direction. The low percentage of couples found to be purchasing domestic help (as opposed to child care help) is perhaps surprising, and does not seem to accord with the speculation in the literature in respect of its potential effect on women’s domestic work time.
In relation to economic resource perspectives, the outsourcing of domestic work has been found to be positively related both to partners’ income, and, in particular, to wife’s income (Cohen, 1998; Oropesa, 1993; Stancanelli & Stratton, 2010; Treas & de Ruijter, 2008). Stancanelli and Stratton (2010) found that women’s own wages have a stronger relationship to the purchase of routine domestic work services than either partner’s wage or the price of paid help. But, as we shall explore further, time availability does not appear to be strongly or consistently related to housework outsourcing (see also Killewald, 2011).

The bulk of the domestic outsourcing literature arising from this perspective has taken a relatively narrow definition of domestic outsourcing – focusing mainly on the substitution of housework tasks rather than the purchase of paid child care assistance in the home. While de Ruijter (2004) and de Ruijter & van der Lippe, (2007) provided some analyses of formal child care outsourcing in institutional contexts outside the home, the parameters of the debate have largely been set by interest in the substitution effect between housework time and the purchase of assistance with domestic chores. In contrast, we found paid child care assistance to be the most important type of domestic outsourcing, particularly for the most time pressured of couples – dual earners with children aged under five.

Review – multitasking

It well established that women are more likely to report doing two or more activities simultaneously than men, particularly where the combined activities include domestic work or child care (e.g., Author, 1997; Bittman & Wajcman, 2000). This fact, in combination with the finding that women’s leisure periods tend to be more fragmented than men’s (Author, 1997; Bittman & Wajcman, 2000; Mattingly & Bianchi, 2003), is generally taken to reflect greater pressure on women’s time as a consequence of work-family conflict. Qualitative studies confirm the existence of ‘hot-spots’ of time pressure during the day for women, which contribute to increased feelings of harriedness (Southerton, 2005). Indeed, Offer and
Schneider (2011) have suggested that gender differences in multitasking may account for findings that mothers experience higher rates of stress even when experiencing similar workloads to those of fathers.

Observed differences in multitasking by gender (e.g. Bianchi, Robinson & Milkie, 2006; Bianchi & Wight, 2010) led to multitasking being used to re-estimate women’s second shift (Hochschild, 1989), adding secondary (unpaid) work activities to main work activities. Time use diary data is generally regarded as the gold standard for these purposes. Using time use data from the U.S., Sayer (2007) compared unpaid work tasks done in combination with another activity for parents at two periods (1975 and 1998-2000), concluding that accounting for multitasking demonstrates an increase in gender differences in workloads over time as the increase in secondary activities is greater for mothers than for fathers. Craig (2007) added all secondary paid and unpaid domestic work activities to primary work totals, finding that this significantly increased women’s total time spent working, particularly for mothers. She concluded that only by including secondary activities was the extent of women’s second shift really revealed.

There are, though, some problems with estimating workloads by simply adding secondary to main work activities using time use diary data. This procedure often leads to the double-counting of time spent doing two simultaneous work activities (thereby raising the total number of minutes per day to more than 1440). In addition, most secondary activities involve child care and domestic work tasks, which are usually identified separately and in considerable detail in time use diaries, whereas employment-related activities are almost always single-coded as paid work only (reflecting the difficulty of describing highly specialized employment-related tasks). This point was made by Sayer (2007), who noted that her finding that non-employed women are more likely to multitask than employed women contradicted the expectations of the time availability hypothesis. It suggested, rather,
that multitasking time may reflect time at home, and hence the opportunity to record multitasking, rather than attempts to maximize the use of time.

In a refinement of previous analyses, adding secondary domestic and child care tasks in combinations only with personal care and leisure activities to unpaid work totals (thereby avoiding the double-counting of domestic and child care tasks), Sayer et al., (2009) found that overall total work hours do not differ by gender whether or not secondary activities are included in the calculations. A really important difference, however, was found for one particular family type – the overall work-time of mothers of preschool children was significantly greater than that of fathers, and especially so when secondary activities were included in the total.

Offer and Schneider (2011) recently introduced an approach to the analysis of multitasking based on the Experience Sampling Method (ESM), which overcomes the coding issue in time use diary data because primary and secondary activities are sampled not only at home, but also at places of employment. Inter alia, they found that mothers spent 10 more hours a week multitasking compared to fathers and that these additional hours were mainly related to time spent on housework and childcare. For both partners multitasking at work was perceived as negative, and multitasking at home was perceived as stressful and negative by mothers. However, while they were able to collect information on the experience of multitasking – something not possible using time use diary data - the data they use, from the 500 Family Study, was based on an opportunity sample, and comprised of well-to-do middle class, dual-earner parents. Because the time use data we use in this paper is both nationally representative and based on a continuous record (rather than on sampled time points throughout the day) we are able to compare some of their findings (on the time spent multitasking) for this particularly time-pressured group to those from a wider, representative, British sample using continuous time diary data.
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Research Questions

From the literature reviews above we conclude that the main factors likely to be associated with both domestic outsourcing and the multitasking of domestic/caring tasks are gender, family structure (age and presence of children), employment status (reflecting time availability), and couples’ joint and individual economic resources. Arising from the literature on couples’ economic resources in relation to women’s time in domestic work/child care we expect: 1) that time spent in domestic work and care is negatively related to domestic outsourcing. Any effect of domestic outsourcing on wives’ time is likely to be stronger than that on husbands’ time; 2) that those with higher economic resources are more likely to outsource as a solution to time pressure than are those with fewer resources. The relationship between economic resources and domestic outsourcing will be stronger for wives’ resources than for husbands’; 3) domestic outsourcing can account for the lower domestic and caring work times found among wives with high relative or absolute economic resources.

