

Flexible working and the division of housework and childcare: examining divisions across arrangement and occupational lines

Authors names and details

Dr. Heejung Chung, Professor of Sociology and Social Policy, School of Social Policy, Sociology, and Social Research, University of Kent, UK

Dr. Cara Booker, Research Fellow and Graduate Director, Institute for Social and Economic Research, University of Essex, UK

Abstract

Using the UK Household Longitudinal Study we examine how flexible working is associated with the division of housework and childcare among dual-earner heterosexual couples with young children. Although flexible working may enable better work-family integration, it can also reinforce traditional divisions of domestic labour where women perform more housework and childcare. The degree to which this occurs may vary across arrangements due to differences in the flexibility and permeability of boundaries. We also expect occupational variations but in a paradoxical manner; the constraints and resources workers have may cause the associations to conflict with assumptions based on gender role attitudes. Results show that arrangements that allow more boundary blurring, such as homeworking, are associated with more traditional divisions of childcare but not necessarily of housework. Flexitime, especially for the lower-skilled/paid occupations, enables a more egalitarian division of labour, possibly because it is used to maximise households' working hours and income.

Keywords: childcare, occupational class, division of housework, flexible working, gender roles

Introduction

Flexible working can help tackle gender inequalities by allowing mothers to remain employed and by reducing the likelihood of them reducing their working hours (Chung and Van der Horst, 2018; Fuller and Hirsh, 2018). However, flexible working has the potential to reinforce traditional gender roles (Lott and Chung, 2016; Chung and Van der Lippe, 2020; Clawson and Gerstel, 2014) by expanding mother's time spent on housework and childcare (Sullivan and Lewis, 2001; Hilbrecht et al., 2008), and expanding father's time spent on paid work (Lott and Chung, 2016; Lott, 2019).

Increasingly, there is evidence that gendered outcomes resulting from flexible working arrangements (FWAs) depends on occupational groups and the type of arrangement in question (For evidence from the US see, Kim, 2020; Clawson and Gerstel, 2014). Workers in lower-income/skilled jobsⁱ tend to have more traditional attitudes about gender roles (Knight and Brinton, 2017) and prefer more traditional divisions of labour (Stanczyk et al., 2017). However, members of these groups may display much more egalitarian divisions of housework due to financial resource or job-related constraints (Lyonette and Crompton, 2015). The flexibility and permeability of boundaries enabled by FWAs may also determine the degree to which workers can enact their gender roles (Lott and Chung, 2016; Clark, 2000). Working from home or a lot of schedule control may lead workers to follow traditional gender roles (Kurowska, 2020) to a greater degree than arrangements like flexitime, with constraints that may limit the degree to which couples follow traditional divisions of labour (Kim, 2020). In fact, research shows workers use flexitime to maximise their households' working hours and income, resulting in a more egalitarian division of labour, especially among workers in lower-income occupations (Clawson and Gerstel, 2014). This paper contributes to the existing studies by exploring the intersection of occupational class and arrangement type using a large scale panel data *Understanding Society: the UK*

Longitudinal Household Study (UKHLS). This enables us to better understand whether, for whom, and which type of FWAs lead to patterns of unequal division of domestic labour among heterosexual couples. More specifically, unlike previous studies, we are able to distinguish the impact of different FWAs - namely flexitime, working from home, and schedule control, and their associated use with the division of housework and childcare. What is more, our key contribution lies in our exploration of how associations vary by occupational class, an area which still lacks large scale quantitative evidence. In this paper we focus on dual-earning parents with young children (under 12) because the nature of FWAs and the amount of housework is significantly different for this group.

Background

Definitions and determinants

In this paper, we focus on FWAs that give workers control over *when* or *where* they work (Kelly et al., 2011). The UK offers a unique opportunity to assess different types of FWAs due to the right to request flexible working, introduced to address the work-life balance needs of parents (Lewis et al., 2008: : 272). Initially introduced in 2003, the right was only available to parents of children under age six and children with a disability up to age 18. In 2007, it was extended to parents of children below age 17, and in 2014 to all workers. In this paper, we focus on two FWAs specified in this right, namely flexitime and working from home. Flexitime allows workers to change the timing of their work (e.g., altering start and end times), which can also include the ability to select the numbers of hours one works per day or week and possibly accumulate hours for days off in lieu. Working from home allows workers to work outside their normal office space, at home, for personal reasons. In addition, the data in this paper include schedule control – which refers to workers’ control over their work schedules. Unlike flexitime, schedule control may be more linked to the nature of the

job/company, and entails more flexibility in one's schedule compared to flexitime (see also, Chung and Van der Horst, 2020; Lott and Chung, 2016). As Table 1 in the Appendix shows, although the two concepts are similar, they are arguably distinct arrangements. Although FWAs can also include arrangements like part-time work, we do not examine this given the focus of this article.

Housework refers to unpaid work necessary to maintain the family and home (Coltrane, 2000). Routine housework refers to work that must be done on a daily basis (e.g., cooking, washing dishes, cleaning, laundry) and there are more constraints on when these tasks must be completed. Non-routine housework includes home repairs, garden work, and paying bills; there is more flexibility in terms of when these tasks can be carried out. Childcare can also be distinguished into routine and physical aspects of caring for children, such as feeding and cleaning, and non-routine care, which includes enrichment and educational activities (Craig and Mullan, 2011; Craig and Powell, 2011). Women spend significantly more time on routine housework and childcare than men (Bianchi et al., 2012; Coltrane, 2000), often preventing them from being active in the labour market (Young, 2018; Craig and Mullan, 2011) as fixed schedules may conflict with work schedules and responsibilities.

A number of theoretical perspectives can explain how couples divide housework and childcare (Bianchi et al., 2000; Hook, 2010). The time availability perspective suggests that the division of housework is rationally distributed depending on the amount of time each household member has to do it, and related to FWAs, when that time is available. The relative resources perspective argues that the division of housework/childcare is determined by the relative resources each partner brings to the relationship. The gender or 'doing gender' perspective argues that societal gender roles determine how housework/childcare are divided. Women perform more housework and childcare because they are seen to be responsible for these activities (Taylor and Scott, 2018), and doing these activities is a performance of their

assigned gender role (West and Zimmerman, 1987). Studies show that even when women earn more money (resources) or work longer hours (less time available), they still do more housework/childcare than men (van der Lippe et al., 2018; Lyonette and Crompton, 2015). This is because their breadwinning status contradicts prevalent gender norms in most societies, and women performing (or being forced to perform) housework/childcare enables them and their male partners to reclaim their gender identities (West and Zimmerman, 1987). Similarly, an individual's and their partner's attitudes towards gender roles are important factors in determining who acts as the breadwinner and who performs housework/childcare (Schober, 2013).

Given the fixed nature of routine housework/childcare tasks, having control over when and where workers can do remunerative work helps workers schedule work around familial responsibilities (Clark, 2000). For example, fixed – especially full-time – work schedules may prohibit parents from dropping-off and picking-up their children from school, cooking dinner, or being active in bedtime routines. FWAs can allow workers to adjust work schedules around family schedules. Further, it allows 'tag-team parenting' (e.g., one parent completes school drop-offs but works later, while the other works earlier and does pick-ups) to extend family time. This allows parents to care for children without reducing their working hours or relying on external help (Craig and Powell, 2012), in a way that mirrors shift work (Presser, 1994; Presser, 1988). Having control over the timing of one's work may also allow workers to carry out certain time-specific homemaking tasks – especially routine housework like cooking and shopping – that may not have been possible without such flexibility.

Working from home allows workers to blend work, housework/childcare, as two or more activities can often be done simultaneously (Andrew et al., 2020; Schieman and Glavin, 2008). Additionally, working from home eliminates commuting, which provides workers more time for housework/childcare (Peters et al., 2009).

Variations across gender and occupational class

Our main contribution to the literature is to evidence how the association between flexible working and division of housework varies depending on occupational class, arrangement type and gender. Many studies have evidenced the fact that flexible working and involvement in housework/childcare is moderated by gender (e.g. Chung and Van der Lippe, 2020; Clawson and Gerstel, 2014). Fathers generally experience more work demands compared to mothers. For example, fathers' commuting times and working hours are longer than that of mothers (Joyce and Keiller, 2018). In addition, previous literature shows that FWAs may be especially beneficial for those with high work demands (Karasek, 1979). Considering this, we could expect that fathers' capacity to take part in housework/childcare may be especially enhanced through FWAs. However, previous studies have shown that the positive relationship between FWAs and increased engagement in housework/childcare mostly pertains to mothers rather than fathers (Kurowska, 2020; Kim, 2020).

Based on border theory (Clark, 2000), flexibility and permeability in the work-family life boundary will result in the expansion of the sphere an individual identifies more with. Due to societal norms around gender roles (Scott and Clery, 2013), women use and are expected to use FWAs to meet family demands (Sullivan and Lewis, 2001; Hilbrecht et al., 2008). In fact, such beliefs may explain why women are less likely to access FWAs that offer them more control over when and where they work (Brescoll et al., 2013). FWAs do not change the gender normative assumptions or power dynamics relating to who should carry out housework and childcare, but it can remove some work-related restrictions that might have prevented mothers from carrying out both paid and domestic work (Chung and Van der Horst, 2018; Sullivan and Lewis, 2001). Similarly, gender norms may also prevent men from using FWAs to assume more childcare responsibilities and housework; men may fear losing their masculine (Rudman and Mescher, 2013) and ideal-worker identities (Williams et al.,

2013), which for them may feel more consequential. Moreover, men's prior bargaining power within the household (as breadwinners) could explain why men tend to keep stricter boundaries between work and family (Sullivan and Lewis, 2001) or end up working longer hours when working flexibly (Lott and Chung, 2016; Chung and Van der Horst, 2020). In this sense, FWAs can enable more contemporary enactment of gender roles (see also, Knight and Brinton, 2017) providing mothers the ability to work while maintaining their central roles in housework and childcare and maintaining men's central roles as breadwinners. Given the changes in the norms around fatherhood (Working Families, 2017), one might expect a different outcome for childcare, especially enrichment and interactive childcare. However, as our data mostly captures routine childcare, we do not expect to find a positive association between FWAs for fathers and childcare in this study.

Of the different types of FWAs, we expect those with more boundary blurring potentials to be more problematic – namely, working from home and 'a lot' of schedule control. Flexitime may be less likely to reinforce traditional gender roles (Kim, 2020; Clawson and Gerstel, 2014), in that the flexibility and permeability between work-home boundaries are more constrained by this type of arrangement. Moreover, couples may use flexitime to extend their working hours while maintaining parenting time (Chung and Van der Horst, 2018); as often occurs in the case of shift work (Craig and Powell, 2011; Presser, 1988) to ensure maximum financial security for a household. In Kim's (2020) study of American parents, he shows that the use of flexitime increased fathers' engagement in routine childcare but working from home did not.

One of the key contribution we aim to make in this paper is to further evidence that this gendered patterns in the relationships between FWAs and housework/childcare is moderated by occupational class. However, when considering occupational variations, we expect paradoxical outcomes depending on whether one considers gender ideologies or the

constraints and resources each group faces (Lyonette and Crompton, 2015). Workers in lower-income occupations generally hold more traditional gender role attitudes (Knight and Brinton, 2017; Scott and Clery, 2013), and prefer a more traditional division of labour (Stanczyk et al., 2017). Workers in higher-skilled/income occupations are likely to have more egalitarian views on gender roles and have the resources to deal with housework and childcare by, for example, outsourcing the work (Schober, 2013; De Ruijter and Van der Lippe, 2007). This leads us to expect that while mothers in higher-income occupations are less likely to use FWAs to perform more routine housework/childcare, this may not be true for those in lower-income occupations. For example, a lack of control over one's work in lower-income jobs has been noted as a key reason why women in such occupations are unable to carry out as much housework as they desire (Stanczyk et al., 2017). Further, in a US-based study, mothers in lower-income groups increased their involvement in routine childcare when working flexibly, but mothers in medium-to-higher income groups did not (Kim, 2020). Due to the rise in intensive parenting cultures (Wall, 2010), mothers in higher-income occupations have been increasing the amount of enrichment care they provide to their children (Wishart et al., 2019). This explains why FWAs is often associated with higher motherly involvement in enrichment childcare, even among the higher-income occupations (Kim, 2020). Despite this, we do not expect to find a strong positive association between FWAs and childcare among mothers in higher-income occupations in our study, as the data largely measures routine childcare.

