

Work flexibility and divisions of unpaid work
in UK dual-earner parent couples: a mixed
methods study

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List of Abbreviations

AIC: Akaike Information Criterion

APL: Additional Paternity Leave

BIC: Bayesian Information Criterion

FWA: Flexible Working Arrangements

HMRC: HM Revenue and Customs

ICC: Intra-class Correlation Coefficient

LCA: Latent Class Analysis

LL: Log Likelihood

OR: Odds Ratio

RMLCA: Repeated Measures Latent Class Analysis

SPL: Shared Parental Leave

Abstract

The UK's gender pay gap persists, part of which is attributable to unequal divisions of paid and unpaid work (housework and childcare) between mothers and fathers. To accomplish gender equality in work and family roles it is important that both parents are able to make work changes so that they can be involved in family life and work-family policies play a key part in this. This research used a mixed methods design that incorporated quantitative and qualitative techniques to explore the impact of one of these policies, the right to request flexible working.

The research was conducted before the Covid-19 pandemic. It used longitudinal data (2010-19) from the UK Household Longitudinal Study and semi-structured interview data from 2019. First the study investigated how fathers' use of flexible working changed in comparison to mothers over the period 2010-2019. Next it examined patterns in how dual-earner parent couples divide housework and childcare and to what extent this was related to worker-led flexibility and other factors.

Results suggest that small increases in the use of worker-led flexible working over the period 2010-19 appear to be mainly due to increases in the use of home working at the highest job levels and that UK fathers have changed very little in comparison to UK mothers in their use of reduced hour flexible working over the same period. However, dual-earner parent couples in which the father does work flexibly (particularly part-time work and flexi-time) may be more likely to have more equally-shared divisions of the housework and childcare as opposed to mother-dominant divisions. Other factors operate alongside work flexibility to inform more equally-shared divisions of unpaid work and may include mothers' full-time hours, her earnings being the same or more than her partner and time out of paid work for the father after the birth of a child. More equally-shared divisions of the physical aspects of unpaid work may also inform sharing of its more unseen, cognitive aspects.

Policy-makers should focus on developing effective ways of encouraging more fathers to work flexibly and to take time out of paid work after the birth of a child. This focus must be on reaching fathers in lower occupational classes and household income brackets who, along with mothers, are less likely to have access to worker-led flexibility or paid parental leave. While the recent pandemic is widely regarded as a catalyst for change in the world of flexible working, it has also highlighted inequalities between certain groups with regard to access to it, particularly home working. Without intervention these inequalities are likely to deepen.

Declaration

No portion of the work referred to in the thesis has been submitted in support of an application for another degree or qualification of this or any other university or other institute of learning.

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Preface

My experience of the motherhood pay gap is personal and I must confess that before having children I had given it little thought. After completing my undergraduate degree in 1998 I joined a graduate scheme in a professional services firm which is where I met Paul, my now husband. In fact, we joined the firm in the same month with the same starting salary. 15 years on and after three maternity leaves and part-time working my salary had plateaued in comparison to Paul's and it was becoming difficult for us both to work in managerial, client-facing roles. It was then that I took a career break to study for an MSc in Human Resource Management at Manchester Metropolitan University. During this period of study my interest in the gender pay gap developed, I particularly enjoyed the research elements of my studies and following completion I applied to do a PhD at the University of Manchester.

I was awarded a PhD CASE studentship by the Economic and Social Research Council through the North West Doctoral Training Centre. My CASE partner is Close the Gap, a Scottish charity which works with policymakers, employers and employees to influence and enable action to address the causes of women's inequality at work. In the year to September 2017 I completed a second MSc in Social Research Methods and Statistics at the University of Manchester as part of my studentship program and following this I started research on this thesis.

Over this time I have been based in the Social Statistics department within the School of Social Sciences. Along with work on my thesis I have been involved in a number of other research and teaching projects both within the department and at Alliance Manchester Business School. I also spent three months working in the Families Analysis team at the Department of Work and Pensions via a PhD secondment scheme. My research interests lie in work and inequalities over the life course and the role of policy and employers in this regard. I believe that both quantitative and qualitative research approaches are key to better understanding these issues. I am a member of the Work and Equalities Institute at the University of Manchester and of the Chartered Institute of Personnel and Development.

1 Introduction

This study investigates how the use of flexible working arrangements in the UK changed over the period 2010-19 with a focus on changes among mothers and fathers. It examines the link between the work flexibility of dual-earner parent couples and their divisions of unpaid work (housework and childcare). This chapter describes the rationale for conducting the study in light of the UK's current policy focus on equality and diversity, particularly with regard to the aim to reduce the gender pay gap. It introduces the research questions that are asked, the methods used and an overview of the thesis structure.

1.1 The UK's gender pay gap

Closing the UK's gender pay gap has been a key policy focus for a number of years which forms part of wider policy initiatives aimed at achieving equality and diversity in UK workplaces and society generally.