Drawing on the literature for the relationship between gender, multitasking and time availability we expect to find that: 4) wives spend more time on domestic multitasking than husbands, and; 5) opportunity (in the sense of time spent at home) is strongly related to domestic multitasking. Finally, following from our conception of domestic outsourcing and multitasking as strategies designed to cope with time pressure, we expect: 6) that those under the greatest pressure of time (i.e., mothers of small children in full time employment) are most likely both to multitask and to outsource domestic/child care tasks.

Method

Data

To address these questions there are some specific data requirements. The 2000/1 U.K. time use study, conducted by the U.K. Office of National Statistics as the U.K. contribution to the
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1998-2004 HETUS round, included sequential time use diary data with secondary activities (enabling the identification of multitasking) together with detailed information on paid assistance with domestic tasks and child care activities from all household members over age eight. The sample was nationally representative, covering the whole year of the population of individuals in private households in the U.K. All individuals aged eight or over in the sampled household were asked to complete an individual questionnaire and two one-day diaries (on the same days as other members of the household). There is no equivalent large scale nationally representative U.S. data set which combines detailed continuous information on time use (including secondary activities) from both partners together with the buying-in of domestic/caring assistance. The household and individual questionnaires were used to gather background and demographic information. An equal distribution of week and weekend days was required for the diaries. Primary and secondary activities were entered by respondents in their own words, which were later coded to an agreed HETUS coding frame provided by Eurostat (Eurostat, 2004). Achieved sample size was 6414 households, yielding 11667 individual respondents. The diary response rate was 73% from responding households.

From the harmonized version of this data available from the Multinational Time Use Study (MTUS) we extracted a file containing heterosexual couples with only one hour or less of missing diary data (N of couples =4196). Because (the same) two diary days were recorded for each adult respondent in a couple, the result is a data structure consisting of 4 diary days per couple.

Variables

For the analysis of domestic employment we constructed a series of dependent variables indicating: 1) those who received some paid assistance in the home for a) all domestic and caring tasks together and b) child care and cleaning separately (binary variables; \( I=purchased \text{ paid assistance, } 0=did \text{ not purchase paid assistance} \)), and, for those who did
purchase some assistance, 2) how many minutes of domestic/caring time was purchased (continuous variable). Although paid assistance for child care and caring for other dependents was included in the definition of caring for the construction of the overall domestic/caring assistance variable, paid assistance with child care overwhelmingly dominates this category, accounting for 99% of all purchased care.

For investigating the relationship between the employment of domestic/caring assistance and time spent by spouses in these tasks we constructed a variable measuring the total of all domestic work and caring done by wives and husbands (continuous variable measured in minutes). For the multitasking investigation we used as our dependent variables 1) the amount of time spent in domestic multitasking including any combination of primary and/or secondary activities involving any domestic work, child care or other care (continuous variable measured in minutes); and 2) the proportion of overall domestic work/ care time spent multitasking.

One of our central independent variables is a continuous measure of economic resources based on the wage rates of wives and husbands. For those in employment this was calculated straightforwardly as the hourly wage of their current job, and for those not currently in employment an expected hourly wage was substituted. This was calculated using the standard Heckman estimation regression approach from a model for the whole population containing: dummies for educational level and occupation (for those in employment); age and age squared; and interactions between educational level, age and employment status. A dummy variable for sex was included in the selection equation only. The rationale for using this measure (instead of the more usual current earned income) was to enable us to include those who did not have a current earned income. Non-earners are generally excluded from analyses focusing on spousal resources, or allocated a value of zero. Non-earners are predominantly women - who may be either unemployed or taking various kinds of leave or
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employment breaks following childbearing or to care for children or elderly dependents, but also include men who are unemployed. The contributions of the non-employed to household time spent in domestic/caring work is crucial in any assessment of the propensity to purchase domestic/caring assistance. As we show, there is a strong and gender-equal relationship between a spouse being non-employed and the likelihood of purchasing domestic/caring assistance. In addition, it should not automatically be assumed that the economic resources of the non-employed are equal to zero; a previously highly-paid career woman on an employment break is more likely to be able to contribute to the purchase of domestic assistance than a woman with a lower level of educational attainment who has been chronically unemployed all her life.

As additional controls in our multivariate analyses we include the employment status of both spouses, family structure, age and age squared. The family structure variable comprised four categories, designed to incorporate the main sources of demographic variance in both couple type and presence of children found in the literature (age and presence of dependent children aged under and over age 5). This allows us to capture the main sources of variance attributable to these factors, without increasing the number of independent variables in the analyses through having to add each one (and their interaction terms) as separate variables.