On the other hand, workers in lower-income occupations may experience stricter restrictions at work (less control over other aspects of one's work) and lack resources (e.g. financial resources) that would enable them to perform such gender roles (Tubbs et al., 2005; Roy et al., 2004). Thus, when given access to FWAs, both women and men in lower-income occupations may need to use these tools to perform more housework/childcare and ensure

better integration of work and family demands. This can result in a more equal division of housework for this group in practice (Lyonette and Crompton, 2015). This is especially true when we consider the use of flexitime. If flexitime is used to maximise financial security of the household, as indicated in the previous section, this is more likely to be the case among the lower-income occupations as the need for additional income is more pertinent to this group of workers. Workers in higher-income occupations, particularly men, face ‘constraints of a higher-status worker’ (Schieman et al., 2009), meaning they are more pressured to adhere to the ideal worker norm and increase their working hours or work harder when boundaries between work and family life are blurred (Ashforth et al., 2000; Chung and Van der Horst, 2020). Thus, FWAs for higher-income occupations may result in a reduction in housework/childcare involvement. This may be especially evident among fathers, due to breadwinning responsibilities, resulting in more traditional divisions of labour compared to their lower-income counterparts. This explains why Clawson and Gerstel (2014) find that schedule flexibility led to more traditional divisions of labour among higher-income workers while it led to more egalitarian division of labour among lower-income occupations. For workers in lower-income occupations, flexitime was a crucial tool primarily used to ensure both partners maximised their working hours.

In sum, we come to the following hypotheses for the paper;

H1: Flexible working is associated with higher levels of parental involvement in routine housework and childcare.

H2-1: Working from home and ‘a lot’ of schedule control increases the involvement of mothers but not fathers in housework and childcare, resulting in a more traditional division of housework and childcare.

H2-2: Flexitime increases the involvement of both mothers and fathers in housework and childcare, potentially resulting in a more egalitarian division of housework and childcare.

H3-1: *Working from home and 'a lot' of schedule control increases mothers' involvement in housework and childcare, especially for lower-income occupations, resulting in a more traditional division of housework and childcare.*

H3-2: *Working from home and 'a lot' of schedule control decreases fathers' involvement in housework and childcare, especially for higher-income occupations, resulting in more traditional divisions of housework and childcare.*

H3-3: *Flexitime increases fathers' involvement in housework and childcare, especially for lower-income occupations, resulting in more equal divisions of housework and childcare.*

Data & Methods

Data

This article uses UKHLS (University of Essex, 2016) waves 2, 4, 6, and 8 (2010/2011; 2012/2013; 2014/2015; 2016/17), a UK longitudinal household panel which at wave 1 included approximately 80,000 individuals in 40,000 households. These four waves include information about respondents' FWAs and the distribution of housework between cohabitating couples. We focus on individuals in cohabitating or married heterosexual relationships where both partners were employed for the duration of all waves and had at least one child under the age of 12. Of the individuals who participated in the survey, 44,308 did not participate or were not cohabitating at wave 2. Additionally, 22,543 were excluded as they were not employed and thus FWAs could not be measured for these workers. Another 2,764 individuals were excluded as they did not have at least one child under the age of 12. These exclusion criteria resulted in sample of 1,694 individuals (847 couples) at wave 2. Individuals who had separated or divorced or whose children became older than 12 during the four waves were excluded from the sample. Detailed information regarding the sample and interview procedures are available (Lynn, 2009). Through wave 8, the majority of study

participants were interviewed face-to-face using computer-assisted personal interviews, with a few completing the questionnaire via web.

Dependent variable

The two dependent variables pertaining to couples' division of routine housework and childcare were measured at waves 2, 4, 6, and 8. The first variable was the number of routine domestic labour chores an individual is responsible for. In the survey, respondents were asked who carries out routine and non-routine housework in their households. Routine housework includes grocery shopping, cooking, cleaning, and laundry (i.e., washing/ironing). Participants were asked to select one of the following responses: self, spouse, shared, paid help, or other. Each housework item created a dichotomous variable; the respondent was responsible, versus shared/spouse/others were responsible for the task. The four activities were summed to have a range from 0 to 4 (0 meaning all chores were shared or someone else was fully responsible for them; 4 meaning the respondent was solely responsible for all chores; scores of 1–3 meaning responsibilities for chores were mixed). Responsibility for childcare included the same response categories as the routine housework variables. Due to data restrictions, we were unable to examine childcare in a more defined manner that distinguished between different types of care, such as routine and enrichment care (e.g., Craig and Powell, 2011). However, the way the question is posed, and knowing that the majority of childcare parents perform is routine care (Wishart et al., 2019; Walthery and Chung, 2021), we assumed the question largely refers to routine childcare. This dichotomous variable was coded as follows: the father was responsible or both parents shared the responsibility for childcare (reference = 0) versus the mother or someone else was responsible for childcare (1). The latter two categories were combined because previous studies have shown that even when parents outsource childcare, mothers typically assume the mental labour relating to the outsourcing and possibly perform additional tasks around managing childcare (Walzer, 1996;

Tomlinson, 2006). We also measured the hours spent on routine housework using the following question: ‘About how many hours do you spend on housework in an average week, such as time spent cooking, cleaning and doing the laundry?’ This is a continuous variable ranging from 0–168, but was top coded at 40, excluding seven observations. Finally, one’s share of housework is the proportion of one’s own hours of housework divided by the total hours of housework reported by both partners. Although survey methods may not be as accurate as time diaries, they produce comparable results (Schulz and Grunow, 2012).

Independent variables

At waves 2, 4, 6, and 8, all employees were asked whether certain FWAs were available to them and whether they used any of those methods. There were eight types of FWAs: part-time working, term-time only working, job sharing, flexitime, compressed work weeks, annualised hours, working from home, and other arrangements. Flexitime, compressed work weeks, and annualised hours were grouped under flexitime, working from home was used as a single item. We distinguished between three categories: those for whom such arrangements were not available (reference); those for whom such arrangements were available but they did not use them (avail); and those who used the arrangements (use). Additionally, UKHLS includes a variable about how much control workers have over the time they start or finish their working day. Responses ranged from a lot (4), some (3), a little (2), to none (1; reference).

Control variables

In addition to the couples’ working hours, shift work patterns, relative resources (relative income, education levels [reference: GCSE or lower]), gender role attitudes, and use and availability of FWAs, we include in the model a number of factors that influence the amount of housework and childcare couples perform and how they divide it (Craig and Mullan, 2011; Schober, 2013; Bianchi et al., 2012). This included the number of children within a

household and the age of the youngest child, as having more and younger children in a household increases childcare and housework demands; home ownership (reference: rental) – due to upkeep of the house; chronic illness/disability as it may hinder parents' ability to perform some types of housework/childcare (reference: no chronic illness) (Bianchi, 2000); ethnic minority status (reference: white British), which has been shown to influence housework distribution (Kan and Laurie, 2018); and whether couples were married or cohabitating (reference: cohabitating) and for how long. Although newlyweds are more likely to distribute housework equally, the longer a cohabitation lasts, the more it shifts to a traditional gendered division of labour where the woman takes on more responsibilities (Grunow et al., 2012). One's age, one's partner's age, and the area in which one resides (i.e., urban [reference] or rural) may also influence the division of housework due to differing social and normative contexts and socialisation processes. Additional information regarding coding can be found in the Appendix.

Analytical scheme

We used random effect models for our analyses (for more, see the Appendix) that were separated by gender, as we hypothesised that the association between FWAs and domestic labour will differ by gender. As our key objective of the paper is to evidence occupational variations of this relationship, we included an interaction term with occupational levels. Here, we distinguished between managers, professionals, and associate professionals (ISCO 1-3) and other workers (ISCO 4-9). Previous studies (e.g., Chung, 2019; Chung and Van der Horst, 2020) show that there are clear divisions between these two groups of workers in terms of access to and outcomes of FWAs. Our main findings appear in the tables and full models in the Appendix. All analyses were conducted in Stata 16.

Results

Analytical sample

Due to changes in certain characteristics (i.e., age, household income, age of youngest child), descriptive statistics are presented for wave 2 only (Appendix Table 2). Examination of those characteristics at waves 4, 6, and 8 revealed similar results. Women were responsible for 2.48 routine domestic chores, while men were responsible for only 0.43. Similarly, women spent more hours (13.36) on housework than men (5.53). Women's share of housework was 0.70 ($SD = 0.20$), while men's was 0.30 ($SD = 0.20$). More than half of women reported that they were mainly responsible for childcare (54%), but according to the male sample, this was not necessarily the case (45% reporting mothers/others were responsible).

A larger proportion of women used flexitime (15%) compared to men (11%), while a larger proportion of men (7%) used work-from-home arrangements than women (5%). More women reported they had 'no control' over their schedules (34%) compared to men (23%), and accordingly, more men reported 'a lot' of schedule control (38%) compared to women (27%). Close to half of the respondents were in managerial, professional, or associate professional roles (48% of women and 50% of men). Unsurprisingly, (Appendix Table 3) those in higher-income occupations were more likely to use flexitime (19% of women and 13% of men) or work-from-home arrangements (7% of women and 12% of men), than those in lower-income occupations (flexitime: 12% of women and 8% of men; work-from-home: 3% of women and 2% of men).

Multivariate regression

As Model 1-3 in Table 1 shows, mothers who had access to ($-0.02, p < .05$) or used ($-0.03, p < .05$) flexitime reported performing a smaller share of housework compared to those who did not. Similarly, mothers who regularly worked from home reported that they were responsible for fewer routine tasks (Model 1-1: $-0.13, p < .05$) and spent fewer hours on

housework (Model 1-2:-2.05, $p<.01$) compared to those who did not. This finding was confirmed in the fathers' models, which show that partners (i.e., mothers) with FWAs (flexitime or working from home) increase the proportion of housework that men performed (see Appendix, Table 6). Contrarily, mothers with 'a lot' of schedule control assumed more routine housework tasks (Model 1-1:0.07, $p<.05$) and were less likely to report that childcare is shared/father were responsible (Model 1-4: odds=0.50, $p<.05$).

[Table 1 here]

As Table 2 shows, other than 'a lot' of schedule control marginally increasing fathers' share of routine housework tasks (Model 2-1:0.24, $p=0.05$), none of the flexible working arrangements revealed significant associations with fathers' routine housework patterns. However, fathers who worked from home (Model 2-4:odds=0.51, $p<.05$) or had the option available yet did not use it regularly (Model 2-4:odds=0.57, $p<.05$) were significantly less likely to report that they shared or were mainly responsible for childcare, compared to those who did not have access to the arrangement.

The results partially confirm Hypothesis 2-1 that schedule control and (to some extent) working from home reinforces traditional divisions of labour among couples. Schedule control increased women's involvement in care and housework (see also, Kim, 2020), while men tended to reduce their childcare responsibilities when working from home (Lott, 2019; Kim, 2020). Also confirming Hypothesis 2-2, the results indicate that flexitime enables more egalitarian divisions of housework among heterosexual co-resident parents. On the other hand, the results also indicate that working from home reduces mothers' proportion of housework responsibilities, which contradicts our expectations.

[Table 2 here]

Interaction with occupational class

The main focus of this paper, examining the occupational class variation in the association between FWAs and gendered patterns of housework/childcare is presented in Tables 3&4. Only the significant results are provided here. First, mothers in higher-income occupations were more likely to report greater involvement of fathers in childcare. Additionally, when separating the relationship between FWAs and childcare across occupational-lines, the coefficient for flexitime use became significant (Model 3-1: odds=2.14, $p<.05$; Model 3-2: odds=1.71, $p<.05$; Model 3-3: odds=1.72, $p<.05$). This indicates that flexitime use among women in lower-income occupations was significantly associated with higher likelihoods of fatherly involvement in childcare. This result mirrors findings in previous studies (Clawson and Gerstel, 2014; Craig and Powell, 2011); mothers in lower-income occupations use flexitime to increase their working hours without relying on secondary childcare arrangements (Presser, 1988), by increasing father's involvement in childcare.