The business case for such policies emphasises the economic advantage of increased workforce diversity both at the macro and organisational levels. For example, the increase in tax and national insurance revenue to be obtained from a growth in female labour market participation and pay (Government, 2013; Close The Gap, 2016). Indeed, a number of studies have estimated the positive effects that increased female labour market participation could have on UK GDP if women engaged in employment at the same level as men in the UK (Aguirre, 2012; Woetzel *et al.*, 2015; Stielow *et al.*, 2021). At the organisational level, research has found positive effects of gender equality at company board level on various company performance measures such as employee engagement, productivity, net profit and company value in a range of country contexts (Campbell and Mínguez-Vera, 2008; Badal and Harter, 2014; Ntim, 2015). These positive effects are linked to the market insight, innovation and problem solving that gender diversity brings (Ali, Kulik and Metz, 2011) thus helping organisations compete in an increasingly global market. Increased female labour market participation is also likely to mean that employers are better able to address skill shortages in certain sectors (Leitch, 2006).

The moral case for such policies is linked to considerations of equity which are enshrined in law (Equal Pay Act, 1970; Equality Act, 2010) but also in ethics and social responsibility. This is reflected in the increased importance of corporate social responsibility for organisations and the expectation of employees and other stakeholders that corporate aims will go beyond a solely economic focus (Kachouri, Salhi and Jarboui, 2020).

The gender pay gap is the difference between average hourly earnings (excluding overtime) of men and women as a proportion of men's average hourly earnings (excluding overtime) (White,

2021). It accounts for the average difference across all jobs in the UK and is not a measure of the difference between men and women doing the same job (which is a separate issue; one of equal pay for equal work). Research has measured the UK's gender pay gap and found broadly similar results using different data. While progress in reducing the pay gap has been made over the past 25 years there is more to be done. In 1997, the all-employee median pay gap was 27.5%, this had reduced to 20.2% by 2011 and in April 2021 it was measured at 15.4% (White, 2021).

The introduction of the gender pay gap reporting regulations in 2017 (Equality Act, 2010) requiring UK organisations with over 250 employees to publish their pay gap information each year helped renew the focus on closing the UK's gender pay gap. Such reporting requirements for smaller organisations are expected to be introduced in the future together with data on ethnicity and disability pay gaps. This has led to a number of recent research reports (Breach and Li, 2017; Equality and Human Rights Commission, 2017; OECD, 2017; Olsen *et al.*, 2018) which measure the pay gap and recommend various steps to reduce it. Media coverage directly in relation to pay such as high profile coverage of gender and ethnicity pay gaps at the BBC (Ruddick and Grierson, 2017) has also highlighted the issue. Such coverage, which was particularly prolific at the time of the first deadline for publishing gender pay information in April 2018, revealed large gender pay gaps in a number of high profile organisations. This has re-ignited the debate about why these gaps exist and what action should be taken.

There are multiple causes of the UK's gender pay gap (Olsen and Walby, 2004) however this study focuses on those that are linked to motherhood (Grimshaw and Rubery, 2015). The information published to date (Government Equalities Office, 2018a) clearly shows an under-representation of women at management level and in senior grades, and their concentration in the lower grades, in many organisations. This is attributed to the large numbers of women who work part-time following a period of maternity leave or after taking time away from paid work when their children are young (Lyonette, 2015; Close the Gap, 2018). Part time work is often low quality and low paid and there tends to be a lack of quality part-time and other flexible work at the higher levels of an organisation (Timewise, 2020). Many well-qualified women have accepted lower paid and lower status part-time jobs in order to balance paid work and care (Equality and Human Rights Commission, 2009; Lyonette, 2015). In contrast, when men become parents they tend to maintain their full-time paid working hours and in some cases increase them (Schober, 2013; Landivar, 2015; Langner, 2015).

These patterns of part-time work for mothers and full-time work for fathers in part explain the UK's gender pay gap; when comparing the hourly pay of full-time men and full-time women

only, the median gender pay gap was 7.9% in April 2021 compared to an all-employee gap of 15.4% (White, 2021).

Unequal divisions of paid work between mothers and fathers in the UK operate alongside unequal divisions of their unpaid work. While paid or economic work is work performed in exchange for a wage, salary or other form of payment, unpaid work is household labour which, although productive, is not performed in exchange for payment when performed in one's own household. It may include the physical labour of housework, cooking, shopping and childcare as well as its cognitive elements (Daming, 2019). On average, mothers in the UK spend more time on unpaid work than fathers after having children (Schober, 2013) and these divisions have changed very little over time despite the increased labour market participation of women (Crompton, Brockmann and Lyonette, 2005; Kan and Laurie, 2016).

1.2 Research focus

Overarching this study is a feminist research approach, the purpose of which is driven by a desire for progress towards gender equity in (paid) work and at home. This takes the view that key to achieving greater equality in the workplace and therefore in closing the gender pay gap relating to motherhood is the more equal sharing of the paid and unpaid work between mothers and fathers (Folbre, 1994; Crompton, 1999; Ciccio and Bleijenbergh, 2014). This view has also been reflected in UK policy (Equality and Human Rights Commission, 2017; Government Equalities Office, 2018b). While the focus in this thesis is on mothers and fathers and their divisions of paid and unpaid work it is recognised that this is only one part of the story of gendered life-course experiences (Wildman, 2020).