Findings: domestic outsourcing

*Relationship to family structure and employment: descriptive statistics*

Firstly, in agreement with previous research we found that the overall percentage of couples who purchased any domestic or caring assistance was quite small (13%). Breaking this down into the categories of domestic and caring assistance, 6% of couples purchased domestic child care assistance and 5% purchased cleaning assistance. Only 1% or less of couples purchased domestic assistance for any other task (such as gardening, window cleaning, adult care, pet
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care etc.) Table 1 shows the percentage of couples purchasing any domestic/caring assistance; the percentage purchasing cleaning assistance and the percentage purchasing child care assistance by joint spousal employment and family structure. From the first panel of Table 1 (showing the percentage of couples purchasing all types of domestic/caring assistance), it is clear that the majority of domestic/caring assistance was purchased by dual-earner couples with children in the household, in particular those with under-fives (at 50% of couples where both were in full time employment).

The second and third panels of Table 1 confirm this. The purchase of cleaning assistance (Panel 2) did not exceed 8% in any category, and was relatively evenly spread between the categories of spousal employment status and family structure, with slightly higher rates found among couples over aged 40 with no dependent children. In contrast, the distribution of those purchasing child care was highly concentrated among dual earner couples with children aged under five in the household. 44% of full time earner couples, and 33% of those where the husband was in full time employment and the wife was part time purchased help with child care. The next highest percentage after this (10%) were again couples with children aged under five in the household – in this case where the wife was not in paid employment. In sum, only a relatively small overall proportion of couples purchased any domestic/caring assistance, and the distribution of couples who did is highly concentrated – being dominated by the purchase of child care help among dual earner couples with young children.

Relationship to couples’ joint and individual resources: descriptive statistics

Table 2 shows the percentage of dual earner couples with children who purchased domestic/caring assistance according to the joint economic resources of husbands and wives. Here and in Table 3 we combined domestic and caring assistance together for reasons of sample size. Quintiles of the distribution of husband’s resources are shown down the rows of
the table, with wife’s resource quintiles shown across the columns. Looking first at the row and column totals (showing the purchase of domestic/caring assistance according to husband’s and wife’s quintiles respectively), we note a general increase in the purchase of domestic/caring assistance by resource quintile for both wife and husband. The highest percentages of couples purchasing domestic/caring assistance occurred where either the wife’s or the husband’s resources were in the highest quintile (44% of couples where the wife was in the highest quintile for women and 34% of couples where the husband was in the highest quintile for men).

We can explore these effects further by looking at the body of the table, which shows the combinations of wife’s and husband’s resources. Firstly, it is clear that the highest percentages of paid domestic/caring assistance occur on the right side of the table, from the third to fifth quintile of wife’s resources. Indeed, where both husband and wife were in the highest quintile, over half of all couples (53%) purchased domestic/caring assistance². Conversely, the lowest percentages of domestic/caring assistance are found in the upper left part of the table where both husband and wife were in the lower levels of their respective quintile distribution of resources. But there is also a clear gender asymmetry contradicting the simpler predictions of household economic theory. Given that high earning men earn more on average than high earning women, we would expect that when husbands’ economic resources are high, the percentage of households employing domestic assistance should be higher than in the reverse case where wives’ resources are high. In fact, the percentage of couples purchasing domestic/caring assistance where the wife was in the highest quintile and the husband in the lower three quintiles was clearly greater than that in the reverse situation (where the husband was in the highest quintile and the wife in the lower three quintiles of the distribution for women). We should note, though, that sample numbers at the end of the
distribution where wife’s resources are high and husband’s low tend to be rather small (a point made also in Bittman et al., 2003 and Gupta, 2007).

**Domestic outsourcing: combined multivariate analysis**

Simple cross-tabulations of the employment of domestic/child care assistance by husbands’ and wives’ economic resources may be misleading. Multivariate analysis is needed to assess the effects of this and other variables (employment status and family structure) concurrently. As not all couples purchase domestic assistance it is appropriate to divide this analysis into two stages. A logistic regression model (Table 3, Model 1) shows the likelihood of employing domestic/caring assistance (suitable for a dependent binomial variable where couples purchasing any domestic/caring assistance = 1, those who do not = 0). An OLS regression (shown in Table 3, Model 2)\(^3\) assesses the factors affecting the number of hours of domestic/caring assistance for those couples who purchased some domestic/caring assistance. For both models the independent variables were: wife’s and husband’s economic resources (including their squared terms), family structure (entered as dummy variables), husband’s and wife’s employment status (entered as dummy variables), wife’s age and wife’s age squared.\(^4\)

Affecting the odds of purchasing domestic/caring assistance (Table 3, Model 1) we found the resources and employment status of both wife and husband, the presence of dependent children, and age, all to be significant. The presence of children was most strongly associated with the purchase of domestic/caring assistance: for couples aged under 40, having children aged under 5 in the house increased the odds of such purchase ten-fold compared to similar couples without children. Higher economic resources were also associated with higher odds of purchasing domestic/caring assistance for both wife and husband (while holding constant the effect of children and age), suggesting a strong and persistent relationship with the resources necessary to employ a third party to do the domestic/care work. The positive odds of purchasing domestic/caring assistance associated with a decile
increase in wives’ resources (at over 1.5, \( p < .001 \)) were slightly higher and more statistically significant than those for husbands’ (at 1.3, \( p < .01 \)). In relation to employment status, where either the wife or the husband was not employed, the odds of purchasing domestic assistance were significantly reduced, indicating a strong relationship with time availability – interestingly for both wife and husband symmetrically. Increasing age also increased the odds of purchasing domestic/caring assistance net of other variables. Of particular note is the difference between the clearly asymmetrical effects of husbands and wives’ economic resources shown in the simple crosstabulation (Table 2), and the more symmetric gender balance of these effects in Table 3, reflecting the introduction into the analysis of the employment status and family structure variables.