As Model 3-2 in Table 3 and Figure 1 show, women in lower-income occupations who work-from-home were significantly more likely to be responsible for childcare (odds ratio for work-from-home use=0.10, $p<.01$). Homeworking may allow mothers in lower-income jobs to combine childcare and work without relying on fathers' involvement (see also, Kim, 2020). The opposite was true for women in higher-income occupations (Model 3-2: odds for work-from-home use*higher occupation=18.20, $p<.01$), where working from home was linked to a slightly higher likelihood of couples sharing childcare responsibilities. For women in higher-income occupations, working from home might have helped them maintain but not increase their childcare involvement while maintaining their work intensity and career responsibilities (Fuller and Hirsh, 2018; Chung and Van der Horst, 2018). Finally, by introducing the interaction term, Model 3-3 makes evident the relationship between schedule control and mothers being responsible for childcare. Women in lower-income occupations

with schedule control were significantly less likely to report they shared childcare with fathers (Model 3-3: ‘some’ odds=0.46, $p<.05$ and ‘a lot’ odds=0.36, $p<.01$).

Finally, Table 4 and Figure 2 provide information about how fathers’ use of FWAs shape their responsibility in routine housework across occupational class lines. First, the results show no differences across occupations in the amount of routine housework tasks fathers took up. However, occupational class significantly moderated the association between flexible working and taking up routine housework tasks. Specifically, the interaction between occupational class and the availability of flexitime (Model 4-1 -0.46, $p<.05$), schedule control (Model 4-2: ‘some’=-0.54, $p=.06$, ‘a lot’=-1.69, $p<.05$), and working from home (Model 4-2: -0.69, $p=.10$; Model 4-4: -0.77, $p<.05$) show that FWAs was more likely to be associated with increased fathers’ participation in routine housework tasks for those in lower-income occupations.

[Table 3&4, Figures 1&2 here]

Robustness tests

Although schedule control, flexitime, and working from home are theoretically distinct arrangements, individuals may in practice use these arrangements in combination. In fact, many people who used work-from-home arrangements also had ‘some’ or ‘a lot’ of schedule control (e.g., 93% of men and 79% of women working from home have ‘some’ or ‘a lot’ of schedule control), although a majority of those with ‘some’ or ‘a lot’ of schedule control did not work from home (see also Appendix Table 1). Based on this, we ran an additional robustness test, removing schedule control from our model (see Appendix, Tables 10–13). We found that the coefficient sizes did not change much while significance levels have changed for the following: the relationship between mothers who work from home and responsibility for fewer routine housework tasks found in Model 1-1 became insignificant

(Appendix Table 10), and the positive association between flexitime and childcare among mothers in lower-income occupations (Appendix Table 12) became insignificant.

Furthermore, we tested to determine whether the gendered outcomes of FWAs across different occupations are largely due to differences in gender role attitudes among these groups. Note that participants were only asked about their gender role attitudes in waves two and four; thus, the mean was imputed for waves six and eight. This assumes that gender role attitudes did not change between the waves, which may be incorrect, as changes could have occurred with births or the increasing age of children (Baxter et al., 2012). Having tested the interaction between individuals' gender role attitudes, instead of occupational levels, and FWAs, the results were insignificant. This indicates that the variations in occupational classes cannot be purely attributed to differences in attitudes.

Discussion/Conclusion

This article contributes to the existing literature around flexible working and division of housework and childcare among heterosexual coupled-parents by examining how these relationship may vary across occupational class lines. Results show that, women who used or had flexitime available performed fewer routine housework tasks, spent fewer hours completing housework, and completed a smaller share of housework tasks. Consequently, we somewhat reject Hypotheses 1 and 2-2 for mothers in that not all FWAs lead to increased female involvement in housework and childcare. Women in lower-income occupations who used flexitime were also more likely to indicate that their partners were fairly involved in childcare. Men in lower-income occupations who use flexitime were also more likely to report that they performed more routine housework. This confirmed Hypotheses 2-2 and 3-3 in regards to mothers, in that relatively constrained FWAs – namely, flexitime – resulted in a more equal division of unpaid labour between couples due to increased fatherly involvement

(see also, Langner, 2018; Presser, 1988). What our study shows is that this relationship is especially true among lower-income occupations.

However, per Hypothesis 2-1, FWAs which result in greater blurring of boundaries between work and home life – such as high levels of schedule control or working from home – were generally associated with unequal divisions of housework and childcare. This was especially true for mothers in lower-income occupations, who were more likely to report that they bore most of the responsibility for childcare; working from home and having high levels of schedule control increased this likelihood, confirming Hypothesis 3-1. Mothers in managerial and professional roles were more likely to report that their partners were more involved in childcare overall and the use and access to FWAs had not changed this balance. Fathers who worked from home (regardless of occupational class) were less likely to be significantly involved in childcare, confirming previous studies (Sullivan and Lewis, 2001; Kim, 2020). However, working from home was also associated with greater responsibility for more routine housework tasks but only among men in lower-income occupations. For this group, the ability to work flexibly may assist in meeting household demands that they were previously not performing due to a lack of resources or other factors. This again confirms Hypothesis 3-3 based on a resource constraints perspective.

These results are unlikely to stem solely from variations in gender role attitudes, as our robustness tests show. Again, resource constraints and the ways workers in different occupations use FWAs (Allen et al., 2015) may offer better explanations. Arrangements that allow for greater blurring of boundaries may require that workers devote more attention to work, especially among fathers in higher-income occupations (Chung and Van der Horst, 2020; Ashforth et al., 2000), resulting in reduced performance of housework and childcare. For women in higher-income occupations, FWAs may ensure continuous labour market presence during motherhood (see also, Fuller and Hirsh, 2018; Chung and Van der Horst,

2018) while resisting falling into the more traditional divisions of labour, possibly through outsourcing housework and routine childcare (De Ruijter and Van der Lippe, 2007). Due to the cost and lack of outsourcing opportunities, women – and to a certain degree, men – in lower-income occupations may use FWAs to meet childcare and other housework demands. As such, FWAs may be especially important in enhancing the work and care capacities of working parents in lower-income occupations, allowing them to integrate work with family demands (Kim, 2020; TUC, 2017). It is useful to note here that for many of our results, the differences lie between workers who have access to FWAs versus those who do not, rather than between those who use FWAs or not. This may be, on one hand, due to the fact that having FWAs available can be a resource for workers even if they do not make use of it regularly (Chung and Van der Horst, 2018). However, this can also entail that rather than FWAs, there may be confounding factors unobserved in the data (e.g. family-friendly work environment, public sector) that is driving the result.

Flexible working has been hailed as a useful policy tool to tackle both the work-life balance demands of working families and gender inequality issues in the labour market. Our study shows that flexible working arrangements may provide families with critical support when resources to meet childcare and housework demands are limited. This highlights the need to strengthen the rights for flexible working especially for those in lower-paid occupation, who lack such opportunities (Stewart and Bivand, 2016).

Flexible working arrangements, especially those with more boundary control and permeability possibilities, however, also have the potential to lead to contemporary enactment of traditional gender roles by allowing female partners to work while maintaining the unequal division of unpaid work at home (Chung and Van der Lippe, 2020). Our study has shown that although couples in lower-income occupations may desire more traditional divisions of labour, these goals may not necessarily be borne out due to the limited resources

available to these workers, and due to a greater need for financial stability. Similarly, although couples in higher-income occupations may strive for equal divisions of labour through flexible working arrangements, career devotion may constrain this group of workers. This paper provided a first glimpse into these paradoxical gendered outcomes of flexible working arrangements across occupational groups and various types of such arrangements. Future studies should explore these issues further to better understand what the expansion of flexible working arrangements might mean for gender equality in the future and how this varies across different groups of workers.

As flexible working becomes more of a norm, we need to ensure that we are able to benefit from its use whilst being cognisant of the potential problems it can bring. This study adds to growing research showing how flexible working with its potential for blurring of boundaries may result in unintended negative consequences (Chung, 2022a), in this case, for gender inequality. Policy makers both at national and company levels need to be aware of such issues, introduce other policy measures to help shape our gender and work cultures. This can include generous ear-marked paternity leaves that can shift norms around whose role it is to care, or push towards a reduction in working hours to help change work cultural norms (Chung, 2022b). This will ensure that the expansion of flexible working practices does not result in exacerbating the problems of gender inequality neither in the home nor in the labour market.

References

- Allen TD, Golden TD and Shockley KM (2015) How effective is telecommuting? Assessing the status of our scientific findings. *Psychological Science in the Public Interest* 16(2): 40-68.
- Andrew A, Cattan S, Dias MC, et al. (2020) How are mothers and fathers balancing work and family under lockdown??. *Institute for Fiscal studies*. DOI: 10.1920/BN.IFS.2020.BN0290.
- Ashforth BE, Kreiner GE and Fugate M (2000) All in a day's work: Boundaries and micro role transitions. *Academy of Management review* 25(3): 472-491.

- Baxter J, Buchler S and Western. M (2012) A Life Changing Event: First Births and Men's and Women's Attitudes to Gender Roles and Motherhood. In: *Population Association of America Conference*, San Francisco.
- Bianchi SM (2000) Maternal employment and time with children: Dramatic change or surprising continuity? *Demography* 37(4): 401-414.
- Bianchi SM, Milkie MA, Sayer LC, et al. (2000) Is anyone doing the housework? Trends in the gender division of household labor. *Social Forces* 79(1): 191-228.
- Bianchi SM, Sayer LC, Milkie MA, et al. (2012) Housework: Who did, does or will do it, and how much does it matter? *Social Forces* 91(1): 55-63.
- Brescoll VL, Glass J and Sedlovskaya A (2013) Ask and Ye Shall Receive? The Dynamics of Employer-Provided Flexible Work Options and the Need for Public Policy. *Journal of Social Issues* 69(2): 367-388.
- Chung H (2019) National-level family policies and the access to schedule control in a European comparative perspective: crowding out or in, and for whom? *Journal of Comparative Policy Analysis* 21(1): 23-40.
- Chung H (2022a) *The Flexibility Paradox: Why flexible working leads to (self-)exploitation*. Bristol: Policy Press.
- Chung H (2022b) A Social Policy case for a four-day week. *Journal of Social Policy* online first.
- Chung H and Van der Horst M (2018) Women's employment patterns after childbirth and the perceived access to and use of flexitime and teleworking. *Human Relations* 71(1): 47-72.
- Chung H and Van der Horst M (2020) Flexible working and unpaid overtime in the UK: The role of gender, parental and occupational status. *Social Indicators Research* 151(2): 495-520.
- Chung H and Van der Lippe T (2020) Flexible working work life balance and gender equality: Introduction. *Social Indicators Research* 151(2): 365-381.
- Clark SC (2000) Work/family border theory: A new theory of work/family balance. *Human Relations* 53(6): 747-770.
- Clawson D and Gerstel N (2014) *Unequal time: Gender, class, and family in employment schedules*. New York: Russell Sage Foundation.
- Coltrane S (2000) Research on household labor: Modeling and measuring the social embeddedness of routine family work. *Journal of Marriage and Family* 62(4): 1208-1233.
- Craig L and Mullan K (2011) How Mothers and Fathers Share Childcare A Cross-National Time-Use Comparison. *American Sociological Review* 76(6): 834-861.
- Craig L and Powell A (2011) Non-standard work schedules, work-family balance and the gendered division of childcare. *Work, Employment & Society* 25(2): 274-291.
- Craig L and Powell A (2012) Dual-earner parents' work-family time: the effects of atypical work patterns and non-parental childcare. *Journal of Population Research* 29(3): 229-247.
- De Ruijter E and Van der Lippe T (2007) Effects of job features on domestic outsourcing as a strategy for combining paid and domestic work. *Work and Occupations* 34(2): 205-230.
- Fuller S and Hirsh CE (2018) "Family-Friendly" Jobs and Motherhood Pay Penalties: The Impact of Flexible Work Arrangements Across the Educational Spectrum. *Work and Occupations* 46(1): 3-44.
- Grunow D, Schulz F and Blossfeld H-P (2012) What determines change in the division of housework over the course of marriage? *International Sociology* 27(3): 289-307.