The enduring patterns of unequal divisions of the paid and unpaid work of UK mothers and fathers are explained by a number of factors that are presented and discussed in detail in the following chapter. Chapter 2 introduces a pluralistic theoretical framework that recognises the importance of structures and institutions (e.g. legal frameworks, organisations) in informing couples' domestic divisions of labour but also recognises some of the economic and sociological factors that are specific to couples/individuals and that may enable or constrain the extent to which they are able to challenge these structures. This study focuses on the potential of UK policy (which includes legislative frameworks and the extent to which organisations implement these) to alleviate constraints in paid work and to promote further change in terms of the convergence of the unpaid work of mothers and fathers, i.e. it considers the relationship between macro level factors and the economic and sociological factors at the micro level.

The study is divided into two phases.

1.2.1 Research questions – phase one

The UK's framework of work-family policies is introduced in Chapter 2. This study focuses on the UK's flexible working policy. A right to request flexible working was first introduced in the UK in 2002 and gave employees with a child aged five or under (18 or under for disabled children) the statutory right to request to work flexibly (*The Employment Rights Act, 1996*). This right was then extended in 2007 to include employees caring for sick or disabled adult household members and parents of children under the age of 17 in 2009 (Tipping and Perry, 2012). It was extended to all employees with more than 6 months' service (regardless of caring responsibilities) on 30 June 2014.

Despite the initial right to request being aimed at both mothers and fathers, research has found that it tends to be associated with part-time working mothers (Atkinson and Hall, 2009; Cook *et al.*, 2021) and has suggested the existence of a flexibility stigma that may be linked to negative career consequences (Chung, 2020). The extension of the right to request flexible working to all qualifying employees in 2014 recognised these gendered patterns and was informed by a desire to move the UK towards to a work environment where quality, flexible work is the norm at all levels of an organisation and away from a work culture that may stigmatise those who use it (Pyper, 2015). Increasing the use of flexible working for all (including fathers) in the UK therefore has the potential to help create a household context where both mothers and fathers have a greater number of options available to them when deciding how to combine their paid work and family responsibilities. Past studies have tended to be cross-sectional in nature or have not taken a gendered approach therefore the first phase of this study explores the impact of this extension by asking:

- How has fathers' use of flexible working changed in comparison to mothers over the period January 2010 to December 2019?
- What evidence exists to suggest that the use of flexible working is becoming more widespread in the UK?

1.2.2 Research questions - phase two

Increasing the use of flexible working also has the potential to lead to the more equal sharing of the paid and unpaid work between mothers and fathers which is seen to be key to achieving greater equality in the workplace and therefore in closing the gender pay gap relating to motherhood. For example, a father who uses flexible working to organise his paid work around family may do more housework and childcare. In turn, his partner may increase her participation

in paid work if her partner is doing more of the unpaid work or if a wider range of flexible work options, including quality part-time work, are available to her.

Few UK studies have explored the impact of worker-led flexibility on divisions of the unpaid work of couples and the studies that have done so have tended to focus on divisions of childcare only. The second phase of this study therefore focuses on the relationship between the use of work flexibility and the housework and childcare of UK dual-earner parent couples. It asks:

- In modelling the unpaid work of UK dual-earner parent couples what patterns can be identified in how these couples divide the childcare and housework?
- To what extent do different types (and combinations) of work flexibility for both parents in UK dual-earner parent couples account for these divisions, particularly those that are more equally-shared?
- What insights can the experiences of mothers and fathers in UK dual-earner couples add to existing theories of work flexibility and how couples negotiate work-life boundaries, the operation of other macro and micro level factors alongside this and the associated outcomes for couples' divisions of unpaid work?

This phase of the study focuses on the divisions of unpaid work in mixed-sex couples only; same-sex couples have been found to have different gender dynamics and divisions of labour (Evertsson and Boye, 2018) and difficulties in modelling such couples alongside mixed-sex couples mean that the scope of this study cannot do justice to the unique issues that same-sex couples face.

1.3 Methodology

The research questions in phase one of this study were answered by analysing data from the Understanding Society household longitudinal survey (University of Essex, 2021) using a sample of UK employees (N=7,428) who answered questions about the availability and use of flexible working arrangements at their main workplace over the period 2010-2019. Four different multi-level longitudinal models distinguished between different types of flexibility and allowed differences between fathers and mothers and other groups to emerge.

The research questions in the second phase of the study were answered by analysing secondary survey data and primary interview data. The survey data came from the Understanding Society household longitudinal survey (University of Essex, 2021) and used a sample of UK dual-earner couples (N=3,851) who answered questions about their divisions of housework and childcare.