Turning to Table 3, Model 2, where the dependent variable is the number of hours per week that domestic/caring assistance was employed (for those couples who purchased some domestic assistance), only wife’s employment status and the presence of children aged under 5 in the household had any statistically significant effect, together accounting for an explained variance of 29%. Where the wife was employed part time or not employed, hours of paid domestic/caring assistance were significantly lower than in households where the wife was employed full time, indicating a strong substitution effect between the wife’s domestic/care work and that of domestic employees. It appears from the two models shown in Table 3 that spousal resources strongly affect the decision to purchase domestic/caring assistance, but among those who do purchase such assistance the number of hours is related only to wife’s time availability and the need for early child care.

**Relationship to domestic work/care time**

Finally, we analyzed whether the purchase of domestic/care assistance actually aids in predicting the amount of time that husbands and wives spend in all domestic and caring work. For these models (not shown), a dummy variable representing the purchase of
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domestic/caring assistance was added to the same combination of independent variables used in Table 3. There was found to be no reduction in domestic work and care time associated with this variable either for wives or for husbands. Although the overall probability of purchasing domestic assistance had a negative effect on wives’ domestic/caring work time, the relationship did not reach the conventional boundary of statistical significance ($p < .10 > .05$). In fact, selecting only couples in full time employment with dependent children in the household revealed a statistically significant positive relationship ($p < .01$) between wives’ time spent in domestic and care work and hours of domestic/care assistance purchased (there was no effect on husband’s time). It appears that, net of other factors, the more domestic/caring work that mothers in full time employed dual earner couples did, the more likely they were to employ domestic/care assistance. Table 1 showed that for this particularly pressurized subgroup, the purchase of child care assistance was by far the most common type of domestic outsourcing, far outrunning the employment of help with domestic tasks. In order to further investigate the counterintuitive positive relationship between the purchase of domestic/caring assistance and time spent in domestic/caring work for particularly time-pressured women we therefore looked specifically at the effect of purchasing child care help on the domestic/caring work time of mothers of young children in dual earner couples according to their economic resources.

Figure 1 shows the predicted domestic/caring work time of women in such couples with children aged under 5 in the household according to their economic resources and whether or not they purchased any child care assistance. The graphed lines are predictions from an OLS regression model that includes economic resources and age (couples’ joint employment status and family structure being already controlled for in the subsample selection). The model was instantiated across women’s resource quintiles for women aged 35 in dual-earner couples with children aged under five. A steady decrease was observed in
domestic/caring work time with increasing resources, with very little difference between the domestic and caring work time of mothers who did and did not purchase child care help. But, notably, those mothers with the highest resources (quintile 5) who purchased some child care help did slightly more domestic and caring work (by about 10 minutes a day) than those who did not purchase child care help.

In sum, we found that the number of hours of domestic/child care assistance purchased was related both to wives’ time availability (as measured by their employment status and the presence of children aged under five), and that it was also related in expected ways to common socioeconomic and demographic variables. However, we found no overall effect of the purchase of domestic/caring assistance on the time that either wives or husbands devoted to domestic work and care. In addition, clear decreases in domestic/caring work times with increasing resources were observed for women likely to be under the greatest pressure of time (mothers of young children in dual-earner couples), irrespective of whether or not they purchased child care assistance.

Findings: multitasking

*Multitasking by gender and presence of children: descriptive statistics*

Figures 2 to 4 graph the distribution of multitasking for wives and husbands in a way that avoids the double counting of activities. The width of each column of the base-proportional histogram or *propogram* (Author reference) represents the total number of minutes spent in each broad category of primary activity, whether done alone or together with a secondary activity. The horizontal axis therefore sums to 1440 (minutes per day). The vertical axis shows the percentages of time spent in each primary activity either alone, or multitasking with other categories of activity (refer to legend for the different combinations of activity). Comparing Figures 2 and 3, wives overall did some multitasked domestic work and a considerably greater proportion of multitasked caring (overwhelmingly, caring for children),
but husbands spent very little time in multitasked domestic work and only a small percentage of time in combinations involving care. In addition, rather more of men’s multitasked domestic work and caring time was done in combinations with leisure. For both wives and husbands, though, the percentage of time and the overall number of minutes per day spent in multitasking involving domestic work was actually rather small (although combinations involving childcare were more substantial for women). This remains true even if we examine the distribution for women in couples who were employed full time and who had dependent children in the household, for whom the pressure of time is likely to be most acute (Figure 4). What is different is that this group of women spent somewhat less time in multitasking combinations involving leisure than the overall percentage for all wives shown in Figure 2, and more time combining personal care with housework.