- Hilbrecht M, Shaw SM, Johnson LC, et al. (2008) 'I'm home for the kids': contradictory implications for work-life balance of teleworking mothers. *Gender, Work & Organization* 15(5): 454-476.
- Hook JL (2010) Gender inequality in the welfare state: Sex segregation in housework, 1965–2003. *American Journal of Sociology* 115(5): 1480-1523.
- Joyce R and Keiller A (2018) The 'gender commuting gap' widens considerably in the first decade after childbirth. *Institute for Fiscal studies* 7.
- Kan M-Y and Laurie H (2018) Who is doing the housework in multicultural Britain? *Sociology* 52(1): 55-74.
- Karasek RAJ (1979) Job demands, job decision latitude, and mental strain: Implications for job redesign. *Administrative science quarterly* 24(2): 285-308.
- Kelly EL, Moen P and Tranby E (2011) Changing workplaces to reduce work-family conflict: schedule control in a white-collar organization. *American Sociological Review* 76(2): 265-290.
- Kim J (2020) Workplace Flexibility and Parent-Child Interactions among Working Parents in the U.S. *Social Indicators Research* 151(2): 427–469.
- Knight CR and Brinton MC (2017) One egalitarianism or several? Two decades of gender-role attitude change in Europe. *American Journal of Sociology* 122(5): 1485-1532.
- Kurowska A (2020) Gendered effects of home-based work on parents' capability to balance work with nonwork. Two countries with different models of division of labour compared. *Social Indicators Research* 151(2): 405-425.
- Langner LA (2018) Flexible men and successful women: the effects of flexible working hours on German couples' wages. *Work, employment and society* 32(4): 687-706.
- Lewis J, Knijn T, Martin C, et al. (2008) Patterns of development in work/family reconciliation policies for parents in France, Germany, the Netherlands, and the UK in the 2000s. *Social Politics: International Studies in Gender, State & Society* 15(3): 261-286.
- Lott Y (2019) Weniger Arbeit, mehr Freizeit? Wofür Mütter und Väter flexible Arbeitsarrangements nutzen. Reportno. Report Number|, Date. Place Published|: Institution|.
- Lott Y and Chung H (2016) Gender discrepancies in the outcomes of schedule control on overtime hours and income in Germany. *European Sociological Review* 32(6): 752-765.
- Lynn P (2009) Sample design for understanding society. Reportno. Report Number|, Date. Place Published|: Institution|.
- Lyonette C and Crompton R (2015) Sharing the load? Partners' relative earnings and the division of domestic labour. *Work, employment and society* 29(1): 23-40.
- Peters P, Den Dulk L and van der Lippe T (2009) The effects of time-spatial flexibility and new working conditions on employees' work-life balance: The Dutch case. *Community, Work & Family* 12(3): 279-297.
- Presser HB (1988) Shift work and child care among young dual-earner American parents. *Journal of Marriage and the Family* 50(1): 133-148.
- Presser HB (1994) Employment schedules among dual-earner spouses and the division of household labor by gender. *American Sociological Review*. 348-364.
- Roy KM, Tubbs CY and Burton LM (2004) Don't have no time: Daily rhythms and the organization of time for low-income families. *Family relations* 53(2): 168-178.
- Rudman LA and Mescher K (2013) Penalizing men who request a family leave: Is flexibility stigma a femininity stigma? *Journal of Social Issues* 69(2): 322-340.
- Schieman S and Glavin P (2008) Trouble at the Border?: Gender, Flexibility at Work, and the Work-Home Interface. *Social problems* 55(4): 590-611.

- Schieman S, Glavin P and Milkie MA (2009) When Work Interferes with Life: Work-Nonwork Interference and the Influence of Work-Related Demands and Resources. *American Sociological Review* 74(December): 966-988.
- Schober PS (2013) The parenthood effect on gender inequality: Explaining the change in paid and domestic work when British couples become parents. *European Sociological Review* 29(1): 74-85.
- Schulz F and Grunow D (2012) Comparing diary and survey estimates on time use. *European Sociological Review* 28(5): 622-632.
- Scott J and Clery E (2013) Gender roles: An incomplete revolution? Reportno. Report Number|, Date. Place Published|: Institution|.
- Stanczyk AB, Henly JR and Lambert SJ (2017) Enough time for housework? Low-wage work and desired housework time adjustments. *Journal of Marriage and Family* 79(1): 243-260.
- Stewart E and Bivand P (2016) *How flexible hiring could improve business performance and living standards*. London: Joseph Rowntree Foundation.
- Sullivan C and Lewis S (2001) Home-based telework, gender, and the synchronization of work and family: perspectives of teleworkers and their co-residents. *Gender, Work & Organization* 8(2): 123-145.
- Taylor EA and Scott J (2018) Gender: New consensus or continuing battleground? In: Phillips D, Curtice J, Phillips M, et al. (eds) *British Social Attitudes: The 35th Report*. London: The National Centre for Social Research.
- Tomlinson J (2006) Women's work-life balance trajectories in the UK: Reformulating choice and constraint in transitions through part-time work across the life-course. *British Journal of Guidance & Counselling* 34(3): 365-382.
- Tubbs CY, Roy KM and Burton LM (2005) Family ties: Constructing family time in low-income families. *Family Process* 44(1): 77-91.
- TUC (2017) Better jobs for mums and dads. London: Trades Union Congress.
- van der Lippe T, Treas J and Norbutas L (2018) Unemployment and the division of housework in Europe. *Work, employment and society* 32(4): 650-669.
- Wall G (2010) Mothers' experiences with intensive parenting and brain development discourse. *Women's Studies International Forum*. Elsevier, 253-263.
- Walthery P and Chung H (2021) Sharing of childcare and well-being outcomes: an empirical analysis. Reportno. Report Number|, Date. Place Published|: Institution|.
- Walzer S (1996) Thinking about the baby: Gender and divisions of infant care. *Social problems* 43(2): 219-234.
- West C and Zimmerman DH (1987) Doing gender. *Gender & Society* 1(2): 125-151.
- Williams J, Blair-Loy M and Berdahl JL (2013) Cultural schemas, social class, and the flexibility stigma. *Journal of Social Issues* 69(2): 209-234.
- Wishart R, Dunatchik A, Mayer M, et al. (2019) Changing Patterns in Parental Time Use in the UK. Reportno. Report Number|, Date. Place Published|: Institution|.
- Young Z (2018) *Women's Work: How mothers manage flexible working in careers and family life*. Bristol: Bristol University Press.

<Tables and Figures>

Table 1. The association between flexible working and housework for mothers

	Routine		Hours of Housework		Share of Housework		Childcare ^a	
	Model 1-1		Model 1-2		Model 1-3		Model 1-4	
	Estimates	p-value	Estimates	p-value	Estimates	p-value	Odds	p-value
Flexitime (ref= not available)								
Available	0.02	.46	-0.54	.31	-0.02**	.03	1.19	.46
Use	0.03	.41	0.09	.89	-0.03**	.03	1.26	.38
Work-from-home (ref=not available)								
Available	-0.07	.13	0.27	.62	0.02	.13	1.29	.41
Use	-0.13**	.04	-2.05***	.00	-0.03	.14	0.68	.35
Schedule Control (ref = None)								
A little	-0.04	.22	-0.09	.88	-0.01	.67	1.21	.47
Some	0.00	.95	-0.23	.65	-0.01	.67	0.69	.21
A lot	0.07**	.04	-0.01	.99	0.01	.24	0.50**	.02
Constant	1.69***	.00	19.24***	.00	1.07***	.00	0.00***	.00
N	1,912		1,900		1,832		1,710	

*** p<.01, ** p<.05, * p<.10

Note: Random effects models for women with at least one child under the age of 12 (model controls for a list of variables – full model in Appendix Tables 4&5)

a: for childcare odds ratios are provided. Note here 1 indicates when fathers are involved in childcare.

Table 2. The association between flexible working and housework for fathers

	Routine		House of Housework		Share of Housework		Childcare ^a	
	Model 2-1		Model 2-2		Model 2-3		Model 2-4	
	Estimates	p-value	Estimates	p-value	Estimates	p-value	Odds ratio	p-value
Flexitime (ref=not available)								
Available	-0.01	.93	0.28	.40	0.02	.13	1.18	.43
Use	-0.12	.35	0.04	.91	0.00	.85	1.50	.11
Work-from-home (ref=not available)								
Available	0.07	.60	0.16	.68	0.01	.41	0.57**	.03
Use	0.05	.73	-0.44	.28	0.02	.30	0.51**	.03
Schedule Control (ref = None)								
A little	0.02	.87	-0.34	.42	-0.00	.83	1.46	.15
Some	-0.06	.59	-0.63	.11	-0.00	.77	0.90	.68
A lot	0.24*	.05	-0.24	.56	0.00	.80	1.07	.81
Constant	-1.59***	.03	-0.90	.67	0.06	.42	0.13	.21
N	1,874		1,864		1,833		1,582	

*** p<.01, ** p<.05, * p<.10

Note: Random effects models for men with at least one child under the age of 12(model controls for a list of variables – full model in Appendix Table 6&7)

a: for childcare odds ratios are provided. Note here 1 indicates when fathers are (more) involved in childcare.

Table 3. The association between flexible working and childcare for mothers across occupational lines

	Mothers					
	Childcare					
	Model 3-1		Model 3-2		Model 3-3	
	Odds	p-value	Odds	p-value	Odds	p-value
Higher occupation (ref=other)	1.80**	.04	1.53*	.09	1.50	.26
Flexitime (ref= not available)						
Available	1.42	.23	1.43*	.09	1.46*	.07
Use	2.14**	.04	1.71**	.04	1.72**	.04
Flexitime avail*High occupation	1.04	.93				
Flexitime use*High occupation	0.69	.44				
Work-from-home (ref=not available)						
Available	1.45	.19	1.85	.25	1.43	.21
Use	0.99	.97	0.10***	.01	0.94	.88
Work-from-home avail*High occupation			0.73	.61		
Work-from-home use*High occupation.			18.20***	.00		
Schedule Control (ref = None)						
A little	0.64	.18	1.16	.53	1.26	.49
Some	0.37*	.09	0.64*	.09	0.46**	.02
A lot	1.03***	.00	0.39***	.00	0.36***	.00
Sch. control a little*High occupation					0.84	.73
Sch. control some*High occupation					1.79	.25
Sch. control a lot*High occupation					1.14	.79
Constant	0.00***	.00	0.00***	.00	0.00***	.00
N	1,856		1,856		1,856	

*** p<.01, ** p<.05, * p<.1

Note: Random effects models for women with at least one child under the age of 12 (model controls for a list of variables – full model in Appendix Table 8)

Here high occupational group includes Managers, Professionals and Associate Professionals and Technicians.