The interview data came from interviews conducted with mothers and fathers (N=19) in dual-earner couples in Scotland which took place during the period April to October 2019. These methods drew on the advantages of a mixed methods approach which gave a more multi-dimensional perspective of reality (Duncan, 2007) that was able to take into account both the patterns shown in the representative survey data and the different contexts and experiences of dual-earner couples using the interview data. This gave meaning and understanding to the results of the quantitative analysis (Anderson, 2009) and went further in allowing issues to be explored that were not possible using the survey data.

1.4 Structure of the thesis

Chapter 2 discusses the economic and sociological factors at the micro level of the individual and family which have been found to explain the divisions of paid and unpaid work of couples, drawing on theory and the empirical research. It also presents factors at the macro, i.e. country and organisational, level including the role of UK work-family policy in this regard. The determinants and outcomes of worker-led flexibility are considered followed by the literature that has linked worker-led flexibility to the unpaid work of parent couples.

Chapter 3 describes and justifies the choice of methodology and methods adopted for the research study. It is divided into two sections which cover how the research methods were designed to answer the research questions in the two phases of the study. For the quantitative data this includes detailed information regarding the choice of dataset, how the samples were selected, the survey questions that were used in operationalising the measures and how the analytical models were built. For the qualitative data this includes details of how the interview participants were recruited, the interview design, the sample characteristics and how the interview data were analysed.

Chapter 4 presents descriptive statistics regarding the changes in the availability and use of flexible working over the period 2010-2019, distinguishing between the availability of formal and informal flexibility, the use of worker-led flexibility and other types that are less clearly worker-led. Secondly, the results of the analytical models are presented. These models allow comparisons in the use of flexible working to be made between different groups over the period 2010-19 and suggest there is little evidence to suggest that the use of flexible working is becoming more widespread in the UK (in the period 2010 to 2019) both when looking at changes in its use by fathers compared to mothers and when comparing other groups.

Chapters 5 and 6 presents the results from the second phase of the study. The first section of Chapter 5 presents the results of the quantitative analysis which modelled the unpaid work of

UK dual-earner parent couples using the survey data. The second section focuses on the relationship between work flexibility and divisions of unpaid work drawing on the combined strengths of the quantitative and qualitative analysis. The findings suggest that couples in which the father uses work flexibility may be more likely to have more equally-shared divisions of the housework and childcare as opposed to mother-dominant divisions. Chapter 6 presents additional insights from the qualitative data suggesting that couples in which the father takes time out of paid work after the birth of a child may have more equally-shared divisions of unpaid work. This chapter also highlights the cognitive aspects of the unpaid work of dual-earner couples whereas the quantitative data was only able to measure the physical aspects.

The final Chapter 7 incorporates a discussion of the findings of Chapters 4, 5 and 6 in relation to the previous literature and highlights the empirical, theoretical and methodological contribution of this thesis to knowledge. It discusses the findings in the light of the Covid-19 pandemic which is widely regarded as a potential catalyst for change in the flexible working culture of the UK (Hupkau and Petrongolo, 2020; Flexibility Works, 2021; Parry *et al.*, 2021) and the associated recommendations for policy and practice. It also highlights the limitations of the study and identifies areas for future research.

2 Literature review

The previous chapter provided background to some of the causes of the UK's gender pay gap and established the relevance of the domestic division of labour (i.e. the paid and unpaid work of parent couples) and work flexibility to this. First, this chapter presents the research that has measured divisions of labour in mixed-sex UK parent couples. It discusses the economic and sociological factors at the micro level of the individual and family which have been found to explain these divisions, drawing on theory and the empirical research. It also discusses factors at the macro, i.e. country and organisational, level including the role of UK work-family policy in this regard. Next, the UK's parental leave and flexible working policy framework is introduced with a focus on worker-led flexibility. The determinants and outcomes of worker-led flexibility at both the micro and macro level are presented with reference to the recent research. Finally, the literature that has linked worker-led flexibility to the unpaid work of parent couples is considered in detail. This is used to inform the study's research questions and identify the gap in knowledge that this study seeks to address.

2.1 Divisions of labour in UK mixed-sex parent couples: the current position

This study focuses on mixed-sex, cohabiting couples which is consistent with the majority of the research on work-family policies and the division of labour within couples (Thébaud and Pedulla, 2022). The needs of other couples falling outside this definition are clearly important in work-family research however the limited scope of this study meant that it was not possible to give them the attention they deserve. For example, same-sex couples have been found to have different gender dynamics and divisions of labour (Evertsson and Boye, 2018) and difficulties in modelling such couples alongside mixed-sex couples mean that the scope of this study cannot do justice to the unique issues that same-sex couples face. It is recognised that separated or divorced couples who share the care of their children divide the unpaid work to a certain extent, however, single-parents are very different to cohabiting couples in terms of the time they have been found to spend on paid and unpaid work (Kalenkoski, Ribar and Stratton, 2005). There are also particular difficulties in tracking both parents in such households which may be further complicated in the event of re-partnering (Bryson, 2017).