There is an important consideration here concerning the appropriate measure of multitasking. If we simply take the amount of time spent in domestic multitasking by wives and husbands (where the definition of domestic multitasking includes all combinations of activities where domestic work and/or caring constitutes at least one of the activities being performed), then it is easy to conclude that multitasking constitutes a significant addition to the domestic and caring workloads of wives; wives do 109 minutes a day of domestic multitasking, but husbands do 52. On the other hand, the picture looks somewhat different if we examine the percentage of those who did any domestic multitasking. Overall, a clear majority of both wives (84%) and husbands (65%) did some domestic multitasking as part of their overall domestic and caring workload. So even though more wives multitask than husbands, domestic multitasking is by no means the prerogative of the woman in a couple, nor, given that over 80% of wives did some domestic multitasking, is it something which only certain subgroups of women do.
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In our view a more meaningful measure of domestic multitasking, conceived of as a response to pressure of time, is the proportion of all domestic and caring work that is multitasked. If domestic multitasking can reduce the amount of time taken to accomplish necessary work and family tasks through combining domestic work and caring tasks together or doing them simultaneously with other activities, then the proportion of overall domestic load which is multitasked should be the most meaningful measure. Using this proportionate measure, we find that 33% of wives’ domestic and caring work time involved multitasking, compared to 30% of husbands’ domestic and caring work time. The gender difference here is relatively small and certainly nowhere near as large as that when we consider the number of minutes per day spent in domestic multitasking. Although wives did spend significantly more time overall in domestic work and caring, and in multitasked domestic work, they did not do proportionately any more domestic multitasking than men.

Multitasking: combined multivariate models

To investigate further what factors determine the proportion of domestic and caring work time spent in multitasking, we used multiple regression models, including the same set of independent variables used in Table 3 (models not shown). Surprisingly, these models proved to be very weak for both wives and husbands, predicting less than 5% of variance in the proportion of domestic multitasking. Not one of the independent variables had a statistically significant effect on the proportion of multitasked domestic and caring work. It appears that, unlike in the case of domestic outsourcing, neither the variables reflecting the availability of time (part time or non employment), nor those suggesting a need for domestic multitasking (the presence of dependent children), nor those reflecting economic resources, has any effect on the proportion of domestic work and caring time spent in domestic multitasking. Significantly, the only variable which had a statistically significant effect when added to the model was the overall time devoted to domestic work and caring itself.
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The implication of this failure to predict variation in the proportion of time spent in domestic multitasking is that gender differences in multitasking are related for both husbands and wives in a relatively invariant way to the overall load of domestic work and caring. For wives a full third and for husbands nearly a third of all domestic work and caring is spent multitasking. The fact that wives spend more absolute time in domestic multitasking than husbands therefore largely reflects the fact that they shoulder more of the overall burden of domestic and caring work.

Discussion

In this paper we investigated domestic outsourcing and multitasking as potential strategies for reducing pressure of time for individuals in couples. While the roles played by domestic outsourcing and multitasking have been much speculated upon in the literature on the division of domestic labor, there has been relatively little research directly assessing these claims based on large scale representative data. We used nationally representative time use diary data from the U.K., because, unlike available large-scale US datasets, the U.K. 2000/1 time use survey combined continuous diary information on both primary and secondary activities from both partners, together with information on domestic outsourcing. We nevertheless expect our findings also to be applicable to the U.S. context which, over the past half century, has shown similar trends to other Anglophone countries (the U.K., Canada and Australia) in time use trends related to the gender division of domestic labor (see Author, 1987; Author, 2011; Davis & Greenstein, 2004; Geist & Cohen, 2011; Hook, 2006).

Because our research focus lies in the means by which individuals in couples might reduce the overall time pressure resulting from work-family conflict, we have not, in some of our analyses, separated out the domestic outsourcing of housework from the domestic outsourcing of child care (we have, though, investigated the effects of the purchase of child care assistance on dual earner mothers with small children, since the purchase of this form of
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assistance overwhelmingly dominates the outsourcing of this group). This approach has not permitted us to directly investigate the effect of the outsourcing of housework alone (difficult in any event because the percentage of couples who purchase any help with housework is so small). However, it has enabled us to take a broader view, rare in the literature, of the distribution and effects of the purchase of any domestic/caring assistance, in accordance with our thesis related to time pressure. We have been able to analyze which type of couple is most likely to outsource in general, according to partners’ individual and joint resources and to their employment and family type.