Table 4. The association between flexible working and division of housework for fathers across occupational lines

	Fathers							
	Routine housework							
	Model 4-1		Model 4-2		Model 4-3		Model 4-4	
	Estimates	p	Est	p	Estimates	p	Estimates	p
Higher occupation (ref=other)	0.18	.23	0.14	.32	0.19	.41	-0.06	.73
Flexitime (ref= not available)								
Available	0.23	.17	-0.01	.91	-0.03	.82	0.02	.87
Use	-0.02	.92	-0.12	.47	-0.15	.34	-0.34*	.05
Flexitime avail*High occupation	-0.46**	.04					-0.05	.77
Flexitime use * High occupation	-0.19	.53					0.36*	.09
Work-from-home (ref=not available)								
Available	0.10	.56	0.39	.20	0.08	.65	0.21	.38
Use	0.07	.72	0.60	.12	0.07	.73	0.82**	.01
Work home avail*High occupation			0.41	0.23			-0.26	.34
Work home use*High occupation			-0.69*	0.10			-0.77**	.03
Schedule Control (ref = None)								
A little	0.01	.93	0.02	.90	0.02	.91	-0.19	.16
Some	-0.08	.58	-0.08	.58	0.18	.32	0.07	.57
A lot	0.24*	.10	0.22	.12	0.19	.33	0.08	.55
Sch. control a little*High occupation					-0.05	.85	0.12	.56
Sch. control some*High occupation					-0.54*	.06	-0.25	.23
Sch. control a lot*High occupation					-1.69*	.04	-0.08	.72
Constant	-1.57*	.05	0.03	.77	0.00***	.00		
N	1,815		1,815		1,815			

*** p<.01, ** p<.05, * p<.1

Note: Random effects models for women with at least one child under the age of 12 (model controls for a list of variables – full model in Appendix Table 9)

Here high occupational group includes Managers, Professionals and Associate Professionals and Technicians.

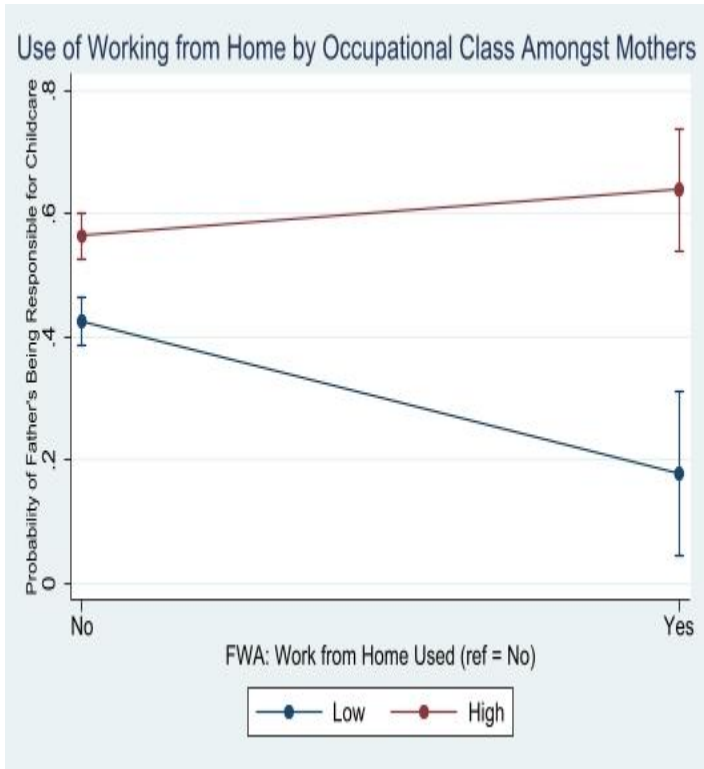


Figure 1. Association between mothers working from home and likelihood of parents sharing or fathers being mainly responsible for childcare by occupational level (high=Managers and (Associate) Professionals, low=others)

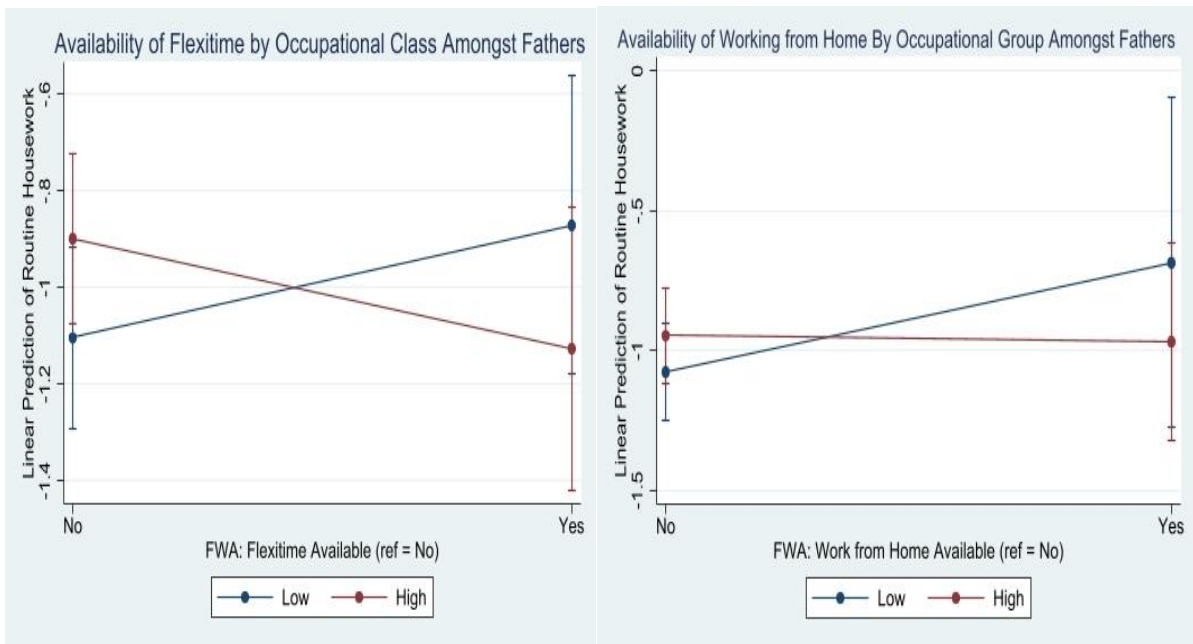


Figure 2. Association between flexitime and working from home and number of routine housework carried out by fathers by occupational level (high=Managers and (Associate) Professionals, low=others)

Online appendix

Online Appendix for paper

Flexible working and division of household labour among dual earner couples with children

** Description of the control variables and their operationalisation

Control variables

The following individual and household variables are included; Age, duration of cohabitation, gender roles attitudes score, hours worked per week, relative personal income, number of children in household and age of youngest child are all included in the model as continuous variables. Duration of cohabitation number of years the participants have lived together, including years of cohabitation for married couples. Gender roles attitudes (GRA) score was a sum of five questions regarding the roles of men and women in the family. These questions were scored on a 5-point Likert scale with total scores ranging from 6 to 30 with larger numbers indicating more egalitarian attitudes. The GRA was asked in waves 2 and 4 only, scores were imputed for waves 6 and 8 using the mean scores from waves 2 and 4. Relative personal income is the participant's gross monthly income divided by the number of hours worked per week. Relative personal income was log transformed. Categorical variables include ethnicity, cohabitation status, limiting long-standing illness (LLSI), educational attainment, shift work, housing tenure and urban/rural indicator. Ethnicity is a categorical variable, distinguishing between white (reference), Indian/Pakistani/Bangladeshi, Black African/Caribbean, other ethnicity and mixed ethnicity. Cohabitation status is a dichotomous variable, distinguishing between cohabiting couples and married couples (reference). Limiting long-standing illness is a combination of two questions about whether the participant has a disability and if so what type. LLSI is a dichotomous variable with no LLSI as the reference. Educational attainment is a dichotomous variable, A level or higher and GCSE or lower (reference). Shift work is assessed by one question regarding the times of day usually worked. Shift work is a dichotomous variable, during the day (reference) and any other times (evenings, night or weekends) combined as the second category. Housing tenure is a dichotomous variable, owned or rented=1, or other (reference). Additionally, we include several spousal variables: age, hours worked, use of flexitime or working from home, gender roles attitudes score and educational attainment.

** Description of the analysis methods applied.

Hausman Tests were conducted to determine between the use of fixed or random effects models. Results show that random effects estimation was the best model in most cases. Poission (count), linear and logistic (childcare) random effects models were used. Random effects models are estimated by partially pooling both between individuals and within individual effects. All analyses are separated by gender as our hypotheses state the patterns flexible working arrangements and domestic labour patterns will differ by gender. We include an interaction term with occupational levels to test whether the association between flexible working arrangements and division of housework/care is different depending on the occupational level of the worker. Here we distinguish between Managers, Professionals and Associate Professionals (ISCO 1-3), versus other workers (ISCO 4-9). Previous studies (e.g., AuthorA; AuthorA&Other1) show that there are clear divisions between these two groups of workers in terms of the access to flexible working but also the outcomes of it. Main findings are presented in the tables and full models can be found in the Appendix. All analyses were conducted in Stata 16.

Other factors underlying divisions of housework

The number of hours an individual worked was negatively associated with responsibility for routine housework tasks as well as the number of hours devoted to and the share of housework a person carried out. Additionally, the number of hours worked were negatively associated with being responsible for childcare. Similarly, longer spousal working hours were associated with a larger role in housework and childcare responsibilities, confirming the time availability thesis. The only exception to this was for mothers; the hours they devoted to housework were not significantly associated with the number of hours fathers worked. Mothers who worked evening, night, or weekend shifts did more hours of housework than those who worked day shifts, yet they were responsible for fewer routine housework tasks. Mothers with higher relative income were responsible for fewer routine tasks, assumed a smaller share and performed fewer hours of housework, and were less likely to be responsible for childcare. Mothers with higher levels of education did fewer hours of housework. Neither fathers' education levels nor their relative incomes influenced their contributions to housework and childcare. However, men with more highly educated spouses completed a larger share of housework, although this did not impact their level of involvement in childcare. More progressive gender role attitudes of both the respondents and their partners were indicative of more progressive divisions of labour for both housework and childcare. Households with younger children were more likely to report that childcare was shared or fathers took on greater responsibility for it, although this was less likely as families had more children. Older fathers also reported that they performed more hours and a larger share of housework, yet there was no such pattern in the mothers' data. Women in rural areas devoted more hours and performed larger shares of housework than those in urban areas, and men in rural areas also assumed less of these responsibilities. Mothers with chronic illnesses reported being responsible for fewer routine housework tasks and carrying out a smaller share of housework. Finally, compared to white British parents, Asian, Pakistani, and Bangladeshi mothers and fathers appeared to exhibit more traditional divisions of labour; parents of mixed and other ethnicities, however, were more likely to exhibit relatively equitable divisions of labour (see also, Kan and Laurie, 2018).

Appendix Table 1. The cross-tabulation of flexible working arrangements across gender (Wave 2)

		Work at home		Schedule control			
		Available but not use	Use	none	A little	Some	A lot
Of those who have Flexitime available but not use	Men	22%	19%	15%	11%	29%	46%
	Women	21%	5%	24%	21%	27%	28%
Of those who use Flexitime	Men	21%	17%	9%	10%	30%	51%
	Women	26%	13%	11%	16%	28%	46%

		Flexitime Available but not use	Use	Schedule control			
				none	A little	Some	A lot
Of those who have work from home available but not use	Men		49%	31%	0%	7%	57%
	Women		49%	44%	5%	16%	51%
Of those who work from home	Men		46%	27%	0%	7%	66%
	Women		20%	40%	3%	8%	78%

Of Men with (...) schedule control	Flexitime Available	Flexitime Used		Work at Home Available	Work at Home Used
None	12%		5%		0%
A little	14%		9%		4%
Some	21%		14%		12%
A lot	22%		16%		12%

Of Women with (...) schedule control	Flexitime Available	Flexitime Used		Work at Home Available	Work at Home Used
None	14%		5%		0%
A little	25%		14%		8%
Some	27%		20%		12%
A lot	22%		26%		17%

Appendix Table 2 Flexible Working, Routine Household Labour and Covariate Descriptives at Wave 2 of Understanding Society