The domestic division of labour refers to the way in which the paid and unpaid work is divided within a couple (Crompton, Brockmann and Lyonette, 2005; Kan, 2008a). Paid work is work performed in exchange for a wage, salary or other form of payment and may be in the form of employment (permanent or temporary, full-time or part-time) or self-employment. Unpaid work is household labour which, although productive, is not performed in exchange for payment

when performed in the couple's own household. It may include cleaning, cooking, childcare, household management and repairs, amongst other things, but may also involve caring for elderly relatives (McMunn *et al.*, 2020). In addition to more physical, bounded elements of unpaid work, it is argued that "true understanding of gender inequality in the household sphere, however, requires consideration of physical, emotional, and cognitive labour" (Daming, 2019, p. 22). Dean *et al.* (2022, p. 2) also refer to this cognitive labour which includes "the thinking, planning and organising of family members".

In mixed-sex couples with dependent children, the focus of this research, it is mainly the mother who makes changes to her paid work after the birth of a child. Mothers tend to reduce their paid work hours to take on the majority of the unpaid work in the household while fathers' paid hours tend to remain relatively stable (Landivar, 2015). This means that, generally speaking, mothers do more unpaid work than fathers and fathers do more paid work than mothers; this has been found to be the case in the UK and in many other countries (Beauregard and Lup, 2020; McMunn *et al.*, 2020).

The paid working time of UK mothers has gradually increased over time. Mothers historically ceased their participation in paid work after having their first child (if this had not already ended once they were married) with fathers continuing in paid work; so-called male solo breadwinner households (Crompton, 1999). However, in the UK currently the majority of parent couples are now dual-earners and patterns in the past 20 years have shown a shift towards mothers working longer hours. Connolly *et al.* (2016) used representative labour force survey data finding that, in the UK in 2001, the most common paid working pattern (37% of dual-earner couples) was a father in full-time work and a mother in part-time work (so-called standard 1.5 households). Over the period 2001 to 2013 the proportion of parents in standard 1.5 households decreased to 31% however there was a statistically significant growth in dual full-time couples (26% to 31%) and in non-standard working patterns (8% to 12%). These non-standard patterns include female breadwinner households, those where the mother is full-time/father part-time and those where both are part-time.

In turn there have been absolute increases in the amount of unpaid work done by UK fathers. Using survey data covering the period 1994-2002 an increase was found in the proportion of fathers sharing the unpaid work in couples in which the mother works full-time (Crompton, Brockmann and Lyolette, 2005). Further, Sullivan (2013) analysed the housework and childcare time of men and women in dual-earner couples using UK time use data covering the period 1975

to 2003. All fathers in dual-earner couples, albeit with differences by educational attainment and type of unpaid work, increased the time they spent on childcare and housework over the period.

However, as mothers in dual-earner couples also increased their amount of childcare time over the same period these increases may be due to changes in the nature and meaning of childcare such as interactive childcare and intensive parenting strategies particularly among more highly-educated couples (Sullivan, 2013) rather than as a result of fathers taking on more unpaid work because their partners are spending more time in paid work, for example. Indeed, increases in paid work for mothers and unpaid work for fathers have not yet converged to mean that mothers and fathers in UK couples are doing broadly the same amount of paid and unpaid work, i.e. despite absolute increases in the paid working time of mothers and in the unpaid working time of fathers, a gap remains.

The average paid working time of UK mothers does not yet match the paid working time of UK fathers who on average tend to work longer hours. Connolly et al (2016) also found that, on average, full-time working fathers worked 45 hours a week compared to 39 hours a week for full-time working mothers. In fact, the UK has been found to have one of biggest differences in paid working hours between dual-earner couples compared to countries such as the US, Australia and many European countries (Landivar, 2015).

In terms of unpaid work, using 2014-15 UK time use data, Hupkau and Petrongolo (2020) reported an average difference of 9 hours a week in the childcare time spent by mothers compared to fathers. Housework gaps between men and women are well-established and women have been found to be doing approximately 7 to 8 hours more than men in couple households (Kan and Laurie, 2018; Hupkau and Petrongolo, 2020) although gaps between mothers and fathers in dual-earner parent households are not as well-documented. Research following the Covid-19 pandemic also reflects these average differences in childcare and housework. A widening of the differences in some households was found however there was a narrowing in others (Andrew *et al.*, 2020) with some suggestion that fathers became more involved in childcare (Hupkau and Petrongolo, 2020). The longer-lasting impact of the pandemic on couples' divisions of unpaid work is currently unclear.

The studies mentioned above do not measure the cognitive aspects of the unpaid work, i.e. the thinking, planning and organising of family members which may become what has commonly been referred to as a “mental load” (Emma, 2017) when it includes an emotional element. That is, the enduring nature of caring may lead to “endless rumination and worry” which may negatively affect parents', particularly mothers, paid work experiences (Dean et al, 2021, p.2) and

as such (along with their physical unpaid work) the amount of time they feel they have available to dedicate to paid work.