Our finding of no, or at best a very weak, overall relationship between the purchase of domestic/caring assistance and the time that either wives or husbands spend in domestic and caring work resonates with those reported by de Ruijter and van der Lippe (2007), using Dutch data, and Killewald (2011) using U.S. data – although the focus of the latter was on the substitution of cleaning and cooking only. These findings are counter-intuitive because it seems intuitively obvious that the motivation to purchase domestic or caring assistance should in some way be related to pressure of time. We suggest there are two related explanations for the apparently general failure to find an overall relationship with the time that individuals spent in these activities. Firstly, in accordance with previous research, the percentage of couples who purchased any domestic/caring assistance was rather small – at only 13% (see Table 1). Domestic outsourcing was predominantly confined to particular subgroups of couples defined according to joint employment and family status variables – factors which are known to be associated with pressure of time. Although the outsourcing of cleaning never exceeded 8% in any subgroup of couples defined in this way, the purchase of domestic child care assistance was much more variable - reaching over 30% of couples in the most time pressured subgroups. This domination of domestic outsourcing by time-pressured parents employing child care help within the home has been largely missed in the literature.
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On the one hand this has been due to a focus in the relative resources literature on the possible effects of the purchase of help with housework as opposed to domestic child care, and, on the other, by a focus on institutional as opposed to domestic child care outsourcing in the literature on child care outsourcing. Future research could usefully investigate the relationship between the domestic and institutional outsourcing of child care – although very few data sources contain detailed information both on domestic outsourcing and the use of institutional child care services, together with good measures of parental time spent in domestic chores and child care.

The second reason, we suggest, for the general failure to find an association between domestic/care time and the purchase of domestic/care help is a question of demand. Selecting only these particularly time pressured subgroups (dual earner couples with dependent children) for analysis, we actually detected a positive relationship between wives’ domestic work/caring time and the purchase of domestic child care assistance (which overwhelmingly dominates domestic outsourcing for this time pressured subgroup). We suggest that there is likely to be a contradiction here between the individual experience of paying someone to help with child care (which would be likely to have the effect of reducing the burden on the individual), and the relationship between the purchase of such help and time spent in child care/domestic work at the overall level. This apparently paradoxical finding may be explained quite simply; where time pressure on women is at its greatest and the domestic burden at its heaviest there is the greatest need for help. Therefore the need for domestic/caring assistance combined with the ability to pay for it (i.e., the effective demand) is what determines its purchase.

We investigated the relationship to economic resources through the propositions that 1) those with more resources are more likely to outsource domestic and caring tasks than those with fewer resources, and that 2) this relationship would be stronger for wives’
resources than for husbands’. The first proposition appears to be confirmed, for the effects of both wife’s and husband’s resources on the likelihood of purchasing domestic assistance were both positive and statistically significant in multivariate analysis (Table 3, Model 1). This indicates that households can draw directly both on wives’ and husbands’ resources in order to finance such purchases. In support of the second proposition, though, we found that wives’ resources have a slightly stronger effect than those of husband’s, supporting similar findings from Treas and de Ruijter (2008) and Killewald (2011), and indicating that women’s economic resources may be somewhat more important in the decision to purchase domestic assistance than those of their male partners. However, we also found clear decreases in domestic/caring work times with increasing economic resources for women likely to be under the greatest pressure of time (mothers of young children in dual earner couples), regardless of whether or not they purchased domestic child care assistance. So the negative relationship between economic resources and domestic/caring work times usually found in the literature holds here at all levels of economic resources among those women likely to be under the greatest pressure of time, and is not affected by the purchase of domestic/child care assistance. While outsourcing is frequently referred to in the literature as one possible explanation for the observed reduction in women’s unpaid work time as their resources increase, this is the first time to our knowledge that the relationship between economic resources and domestic outsourcing has been tested used large scale nationally representative data (although Killewald, 2011, recently arrived at the same conclusions in relation to cooking and cleaning assistance based on a sample of older couples aged over 50).

Unfortunately it was not possible to directly test the relationship between housework, economic resources and the purchase of cleaning assistance in the same way (i.e. separating out cleaning from child care assistance), since, as we have noted before, overall only a very small percent (6%) of couples employed any cleaning assistance (Table 1).
The literature which has investigated the effect of the economic resources of husbands and wives on the performance of housework and care has often been restricted to consideration of couples where both are in employment, due to the dependence on current income as a measure of resources. Because we used, as a measure of economic resources, an expected wage based on the life-course accumulation of economically-salient resources rather than actual income, we were able to include those not currently employed in our analyses, and to assess the effect of non-employment of one spouse on the likelihood of purchasing domestic/caring assistance. We found that both husband’s and wife’s non-employment was negatively and approximately equally related to the probability of purchasing domestic/caring assistance. It seems that the time availability of non-employed husbands as well as non-employed wives reduces the need for the purchase of domestic/caring assistance, even when controlling for resources. This finding resonates with that of Gough and Killewald (2011) who demonstrated a reallocation effect on domestic work times when one partner is unemployed, with the unemployed spouse picking up more domestic work.

Turning to multitasking, wives did indeed do more domestic multitasking than husbands. Clearly, if time spent in domestic/caring tasks performed alone and those multitasked are summed for wives and husbands, then the overall burden of those who do more in the first place will appear all the greater. But we argue that a more relevant measure of multitasking as a response to time pressure is the proportion of domestic work which is multitasked. Somewhat surprisingly, this turned out to be very similar for wives and husbands, at about a third of all domestic and caring work. Offer and Schneider (2011) using the ESM in a U.S. sample of well-to-do dual earner parents found overall multitasking percentages to be 35% and 43%; somewhat higher than our findings, with a greater gender difference. It may well be that these differences result from the fact that their sample comprised a particularly time pressured subgroup (well-to-do dual earner parents), which,
Domestic outsourcing and multitasking

according to our findings based on the entire population of U.K. couples, would have the
effect of emphasizing the gender gap. On the other hand it is also likely that variation in the
definition of multitasking accounts for some considerable part of the difference, as Offer and
Schneider included employment-related multitasking in their definition and we did not.