	Total		Women		Men	
	N	%	N	%	N	%
Childcare (% Male spouse/share)	785	50%	377	46%	408	55%
Flexible Working Arrangements						
Flexitime Available (% Yes)	309	18%	173	20%	136	16%
Flexitime Used (% Yes)	216	13%	127	15%	89	11%
Work from Home Available (% Yes)	136	8%	75	9%	61	7%
Work from Home Used (% Yes)	96	6%	40	5%	56	7%
Schedule Control						
None	455	29%	283	34%	172	23%
A little	247	16%	142	17%	105	14%
Some	365	23%	175	21%	190	25%
A lot	510	32%	225	27%	285	38%
Covariates						
Ethnicity						
White British	3664	85%	1843	84%	1821	86%
Indian/Pakistani/Bangladeshi	227	5%	113	5%	114	5%
Black African/Caribbean	108	3%	55	3%	53	2%
Other Ethnicity	259	6%	144	7%	115	5%
Mixed Ethnicity	58	1%	34	2%	24	1%
Marital Status (% Married)	1482	88%	741	88%	741	88%
Limiting Long-standing Illness (% Yes)	112	7%	65	8%	47	6%
Highest Educational Qualification (% A levels or higher)	1196	71%	611	72%	585	69%
Housing Tenure (% Own)	228	13%	732	87%	732	87%
Urban or Rural (% Urban)	1332	79%	666	79%	666	79%
Shift Work (% Yes)	565	36%	296	36%	269	36%
Occupational Class						
High	799	49%	398	48%	401	50%
Low	835	51%	428	52%	407	50%
Spouse Use of Flexitime or Work at Home (% Yes)	281	17%	130	15%	151	18%
	Mean	SD	Mean	SD	Mean	SD
Routine Domestic Labour						
Total	1.49	1.47	2.48	1.28	0.43	0.75
Hours per Week	9.58	8.00	13.36	8.39	5.53	5.04
Share of Housework	0.50	0.29	0.70	0.20	0.30	0.20
Covariates						
Age	39.50	6.52	38.25	5.99	40.75	6.79
Cohabitation Duration	12.41	5.90	12.41	5.91	12.41	5.88
Weekly Hours Worked	34.85	13.05	27.76	12.00	41.94	9.82
Gender Roles Attitude Score	16.01	2.96	16.01	2.95	16.00	2.98
Age of Youngest Child	5.41	3.30	5.41	3.30	5.41	3.30
Number of Children	1.81	0.75	1.81	0.75	1.81	0.75

Logged Personal Relative Income 3.81 0.73 3.84 0.69 3.79 0.77

Appendix Table 3. Flexible Working across Occupational lines for men and women at Wave 2 of Understanding Society

	Men				Women			
	Man/prof		Other		Man/prof		Other	
	N	%	N	%	N	%	N	%
Flexible Working Arrangements								
Flexitime Available (% Yes)	86	21%	50	12%	87	22%	86	20%
Flexitime Used (% Yes)	53	13%	34	8%	74	19%	52	12%
Work from Home Available (% Yes)	52	13%	8	2%	54	14%	21	5%
Work from Home Used (% Yes)	49	12%	7	2%	27	7%	12	3%
Schedule Control								
None	45	12%	125	35%	108	28%	170	40%
A little	51	14%	50	14%	65	17%	77	18%
Some	106	28%	77	22%	97	25%	77	18%
A lot	173	46%	101	29%	121	31%	97	23%

Appendix Table 4. The association between flexible working and housework for mothers full table

	Routine			Hours of Housework			Share of Housework					
	Model 1-1			Model 1-2			Model 1-3					
	Estimates	95% Confidence Intervals		p-value	Estimates	95% Confidence Intervals		p-value	Estimates	95% Confidence Intervals		p-value
Flexitime Available (ref = No)												
Yes	0.02	-0.04	0.08	0.46	-0.54	-1.57	0.50	0.31	-0.02	-0.05	-0.002	0.03
Flexitime Used (ref = No)												
Yes	0.03	-0.04	0.11	0.41	0.09	-1.18	1.35	0.89	-0.03	-0.06	-0.003	0.03
Work from Home Available (ref = No)												
Yes	-0.07	-0.17	0.02	0.13	0.27	-0.80	1.33	0.62	0.02	-0.01	0.05	0.12
Work from Home Used (ref = No)												
Yes	-0.13	-0.26	-0.01	0.04	-2.05	-3.44	-0.66	0.004	-0.03	-0.06	0.01	0.14
Schedule Control (ref = None)												
A little	-0.04	-0.11	0.03	0.22	-0.09	-1.21	1.04	0.88	-0.01	-0.03	0.02	0.67
Some	0.002	-0.07	0.07	0.95	-0.23	-1.23	0.77	0.65	-0.01	-0.03	0.02	0.67
A lot	0.07	0.003	0.13	0.04	-0.01	-1.12	1.11	0.99	0.01	-0.01	0.04	0.24
Occupational Class (ref = Low)												
High	-0.04	-0.11	0.03	0.26	-0.14	-1.13	0.85	0.78	-0.01	-0.03	0.02	0.48
Age	-0.0004	-0.01	0.01	0.93	0.09	-0.05	0.23	0.20	-0.0003	-0.004	0.003	0.85
Ethnicity (ref = White British)												
Indian/Pakistani/Bangladeshi	-0.08	-0.22	0.06	0.26	3.30	1.25	5.36	0.002	0.04	-0.01	0.09	0.11
Black African/Caribbean	-0.05	-0.30	0.21	0.72	-0.12	-2.55	2.32	0.92	0.03	-0.05	0.10	0.51
Other Ethnicity	-0.06	-0.20	0.08	0.38	-0.50	-1.95	0.94	0.50	-0.02	-0.06	0.03	0.45
Mixed Ethnicity	-0.28	-0.55	0.005	0.05	5.41	-4.04	14.86	0.26	-0.02	-0.13	0.10	0.78
Cohabitation Status (ref = Cohabiting)												
Married	0.02	-0.08	0.13	0.65	1.39	-0.46	3.23	0.14	0.01	-0.02	0.04	0.59
Duration of Cohabitation	0.003	-0.004	0.01	0.47	0.07	-0.05	0.20	0.26	0.001	-0.002	0.004	0.63
Limiting Long-standing Illness (ref = No)												
Yes	-0.11	-0.22	-0.01	0.03	0.76	-1.13	2.65	0.43	-0.04	-0.07	-0.01	0.02

Highest Education Qualification (ref = GCSE or lower)												
A-levels or higher	-0.03	-0.10	0.04	0.37	-0.95	-2.18	0.27	0.13	-0.04	-0.07	-0.01	0.003
Housing Tenure (ref = Rented)												
Owned	0.03	-0.07	0.13	0.58	0.16	-1.10	1.42	0.80	0.00	-0.04	0.03	0.89
Urban/Rural (ref = Urban)												
Rural	0.05	-0.02	0.13	0.13	1.41	0.09	2.73	0.04	0.03	0.001	0.06	0.04
Normal Weekly Hours Worked	-0.01	-0.01	-0.01	0.00	-0.11	-0.15	-0.07	0.00	-0.004	-0.005	-0.003	0.00
Shift Work (ref = No)												
Yes	-0.06	-0.12	0.01	0.08	1.74	0.81	2.67	0.0002	0.01	-0.01	0.03	0.16
Gender Roles Attitudes Score	-0.01	-0.02	0.01	0.28	-0.29	-0.46	-0.12	0.001	-0.003	-0.01	0.001	0.09
Logged Relative Personal Income	-0.09	-0.13	-0.04	0.0001	-0.96	-1.82	-0.11	0.03	-0.03	-0.05	-0.01	0.01
Partner's Age	0.001	-0.01	0.01	0.88	0.01	-0.09	0.12	0.80	-0.002	-0.005	0.001	0.22
Partner's Normal Weekly Hours Worked	0.01	0.002	0.01	0.001	0.04	-0.01	0.09	0.10	0.003	0.002	0.004	0.00001
Partner Uses Flexitime or Work at Home FWA (ref = Not used)												
Used	-0.10	-0.18	-0.02	0.01	0.20	-0.85	1.24	0.71	0.003	-0.02	0.03	0.81
Partner's Highest Education Qualification (ref = GCSE or lower)												
A-levels or higher	0.06	-0.02	0.14	0.12	-0.36	-1.48	0.75	0.52	0.003	-0.03	0.03	0.85
Partner's Gender Roles Attitudes Score	-0.02	-0.03	-0.01	0.0001	-0.10	-0.27	0.06	0.22	-0.01	-0.01	-0.005	0.00
Age of Youngest Child	-0.002	-0.01	0.01	0.76	-0.24	-0.39	-0.08	0.002	0.001	-0.003	0.01	0.50
Number of Children in the Household	0.04	0.0002	0.08	0.05	1.34	0.63	2.04	0.0002	0.01	-0.01	0.02	0.26
Constant	1.69	1.29	2.10	0.00	19.24	13.16	25.32	0.00	1.07	0.91	1.23	0.00

Appendix Table 5. The association between flexible working and childcare for mothers full table

	Childcare			
	Model 1-4			
	Odds Ratios	95% Confidence Intervals		p-value
Flexitime Available (ref = No)				
Yes	1.19	0.76	1.86	0.45
Flexitime Used (ref = No)				
Yes	1.26	0.75	2.14	0.38
Work from Home Available (ref = No)				
Yes	1.29	0.71	2.36	0.41
Work from Home Used (ref = No)				
Yes	0.68	0.31	1.52	0.35
Schedule Control (ref = None)				
A little	1.21	0.72	2.04	0.47
Some	0.69	0.39	1.23	0.21
A lot	0.50	0.28	0.88	0.02
Occupational Class (ref = Low)				
High	1.16	0.66	2.03	0.61
Age	1.04	0.97	1.12	0.26
Ethnicity (ref = White British)				
Indian/Pakistani/Bangladeshi	4.43	1.61	12.19	0.004
Black African/Caribbean	1.49	0.24	9.37	0.67
Other Ethnicity	0.78	0.26	2.31	0.65
Mixed Ethnicity	3.28	0.39	27.70	0.28
Cohabitation Status (ref = Cohabiting)				
Married	1.53	0.76	3.08	0.23
Duration of Cohabitation	1.05	0.99	1.11	0.13
Limiting Long-standing Illness (ref = No)				
Yes	1.52	0.84	2.76	0.17
Highest Education Qualification (ref = GCSE or lower)				
A-levels or higher	0.62	0.34	1.15	0.13
Housing Tenure (ref = Rented)				
Owned	0.57	0.27	1.18	0.13
Urban/Rural (ref = Urban)				
Rural	0.81	0.45	1.48	0.50
Normal Weekly Hours Worked	1.11	1.08	1.14	0.00
Shift Work (ref = No)				
Yes	1.38	0.88	2.17	0.16
Gender Roles Attitudes Score	1.07	0.98	1.16	0.14
Logged Relative Personal Income	3.22	1.88	5.51	0.00002
Partner's Age	0.97	0.91	1.03	0.29
Partner's Normal Weekly Hours Worked	0.97	0.94	0.99	0.01
Partner Uses Flexitime or Work at Home FWA (ref = Not used)				
Used	0.91	0.57	1.43	0.67

**Partner's Highest Education Qualification
(ref = GCSE or lower)**

A-levels or higher	0.95	0.54	1.66	0.86
Partner's Gender Roles Attitudes Score	1.13	1.03	1.24	0.01
Age of Youngest Child	1.09	1.00	1.19	0.05
Number of Children in the Household	0.69	0.51	0.95	0.02
Constant	0.0001	0.00001	0.004	0.00

Appendix Table 6. The association between flexible working and housework for fathers full table