In summary, studies show that there have been absolute increases in UK mothers' paid work and in UK fathers' unpaid work over the past 50 years. Divisions of paid and unpaid work within couples may be converging but slowly; "stuttering social change... a slow drip of change" (Sullivan, Gershuny and Robinson, 2018, p. 274). Further convergence, as discussed in Chapter 1, is important for further closing the UK's gender pay gap and achieving a more "equal sharing of rights, responsibilities and work within the family pointing towards a more egalitarian vision of society as a whole" (Folbre, 1994, p. 103). This leads to further consideration of the micro and macro level factors that the research suggests may be preventing further convergence and to a discussion of what policy initiatives might help expedite this.

2.2 What explains divisions of labour within couples?

2.2.1 Micro level factors are both economic and sociological

Theories of the factors explaining the domestic division of labour within couples are well-developed and fall into two main groups: economic and sociological. There is extensive evidence supporting both groups of theories in the empirical research and it is generally accepted that both economic and sociological factors work together to influence how couples divide their paid and unpaid work (Grimshaw and Rubery, 2015).

Economic theories tend to assume rationality and efficiency (Harkness, 2008); if one member of a couple earns more in paid work than their partner, after having children it makes sense for the family (to maximise economic efficiency and family welfare) for that person to specialise in paid work and for their partner to specialise in unpaid work (Becker, 1965). In turn, time availability theories suggest that more time and energy spent by the couple member who specialises in paid work means they have less time and energy to spend on unpaid work, and vice versa for their partner (Greenstein, 2000). These theories are not gendered and in theory either the mother or father may specialise in paid work or unpaid work, the implication being that couples will have broadly similar total paid and unpaid working hours based on the fair division of duties.

Economic theories have been criticised for their failure to take account of gender (Walby, 1990). Indeed, Sayer et al (2009) compared the total work time (i.e. paid and unpaid) for both men and women in couples in the US and Australia using representative time diary data. They included a wide definition of primary and secondary unpaid work e.g. where the unpaid work is combined with leisure such as the primary activity of watching TV at the same time as watching a child. They found that in both countries, when women are employed full-time their total work time is

more than men, especially when there are also young children in the household (where they found up to a 7 hour weekly difference). The authors argue that such a situation not fully explained by economic theory which would expect time use patterns to adjust and instead is more in line with sociological theory due to conformity to gendered norms from culture and gendered institutions (Sayer et al, 2009) and that this suggests a second shift (Hochschild, 1989) for full-time working women.

UK quantitative studies show that a mixture of economic and sociological factors explain the domestic division of housework and childcare in couples (Crompton, Brockmann and Lyonette, 2005; Kan, 2008a; Schober, 2013; van der Lippe, Treas and Norbutas, 2018). Kan (2008) pooled representative UK data from married and cohabiting mixed-sex couples in the British Household Panel Survey covering the period 1993 to 2003, examining the competing hypotheses of whether housework hours are determined by an individual's economic resources relative to their partner's or determined by the influence of gender role attitudes. Based on economic bargaining theories if one member of the couple has a higher level of earnings in paid work relative to their partner the stronger their bargaining power and the less time they will spend on housework (Lundberg and Pollak, 1996). However, based on sociological theories such as the "doing gender" approach (West and Zimmerman, 1987) and identity theory (Stets and Burke, 2000) the amount of time spent on housework may be influenced by the gender identities of both partners. For example, traditional attitudes of women may lead to more time spent by them on housework and non-traditional attitudes of men may lead to more time spent by them on housework. Kan's (2008) results suggested that an individual's relative economic resources had a stronger effect on reducing housework hours than their gender role attitudes. However, for women (but not men) holding traditional role attitudes, the number of housework hours were reduced to a lesser extent, i.e. traditional gender-role attitudes may diminish the association between economic independency and housework hours.

Qualitative research studies also support these findings (Himmelweit and Sigala, 2004; Lyonette and Crompton, 2015; Chesley, 2016; Medved, 2016b; Faircloth, 2021). Himmelweit and Sigala (2004) interviewed 34 mothers (a mixture of full-time, part-time and non-working) of pre-school children in the UK. They investigated their decision-making with respect to the care of their pre-school children and their own paid employment. Aspects of a mother's identity were found to be a "powerful internal mechanism that exerts control over women's decisions in a similar way to external constraints" (Himmelweit and Sigala, 2004, p. 7) regarding how much they wanted/were able to participate in paid work. While some women were in the majority earning position compared to their male partners, they indicated that they would not have been happy

for their partner to stay at home and care for the children. These identities varied between mothers and operated alongside external constraints to paid employment such as a lack of acceptable childcare (e.g. affordability, type, location) or work flexibility for themselves or their partners.

Fathers may be more likely to take on responsibility for the childcare than the housework in couples in which the mother has the higher relative earnings or works more hours than the father. Lyonette and Crompton (2015) interviewed 36 women and 12 men from UK households with dependent children where the mother worked full-time. In the sample, which included a range of occupational groups, some women earned more, others earned approximately the same and some earned less than their male partners. They found that while men whose female partners earned more than they did (i.e. support for the gender neutral economist explanation) and men whose partners worked longer hours (i.e. support for the time availability explanation) carried out more unpaid work than the other men in the study, women in those partnerships still did more irrespective of earnings or hours, particularly in respect of housework (i.e. the doing gender explanation). This suggests that divisions of childcare may not be as gendered as housework and indeed Sullivan (2013) suggests that the housework gap is the most resistant to change due to its dislikeable, routine nature whereas childcare is more enjoyable.