Interestingly, none of the standard socioeconomic or demographic factors appeared to affect the proportion of time spent in multitasking (also reported in Offer and Schneider, 2011). We found that the only individual-level variable that had a positive effect, for both husbands and wives, was the overall time spent in domestic and caring work. This finding supports the supposition that opportunity (in the sense of time spent at home) is strongly related to domestic multitasking. Domestic multitasking seems to be a relatively invariant function of the overall burden of domestic and caring work, perhaps related to the ways in which different activities are likely to be combined. Some tasks go easily together – for example running the washing machine and caring for children. So those who have the opportunity to perform one of these tasks (mainly through being at home) are also more likely to be doing the other in a multitasking combination of tasks. The same conclusion could also account for Sayer’s (2007) apparently counter-intuitive findings that non-employed women are more likely to multitask than employed women, and that mothers in male breadwinner families multitask more often than mothers in dual earner families. This result casts doubt on the claim that we can identify women’s second shift in multitasking. An important methodological consideration in support of the alternative, availability or opportunity, interpretation is that paid work is generally recorded as a single activity in time use diaries. On the other hand, the coding of domestic and caring work (usually performed at home) is much more detailed, and therefore more likely to involve the recording of two or more different tasks simultaneously. So a second shift identified through the counting of multitasking in a time use diary context might be at least partly an artifact of diary design.
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This methodological problem could perhaps be solved by elaborating the coding of paid work in time use diary studies, or by using some combination of time use diary records with ESM technology, as in Offer & Schneider (2011).

Finally, we addressed the relationship between multitasking/domestic outsourcing and overall time availability, in order to assess whether they can usefully be regarded as strategies to cope with pressure of time in the context of the burden imposed by combining employment with family work. We hypothesized that those under the greatest pressure of time (i.e., mothers of small children in full time employment) would be the subgroups most likely both to multitask and to purchase domestic/care assistance. In relation to multitasking we did not find evidence to support the proposition. We did not find in multivariate analysis any association between the proportion of domestic/caring time spent multitasking and any other family or employment status variable that might be associated with time pressure. In relation to domestic outsourcing we found that, although the proportion of couples who employed any domestic/caring assistance is rather small (13% overall), one subgroup of couples overwhelmingly dominates these figures - dual earner couples with children. Nevertheless, when we looked directly at the relationship between domestic/caring work time and the employment of domestic/caring assistance for women under particular pressure of time (full time mothers in dual earner couples) we found it to be unexpectedly positive in direction. In conclusion, it appears that neither domestic outsourcing nor multitasking is straightforwardly related to pressure of time in the ways that we might expect.
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References


Coltrane, S. (2010). Gender theory and household labor. Sex Roles, 63, 791-800
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TABLE 1. Percentage Purchasing Domestic Assistance by Couples’ Employment and Family Structure (N = 3740 couples)

<table>
<thead>
<tr>
<th></th>
<th>All assistance: % (n)</th>
<th>Cleaning assistance: %</th>
<th>Child care assistance: %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Couples age &lt;40, no kids</td>
<td>Couples with kids &lt;5</td>
<td>Couples with kids 5+</td>
</tr>
<tr>
<td>Both ft</td>
<td>7 (354)</td>
<td>50 (134)</td>
<td>15 (366)</td>
</tr>
<tr>
<td>Husband ft, wife pt</td>
<td>5 (40)</td>
<td>39 (267)</td>
<td>14 (468)</td>
</tr>
<tr>
<td>Husband ft, wife ne</td>
<td>3 (55)</td>
<td>14 (232)</td>
<td>7 (183)</td>
</tr>
<tr>
<td>Husband ne, wife ne</td>
<td>3 (15)</td>
<td>5 (37)</td>
<td>3 (69)</td>
</tr>
</tbody>
</table>

Note:

ft = full time employed
pt = part time employed
ne = nonemployed
TABLE 2. Percentage of Couples Purchasing Domestic/Caring Assistance by Husband’s and Wife’s Resources: Dual-Earner Couples with Children in the Household (n = 1235)

<table>
<thead>
<tr>
<th>Husband’s resources (quintiles)</th>
<th>Wife’s resources (quintiles)</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Total</th>
<th>Weighted n</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>6</td>
<td>22</td>
<td>*</td>
<td>26</td>
<td>*</td>
<td>14</td>
<td></td>
<td>135</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>7</td>
<td>19</td>
<td>11</td>
<td>40</td>
<td>13</td>
<td></td>
<td>220</td>
</tr>
<tr>
<td>3</td>
<td>12</td>
<td>21</td>
<td>30</td>
<td>22</td>
<td>46</td>
<td>26</td>
<td></td>
<td>313</td>
</tr>
<tr>
<td>4</td>
<td>9</td>
<td>16</td>
<td>32</td>
<td>32</td>
<td>35</td>
<td>24</td>
<td></td>
<td>392</td>
</tr>
<tr>
<td>5</td>
<td>9</td>
<td>16</td>
<td>11</td>
<td>35</td>
<td>53</td>
<td>34</td>
<td></td>
<td>287</td>
</tr>
<tr>
<td>Total</td>
<td>8</td>
<td>17</td>
<td>27</td>
<td>24</td>
<td>44</td>
<td>24</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weighted n</td>
<td>382</td>
<td>215</td>
<td>207</td>
<td>220</td>
<td>364</td>
<td></td>
<td>1387</td>
<td></td>
</tr>
</tbody>
</table>