	Routine				House of Housework				Share of Housework			
	Model 2-1				Model 2-2				Model 2-3			
	Estimates	95% Confidence Intervals		p-value	Estimates	95% Confidence Intervals		p-value	Estimates	95% Confidence Intervals		p-value
Flexitime Available (ref = No)												
Yes	-0.01	-0.20	0.18	0.93	0.28	-0.38	0.94	0.40	0.02	-0.01	0.04	0.13
Flexitime Used (ref = No)												
Yes	-0.12	-0.37	0.13	0.35	0.04	-0.73	0.81	0.91	-0.003	-0.03	0.03	0.85
Work from Home Available (ref = No)												
Yes	0.07	-0.20	0.34	0.60	0.16	-0.58	0.89	0.68	0.01	-0.02	0.04	0.42
Work from Home Used (ref = No)												
Yes	0.05	-0.26	0.37	0.73	-0.44	-1.25	0.37	0.28	0.02	-0.02	0.05	0.30
Schedule Control (ref = None)												
A little	0.02	-0.22	0.26	0.87	-0.34	-1.17	0.48	0.42	-0.003	-0.03	0.02	0.83
Some	-0.06	-0.29	0.17	0.59	-0.63	-1.42	0.15	0.11	-0.004	-0.03	0.02	0.77
A lot	0.24	-0.003	0.48	0.05	-0.24	-1.04	0.56	0.56	0.004	-0.02	0.03	0.80
Occupational Class (ref = Low)												
High	0.05	-0.18	0.27	0.68	-0.95	-1.60	-0.30	0.004	-0.02	-0.05	0.0005	0.05
Age	0.002	-0.02	0.03	0.88	0.07	-0.01	0.15	0.07	0.003	-0.0003	0.01	0.08
Ethnicity (ref = White British)												
Indian/Pakistani/Bangladeshi	-0.28	-0.70	0.14	0.20	0.58	-0.78	1.93	0.40	-0.04	-0.08	0.01	0.12
Black African/Caribbean	-0.01	-0.78	0.76	0.98	1.20	-1.57	3.97	0.40	0.005	-0.08	0.09	0.91
Other Ethnicity	-0.25	-0.72	0.22	0.29	0.87	-0.37	2.11	0.17	0.04	-0.002	0.09	0.06
Mixed Ethnicity	0.06	-0.85	0.97	0.90	3.33	-1.26	7.93	0.15	0.06	-0.04	0.15	0.24
Cohabitation Status (ref = Cohabiting)												
Married	-0.16	-0.55	0.22	0.41	0.65	-0.22	1.52	0.14	-0.01	-0.04	0.02	0.60
Duration of Cohabitation	-0.002	-0.03	0.02	0.86	-0.01	-0.09	0.06	0.70	-0.0004	-0.003	0.002	0.77
Limiting Long-standing Illness (ref = No)												
Yes	-0.01	-0.29	0.27	0.94	0.54	-0.65	1.72	0.37	0.001	-0.04	0.04	0.96

Highest Education Qualification (ref = GCSE or lower)												
A-levels or higher	-0.15	-0.41	0.11	0.25	0.11	-0.67	0.88	0.79	0.01	-0.02	0.04	0.49
Housing Tenure (ref = Rented)												
Owned	-0.02	-0.33	0.29	0.90	0.31	-0.71	1.33	0.56	0.01	-0.02	0.05	0.47
Urban/Rural (ref = Urban)												
Rural	-0.22	-0.49	0.05	0.11	-0.55	-1.21	0.11	0.10	-0.03	-0.05	0.003	0.08
Normal Weekly Hours Worked	-0.02	-0.03	-0.01	0.0003	-0.08	-0.12	-0.05	0.00	-0.003	-0.005	-0.002	0.00
Shift Work (ref = No)												
Yes	0.19	0.01	0.37	0.04	0.52	-0.03	1.08	0.06	0.003	-0.02	0.02	0.77
Gender Roles Attitudes Score	0.04	0.01	0.08	0.02	0.25	0.14	0.35	0.00	0.01	0.01	0.01	0.00
Logged Relative Personal Income	-0.08	-0.22	0.06	0.25	-0.22	-0.69	0.25	0.35	-0.02	-0.03	0.0002	0.05
Partner's Age	0.002	-0.03	0.03	0.86	0.03	-0.05	0.12	0.45	-0.0002	-0.004	0.003	0.92
Partner's Normal Weekly Hours Worked	0.02	0.01	0.03	0.00	0.06	0.03	0.08	0.00	0.003	0.002	0.004	0.00
Partner Uses Flexitime or Work at Home FWA (ref = Not used)												
Used	0.03	-0.16	0.23	0.75	0.49	-0.17	1.16	0.15	0.02	0.002	0.05	0.03
Partner's Highest Education Qualification (ref = GCSE or lower)												
A-levels or higher	0.29	0.02	0.56	0.04	1.13	0.46	1.81	0.001	0.06	0.03	0.08	0.00001
Partner's Gender Roles Attitudes Score	0.02	-0.01	0.06	0.18	0.01	-0.10	0.11	0.89	0.004	0.00004	0.01	0.05
Age of Youngest Child	-0.01	-0.04	0.02	0.38	-0.08	-0.17	0.02	0.12	-0.001	-0.01	0.00	0.59
Number of Children in the Household	-0.13	-0.26	0.01	0.06	0.61	0.21	1.01	0.00	-0.004	-0.02	0.01	0.60
Constant	-1.59	-3.00	-0.17	0.03	-0.90	-5.05	3.24	0.67	0.06	-0.09	0.22	0.42

Appendix Table 7. The association between flexible working and childcare for fathers full table

	Childcare			
	Model 2-4			
	Odds Ratios	95% Confidence Intervals		p-value
Flexitime Available (ref = No)				
Yes	1.18	0.79	1.77	0.43
Flexitime Used (ref = No)				
Yes	1.50	0.91	2.45	0.11
Work from Home Available (ref = No)				
Yes	0.57	0.34	0.96	0.03
Work from Home Used (ref = No)				
Yes	0.51	0.27	0.95	0.03
Schedule Control (ref = None)				
A little	1.46	0.87	2.45	0.15
Some	0.90	0.56	1.47	0.68
A lot	1.07	0.64	1.79	0.81
Occupational Class (ref = Low)				
High	1.06	0.67	1.69	0.80
Age	0.97	0.92	1.03	0.31
Ethnicity (ref = White British)				
Indian/Pakistani/Bangladeshi	1.77	0.73	4.32	0.21
Black African/Caribbean	2.84	0.72	11.15	0.14
Other Ethnicity	2.60	1.12	6.03	0.03
Mixed Ethnicity	1.80	0.23	14.32	0.58
Cohabitation Status (ref = Cohabiting)				
Married	1.56	0.84	2.91	0.16
Duration of Cohabitation	1.03	0.97	1.08	0.37
Limiting Long-standing Illness (ref = No)				
Yes	1.33	0.70	2.53	0.38
Highest Education Qualification (ref = GCSE or lower)				
A-levels or higher	1.36	0.79	2.36	0.27
Housing Tenure (ref = Rented)				
Owned	0.97	0.51	1.84	0.92
Urban/Rural (ref = Urban)				
Rural	1.02	0.62	1.69	0.94
Normal Weekly Hours Worked	0.93	0.90	0.96	0.00
Shift Work (ref = No)				
Yes	1.50	0.99	2.27	0.05
Gender Roles Attitudes Score	1.16	1.07	1.25	0.0003
Logged Relative Personal Income	0.79	0.50	1.25	0.31
Partner's Age	1.04	0.98	1.10	0.23
Partner's Normal Weekly Hours Worked	1.05	1.03	1.07	0.00
Partner Uses Flexitime or Work at Home FWA (ref = Not used)				

Used	1.28	0.84	1.95	0.26
Partner's Highest Education Qualification (ref = GCSE or lower)				
A-levels or higher	0.85	0.52	1.38	0.51
Partner's Gender Roles Attitudes Score	1.08	1.00	1.16	0.06
Age of Youngest Child	1.09	1.01	1.18	0.02
Number of Children in the Household	0.87	0.65	1.16	0.33
Constant	0.13	0.01	3.17	0.21

Appendix Table 8. The association between flexible working and housework/childcare for mothers with occupational class interaction full table

	Childcare											
	Model 3-1				Model 3-2				Model 3-3			
	Odds Ratios	95% Confidence Intervals		p-value	Odds Ratios	95% Confidence Intervals		p-value	Odds Ratios	95% Confidence Intervals		p-value
Flexitime Available (ref = No)												
Yes	1.42	0.80	2.52	0.23	1.43	0.95	2.16	0.09	1.46	0.96	2.20	0.07
Occupational Class (ref = Low)												
High	1.80	1.04	3.11	0.04	1.53	0.94	2.50	0.09	1.50	0.74	3.06	0.26
Flexitime Avail*Occupational Class (Ref = No; Low)												
High occupational class with flexitime available	1.04	0.46	2.32	0.93								
Flexitime Used (ref = No)												
Yes	2.14	1.05	4.37	0.04	1.71	1.02	2.85	0.04	1.72	1.03	2.85	0.04
Flexitime Used*Occupational Class (Ref = No; Low)												
High occupational class who use flexitime	0.69	0.27	1.76	0.44								
Work from Home Available (ref = No)												
Yes	1.45	0.83	2.52	0.19	1.85	0.65	5.23	0.25	1.43	0.82	2.50	0.21
Work from Home Avail*Occupational Class (Ref = No; Low)												
High occupational class who have work from home available					0.73	0.22	2.43	0.61				
Work from Home Used (ref = No)												
Yes	0.99	0.47	2.08	0.97	0.10	0.02	0.52	0.01	0.94	0.44	2.00	0.88
Work from Home Used*Occupational Class (Ref = No; Low)												
High occupational class who use work from home					18.20	2.90	114.32	0.002				
Schedule Control (ref = None)												
A little	0.64	0.38	1.07	0.59	1.16	0.72	1.89	0.53	1.26	0.66	2.40	0.49
Some	0.37	0.22	0.62	0.09	0.64	0.38	1.08	0.09	0.46	0.23	0.90	0.02

A lot	1.03	0.97	1.10	0.0002	0.39	0.23	0.65	0.0003	0.36	0.18	0.70	0.002
Schedule Control*Occupational Class (Ref = None; Low)												
High occupational class with a little control									0.84	0.32	2.21	0.73
High occupational class with some control									1.79	0.67	4.80	0.25
High occupational class with a lot control									1.14	0.44	2.90	0.79
Age	1.03	0.97	1.10	0.33	1.03	0.97	1.10	0.33	1.03	0.97	1.10	0.33
Ethnicity (ref = White British)												
Indian/Pakistani/Bangladeshi	3.83	1.61	9.12	0.00	4.28	1.77	10.31	0.00	4.07	1.70	9.79	0.00
Black African/Caribbean	2.27	0.41	12.47	0.34	2.44	0.43	13.87	0.31	2.47	0.44	13.86	0.30
Other Ethnicity	0.97	0.36	2.60	0.95	0.96	0.35	2.61	0.93	0.97	0.36	2.63	0.96
Mixed Ethnicity	4.35	0.53	36.02	0.17	3.69	0.39	34.57	0.25	4.36	0.53	36.23	0.17
Cohabitation Status (ref = Cohabiting)												
Married	1.11	0.58	2.11	0.75	1.12	0.58	2.14	0.74	1.11	0.58	2.12	0.76
Duration of Cohabitation	1.03	0.98	1.09	0.25	1.03	0.98	1.09	0.23	1.03	0.98	1.09	0.24
Limiting Long-standing Illness (ref = No)												
Yes	1.31	0.73	2.33	0.37	1.34	0.75	2.41	0.33	1.30	0.73	2.31	0.38
Highest Education Qualification (ref = GCSE or lower)												
A-levels or higher	0.74	0.43	1.27	0.27	0.77	0.44	1.34	0.36	0.75	0.43	1.30	0.31
Housing Tenure (ref = Rented)												
Owned	0.73	0.38	1.41	0.36	0.75	0.39	1.47	0.40	0.73	0.38	1.41	0.35
Urban/Rural (ref = Urban)												
Rural	0.81	0.48	1.39	0.45	0.80	0.46	1.38	0.42	0.82	0.48	1.41	0.48
Normal Weekly Hours Worked	1.07	1.04	1.09	0.00	1.07	1.04	1.09	0.00	1.07	1.04	1.09	0.00
Shift Work (ref = No)												
Yes	1.14	0.76	1.72	0.51	1.16	0.77	1.74	0.49	1.17	0.78	1.76	0.45
Gender Roles Attitudes Score	1.12	1.03	1.21	0.01	1.12	1.04	1.21	0.005	1.12	1.04	1.21	0.004
Logged Relative Personal Income	1.58	1.06	2.35	0.02	1.59	1.07	2.36	0.02	1.58	1.07	2.35	0.02
Partner's Age	0.99	0.94	1.04	0.68	0.99	0.94	1.04	0.70	0.99	0.94	1.04	0.68
Partner's Normal Weekly Hours Worked	0.96	0.94	0.99	0.001	0.96	0.94	0.98	0.001	0.96	0.94	0.99	0.001