2.2.2 Macro level factors and the role of UK work-family policy

The division of paid and unpaid work within couples is affected by an individual's upbringing, their social circle, cultural norms at their place of work as well as the message sent by UK policy (Sullivan, Gershuny and Robinson, 2018). These factors work together to influence individual gender role attitudes and parental identities but also collective attitudes and identities. The importance of context and understanding the overall social structure in which individuals are embedded is evidenced by the differences found in male and female unpaid work levels between countries in the comparative research (Hallberg and Klevmarken, 2003; Hook, 2006; Landivar, 2015; Edlund and Öun, 2016; Argyrous, Craig and Rahman, 2017). For example, Hook (2006) analysed time use data covering the period 1965 to 2003 from 20 countries, including the UK. It was found that men overall (both in couples and single) spend more time on unpaid work in contexts where married women's employment is more common. As this effect was found also for single men, Hook (2006) argues that this demonstrates evidence that the influence of women's employment "goes beyond the individual negotiations of husbands and wives" (Hook, 2006, p. 651). Lengthy parental leave policies favouring women were also found to reduce the unpaid work done by men but that in countries in which the portion of the parental leave could be given to the father, the unpaid working time of men increased.

The UK has been classed as a typical liberal welfare state (Esping-Andersen, 1990) which is characterised by limited state intervention in terms of work-family policy (Chung and van der Horst, 2018). While the UK has generous parental leave periods these are accompanied by low statutory minimum pay in comparison to the more active state work-family policies of other countries such as Sweden, Norway and Germany (Chaudhry *et al.*, 2020). Further, UK family leave policy is characterised by long periods of leave entitlement for mothers and comparatively much shorter periods of leave for fathers after the birth of a child (the UK's parental leave framework is discussed in more detail below).

This informs a policy context that seems to assume mothers should take time out of paid work after the birth of a child and fathers should continue to participate in paid work (Lewis and Campbell, 2007). This is then likely to be reflected in social and workplace norms. Indeed, in their research using the 2012 British Attitudes Survey, while Park *et al.* (2013) found what appears to be a shift towards acceptance of the idea that a mother works part-time (rather than not at all) the sample appeared to retain a view that mothers should be the primary carer. In response to the question “Consider a family with a child under school age: what, in your opinion, is the best way for them to organise their family and work life?”, only 9% of people chose options that did not involve the mother being ascribed the sole or main carer role. The most popular approach, selected by almost 40% of people, was for the mother to work part-time and the father to work full-time.

Also relevant is the norm of the ideal worker, “a disembodied worker who exists only for work” (Acker, 1990, p. 149). Such a worker is assumed to be male, able to work full-time, to be present in the office, able to travel and work long hours as needed, free of outside commitments (Acker, 1990). Persisting ideal worker norms and an associated long hours culture are incompatible with caring and taking time out after the birth of a child and in part may explain the lack of change in the division of housework and childcare between men and women (Crompton, Brockmann and Lyonette, 2005; Kanji and Samuel, 2017). Kanji and Samuel (2017) used 2010 European Social Survey data for 12 countries including the UK to examine the likelihood of men indicating overwork (measured as the difference between actual and desired paid working hours). They found that both male breadwinners with and without children worked the longest average hours and were more likely to indicate that their desired paid working hours were less than their actual hours. 58% of male breadwinners with children wanted to work fewer hours compared to 40% in equal earner and 38% in female breadwinner couples. This was partly explained by certain work characteristics such as increasing income levels and perceptions of work-life interference. They concluded that “the analysis cannot predict whether men would participate more in family

life if they were able to work fewer hours, but they suggest that male breadwinners at least desire this”(Kanji and Samuel, 2017, p. 351).

In summary, the literature suggests that micro level economic factors such the level of male and female earnings, as well as relative earnings, are important in determining the domestic division of labour within UK couples. However, these factors do not operate in a vacuum and cannot be separated from social processes (Bottero, 2005) such as parental identities and gender role attitudes at the micro level as well as overarching cultural and workplace norms at the macro levels.

Folbre’s (1994) conceptual model of “structures of constraint” emphasises both “choice and constraint, co-operation and conflict, individual and group dynamics” in explaining the gendered division of labour (Folbre, 1994, p. 4). Her model emphasises the importance of institutions such as legal and political frameworks in facilitating change but also the importance of individual agency in challenging cultural norms. How these competing factors play out at the household level will depend on the circumstances and resources of the particular couple. While couples at the highest income levels may be more able to freely choose how they organise their paid and unpaid work which may be more likely to be based on their preferences (Hakim, 2011) than what policy and macro level norms suggest they can and cannot do, the constraints “patterned by social structure whether manifested through differing qualifications, social networks or income” (McRae, 2003, p. 334) cannot be ignored. As such, couples at lower income levels are less likely to be in a position to challenge cultural norms at the macro level in a policy context that does not support them, e.g. a lack of paid leave for fathers or ability to adjust paid working hours (Warren, Pascall and Fox, 2010; Alakeson, 2012).