* indicates cell count < 25; cells in Total and n columns exclude these cells
TABLE 3.  *Logistic Regression of Likelihood of Purchasing Domestic/Caring Assistance (Model 1: N = 4145 couples)* and *OLS Regression of Number of Hours Purchased for those Employing some Domestic Assistance (Model 2: n = 530 couples)* on Partners’ Human Capital, Employment Status and Family Structure.

<table>
<thead>
<tr>
<th></th>
<th>MODEL 1: likelihood of purchasing domestic assistance</th>
<th>MODEL 2: hours of domestic assistance; those who purchase some domestic assistance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Odds Ratio: $\text{Exp}(B)$</td>
<td>$p$</td>
</tr>
<tr>
<td>Wife’s human capital</td>
<td>1.56</td>
<td>.000</td>
</tr>
<tr>
<td>Wife’s human capital sq</td>
<td>.99</td>
<td>.068</td>
</tr>
<tr>
<td>Husband’s human capital</td>
<td>1.30</td>
<td>.003</td>
</tr>
<tr>
<td>Husband’s human capital sq</td>
<td>.99</td>
<td>.088</td>
</tr>
<tr>
<td>Husband full time</td>
<td>REF</td>
<td>REF</td>
</tr>
<tr>
<td>Husband part time</td>
<td>.83</td>
<td>.457</td>
</tr>
<tr>
<td>Husband not employed</td>
<td>.52</td>
<td>.000</td>
</tr>
<tr>
<td>Wife full-time</td>
<td>REF</td>
<td>REF</td>
</tr>
<tr>
<td>Wife part-time</td>
<td>1.04</td>
<td>.768</td>
</tr>
<tr>
<td>Wife not employed</td>
<td>.38</td>
<td>.000</td>
</tr>
<tr>
<td>Couple aged 18-39, no kids</td>
<td>REF</td>
<td>REF</td>
</tr>
<tr>
<td>Couple with kid under 5</td>
<td>10.92</td>
<td>.000</td>
</tr>
<tr>
<td>Couple with kids 5+</td>
<td>1.98</td>
<td>.004</td>
</tr>
<tr>
<td>Couple aged 40+, no kids</td>
<td>.94</td>
<td>.823</td>
</tr>
<tr>
<td>Wife’s age</td>
<td>.88</td>
<td>.000</td>
</tr>
<tr>
<td>Wife’s age sq</td>
<td>1.00</td>
<td>.000</td>
</tr>
<tr>
<td>Constant</td>
<td>.01</td>
<td>.000</td>
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<td>Nagelkerke $R^2$ (Model 1)</td>
<td>.24</td>
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</tr>
<tr>
<td>$R^2$ (Model 2)</td>
<td></td>
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</table>

*Note: Bold type indicates statistically significant results ($p < .05$)
FIGURE 1. *OLS Regression Predictions*: Domestic/Caring work on Paid Child Care Assistance and Wife’s Economic Resources. 35-year old Mothers of Children aged Under Five in Dual-Earner Couples.

*from OLS regression of total domestic/caring work on: whether or not the couple employs child care assistance; economic resources of spouses and economic resources of spouses squared; wife’s age and wife’s age squared*
FIGURE 2: Percentage of Time (Minutes) Spent in Different Activities Showing Multitasked Activities: all Wives (N=4196)

*Note:*

&personal = multitasking involving personal care

&housework= multitasking involving housework

&care=multitasking involving care

&leisure=multitasking involving leisure
FIGURE 3: Percentage of Time (Minutes) Spent in Different Activities Showing Multitasked Activities: all Husbands (N=4196)

Note:

&personal = multitasking involving personal care
&housework= multitasking involving housework
&care=multitasking involving care
&leisure=multitasking involving leisure
FIGURE 4: Percentage of Time (Minutes) Spent in Different Activities Showing Multitasked Activities: Full Time Employed Wives with Dependent Children in the Household

(n = 556)

Note:

&personal = multitasking involving personal care

&housework= multitasking involving housework

&care=multitasking involving care

&leisure=multitasking involving leisure
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2 It is possible that this finding accounts for the tendency in much of the academic literature to suggest that a substantial proportion of the population (i.e. enough to make a difference to the overall relationship between economic resources and housework) employ cleaners.

3 Clustering procedures were used here and in all other multivariate analyses to produce robust standard errors taking account of the two diary days recorded per respondent.

4 The model predicting the likelihood of employing domestic/caring assistance which included wife’s and husband’s absolute resources was found to explain more variance than a model including wife’s absolute and couples’ relative resources, so this combination of partner’s resources was the one we used for these analyses.