Partner Uses Flexitime or Work at Home FWA (ref = Not used)

Used	0.93	0.61	1.41	0.72	0.93	0.61	1.43	0.74	0.93	0.61	1.42	0.72
Partner's Highest Education Qualification (ref = GCSE or lower)												
A-levels or higher	0.89	0.54	1.47	0.65	0.90	0.54	1.49	0.69	0.89	0.54	1.47	0.65
Partner's Gender Roles Attitudes Score	1.15	1.06	1.25	0.001	1.16	1.07	1.26	0.0004	1.15	1.06	1.25	0.001
Age of Youngest Child	1.08	1.005	1.16	0.04	1.08	1.00	1.16	0.04	1.08	1.00	1.16	0.04
Number of Children in the Household	0.69	0.52	0.92	0.01	0.68	0.51	0.90	0.01	0.69	0.52	0.92	0.01
Constant	0.001	0.0001	0.02	0.00	0.001	0.00005	0.02	0.00	0.001	0.00005	0.02	0.00

Appendix Table 9. The association between flexible working and housework for fathers with occupational class interaction full table

	Routine											
	Model 4-1				Model 4-2				Model 4-3			
	Estimates	95% Confidence Intervals	p-value	Estimates	95% Confidence Intervals	p-value	Estimates	95% Confidence Intervals	p-value	Estimates	95% Confidence Intervals	p-value
Flexitime Available (ref = No)												
Yes	0.23	-0.10 0.57	0.17	-0.01	-0.25 0.23	0.91	-0.03	-0.27 0.21	0.82			
Occupational Class (ref = Low)												
High	0.18	-0.11 0.47	0.23	0.14	-0.13 0.41	0.32	0.19	-0.26 0.65	0.41			
FlexitimeA*Occupational Class (Ref = No; Low)												
High occupational class with flexitime available	-0.46	-0.91 -0.02	0.04									
Flexitime Used (ref = No)												
Yes	-0.02	-0.50 0.46	0.92	-0.12	-0.43 0.20	0.47	-0.15	-0.47 0.16	0.34			
FlexitimeU*Occupational Class (Ref = No; Low)												
High occupational class who use flexitime	-0.19	-0.78 0.40	0.53									
Work from Home Available (ref = No)												
Yes	0.10	-0.24 0.44	0.56	0.39	-0.21 0.99	0.20	0.08	-0.26 0.41	0.65			
Work from HomeA*Occupational Class (Ref = No; Low)												
High occupational class who have work from home available				-0.41	-1.08 0.26	0.23						
Work from Home Used (ref = No)												
Yes	0.07	-0.31 0.45	0.72	0.60	-0.15 1.36	0.12	0.07	-0.32 0.45	0.73			
Work from HomeU*Occupational Class (Ref = No; Low)												
High occupational class who use work from home				-0.69	-1.52 0.13	0.10						
Schedule Control (ref = None)												
A little	0.01	-0.27 0.30	0.93	0.02	-0.27 0.31	0.90	0.02	-0.37 0.41	0.91			
Some	-0.08	-0.37 0.21	0.58	-0.08	-0.37 0.21	0.58	0.18	-0.18 0.55	0.32			
A lot	0.24	-0.05 0.52	0.10	0.22	-0.06 0.51	0.12	0.19	-0.19 0.56	0.33			

Schedule Control*Occupational Class (Ref = None; Low)

High occupational class with a little control									-0.05	-0.63	0.52	0.85
High occupational class with some control									-0.54	-1.10	0.03	0.06
High occupational class with a lot control									0.005	-0.54	0.55	0.99
Age	0.001	-0.03	0.03	0.97	0.001	-0.03	0.03	0.94	0.001	-0.03	0.03	0.92
Ethnicity (ref = White British)												
Indian/Pakistani/Bangladeshi	-0.29	-0.78	0.20	0.24	-0.26	-0.75	0.23	0.29	-0.29	-0.78	0.19	0.24
Black African/Caribbean	-0.02	-0.84	0.79	0.95	0.03	-0.79	0.84	0.95	-0.01	-0.82	0.79	0.97
Other Ethnicity	-0.25	-0.79	0.29	0.37	-0.22	-0.77	0.32	0.42	-0.26	-0.80	0.28	0.35
Mixed Ethnicity	0.04	-0.97	1.04	0.94	0.06	-0.95	1.06	0.91	0.04	-0.98	1.05	0.94
Cohabitation Status (ref = Cohabiting)												
Married	-0.17	-0.55	0.21	0.38	-0.19	-0.57	0.20	0.34	-0.16	-0.54	0.22	0.40
Duration of Cohabitation	-0.0004	-0.03	0.03	0.98	-0.001	-0.03	0.03	0.93	-0.003	-0.03	0.03	0.85
Limiting Long-standing Illness (ref = No)												
Yes	0.02	-0.31	0.35	0.92	-0.01	-0.34	0.31	0.93	-0.01	-0.34	0.32	0.96
Highest Education Qualification (ref = GCSE or lower)												
A-levels or higher	-0.14	-0.45	0.16	0.35	-0.17	-0.47	0.13	0.27	-0.15	-0.45	0.15	0.32
Housing Tenure (ref = Rented)												
Owned	-0.04	-0.40	0.32	0.82	0.00	-0.35	0.36	0.98	-0.04	-0.39	0.32	0.84
Urban/Rural (ref = Urban)												
Rural	-0.23	-0.53	0.07	0.13	-0.20	-0.50	0.09	0.18	-0.24	-0.54	0.06	0.12
Normal Weekly Hours Worked	-0.02	-0.03	-0.01	0.003	-0.02	-0.03	-0.01	0.003	-0.02	-0.03	-0.01	0.003
Shift Work (ref = No)												
Yes	0.18	-0.02	0.39	0.08	0.20	-0.01	0.41	0.06	0.17	-0.04	0.38	0.10
Gender Roles Attitudes Score	0.04	-0.001	0.08	0.06	0.05	0.003	0.09	0.04	0.04	0.001	0.09	0.05
Logged Relative Personal Income	-0.09	-0.27	0.09	0.33	-0.09	-0.27	0.09	0.31	-0.07	-0.25	0.11	0.43
Partner's Age	0.004	-0.03	0.04	0.83	0.003	-0.03	0.04	0.84	0.004	-0.03	0.04	0.82
Partner's Normal Weekly Hours Worked	0.02	0.01	0.03	0.00	0.02	0.01	0.03	0.00001	0.02	0.01	0.03	0.00

Partner Uses Flexitime or Work at Home FWA (ref = Not used)

Used	0.04	-0.19	0.27	0.74	0.03	-0.19	0.26	0.77	0.03	-0.20	0.26	0.82
Partner's Highest Education Qualification (ref = GCSE or lower)												
A-levels or higher	0.29	-0.02	0.60	0.07	0.27	-0.03	0.58	0.08	0.27	-0.04	0.58	0.08
Partner's Gender Roles Attitudes Score	0.02	-0.02	0.07	0.26	0.02	-0.02	0.07	0.25	0.02	-0.02	0.07	0.25
Age of Youngest Child	-0.01	-0.05	0.02	0.44	-0.02	-0.05	0.02	0.43	-0.01	-0.05	0.02	0.48
Number of Children in the Household	-0.13	-0.29	0.02	0.08	-0.13	-0.28	0.02	0.10	-0.12	-0.27	0.03	0.13
Constant	-1.57	-3.18	0.03	0.05	-1.63	-3.24	-0.03	0.05	-1.69	-3.31	-0.07	0.04

Appendix Table 10. The association between flexible working and housework for mothers - *without schedule control in the model*

	Routine		Hours of Housework		Share of Housework		Childcare ^a	
	Estimates	p-value	Estimates	p-value	Estimates	p-value	Odds	p-value
Flexitime (ref= not available)								
Available	0.02	.47	-0.56	.28	-0.02**	.03	1.10	.67
Use	0.04	.24	0.07	.91	-0.03**	.05	1.08	.78
Work from Home (ref=not available)								
Available	-0.05	.24	0.27	.62	0.02*	.09	1.15	.63
Use	-0.10	.12	-2.04***	.00	-0.02	.21	0.53	.12
Constant	1.67***	.00	19.21***	.00	1.07***	.00	0.00***	.00
N	1,872		1,860		1,794		1,684	

*** p<.01, ** p<.05, * p<.10

Note: Random effects models for women with at least one child under the age of 12 (model controls for a list of variables – full model available upon request)

a: for childcare odds ratios are provided. Note here 1 indicates when fathers are involved in childcare.

Appendix Table 11. The association between flexible working and housework for fathers- *without schedule control in the model*

	Routine		House of Housework		Share of Housework		Childcare	
	Est.	p-val	Est.	p-val	Est.	p-val	Odds	p-val
Flexitime (ref=not available)								
Available	-0.00	.97	0.23	.50	0.02	.14	1.16	.46
Use	-0.10	.40	-0.00	.99	-0.00	.87	1.46	.13
Work from Home (ref=not available)								
Available	0.13	.34	0.15	.69	0.01	.38	0.56**	.02
Use	0.11	.49	-0.47	.26	0.02	.28	0.50**	.03
Constant	-1.68**	.02	-1.06	.62	0.06	.44	0.15	.25
N	1,815		1,805		1,774		1,539	

*** p<.01, ** p<.05, * p<.10

Note: Random effects models for men with at least one child under the age of 12(model controls for a list of variables – full model available upon request)

a: for childcare odds ratios are provided. Note here 1 indicates when fathers are (more) involved in childcare.

Appendix Table 12. The association between flexible working and childcare for mothers across occupational lines - *without schedule control in the model*

Mothers				
	Childcare			
	Odds	p-value	Odds	p-value
Higher occupation (ref=other)	1.70*	.06	1.43	.15
Flexitime (ref= not available)				
Available	1.34	.31	1.35	.15
Use	1.77	.11	1.43	.17
Flexitime avail*High occupation	1.03	.94		
Flexitime use*High occupation	0.70	.45		
Work from Home (ref=not available)				
Available	1.24	.43	1.58	.38
Use	0.73	.40	0.07***	.00
Work from home avail*High occupation			0.74	.61
Work from home use*High occupation.			21.05***	.00
Constant	0.00***	.00	0.00***	.00
N	1,856		1,856	

*** p<.01, ** p<.05, * p<.1

Note: Random effects models for women with at least one child under the age of 12 (model controls for a list of variables – full model in Appendix Table 6&7)

Here high occupational group includes Managers, Professionals and Associate Professionals and Technicians.

Appendix Table 13. The association between flexible working and division of housework for fathers across occupational lines- *without schedule control in the model*

Fathers				
	Routine housework			
	Estimates	p	Est	p
Higher occupation (ref=other)	0.20	.18	0.17	.22
Flexitime (ref= not available)				
Available	0.23	.18	-0.01	.94
Use	-0.03	.90	-0.11	.51
Flexitime avail*High occupation	-0.44*	.053		
Flexitime use * High occupation	-0.16	.60		
Work from Home (ref=not available)				
Available	0.16	.36	0.45	.14
Use	0.12	.52	0.68*	.08
Work home avail*High occupation			-0.42	0.22
Work home use*High occupation			-0.72*	0.09
Constant	-1.67**	.04	-1.72**	.04
N	1,815		1,815	

*** p<.01, ** p<.05, * p<.1

Note: Random effects models for women with at least one child under the age of 12 (model controls for a list of variables – full model in Appendix Table 6&7)

Here high occupational group includes Managers, Professionals and Associate Professionals and Technicians.

ⁱ In the paper, for simplicity, workers in managerial and (associate) professional occupations (ISCO 1-3) are considered 'higher-income/skilled' and those in ISCO 4-9 occupational levels are considered 'lower-income/skilled' occupations. We use this term as jobs in lower occupational levels do not necessarily entail less skills, but can be better distinguished to the low pay.