Fig.2.1. below summarises the factors discussed above which may affect the domestic division of labour in mixed-sex couples with dependent children. This is explained by a combination of factors at different levels which are multi-directional and interact. It draws on Folbre (1994) and Crompton (1999, p. 8) who argues for a “theoretical pluralism” which uses a number of different explanatory frameworks due to difficulties in applying a single explanatory theory to gender relations. For example, it recognises the importance of structures and institutions (e.g. legal frameworks, organisations) in informing couples’ domestic divisions of labour but also recognises some of the economic and sociological factors that are specific to couples/individuals and that may enable or constrain the extent to which they are able to challenge these structures. This diagram is not intended to be exhaustive and indeed there are other factors at the household level which may affect the division of labour within couples which are not focused on

in this study. For example, the presence of other adults/older children in/outside the household who may require additional care (McMunn et al, 2020) or may be able to help with household duties (Gershuny and Sullivan, 2014). Ethnicity may also be a factor which is not considered in this study (Kan and Laurie, 2018).

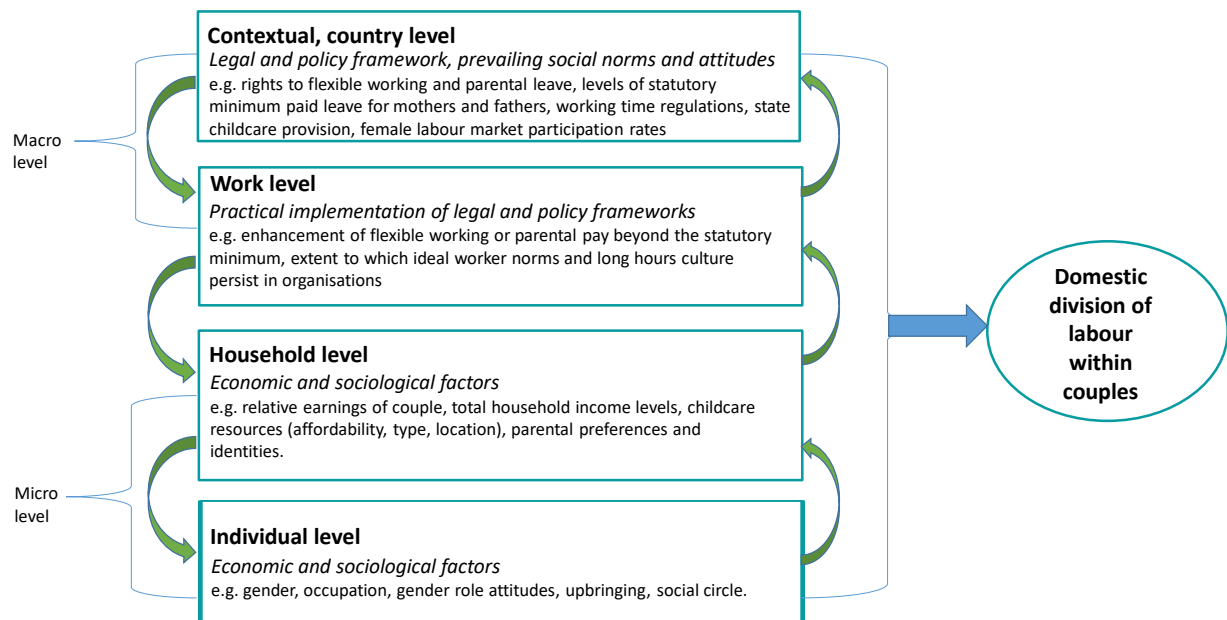


Fig. 2.1: Factors affecting the domestic division of labour of UK parent couples

2.3 The UK parental leave and flexible working policy framework

The wider UK policy focus on improving gender equality and diversity in the workplace and society has been discussed in chapter 1. Addressing gender stereotypes in education, maximising the earnings of women to give them bargaining power and requiring organisations to address the reasons for their gender pay gaps will go some way towards addressing imbalances in the paid and unpaid work of mothers and fathers. Other areas focus on providing better quality, funded and flexible childcare for children in the early years to help address material constraints to mothers participating in paid work (Himmelweit and Sigala, 2004; Sullivan, Gershuny and Robinson, 2018) and strategies to better regulate the UK long hours culture (Booth and Holmes, 2019). There must also be a focus on addressing gendered norms around caring and breadwinning and ideal worker norms therefore the following considers the recent policy changes in this area, i.e. attempts to improve parental leave for fathers and to ensure that flexible working arrangements are more widely used.

Changes to UK parental leave policy have been incremental and first began with policies focused on mothers such as statutory maternity leave and pay. UK employed mothers are currently

entitled to up to 12 months leave after the birth of a child. There are a number of qualifying criteria in terms of statutory maternity pay or allowance (e.g. period of employment or self-employment) which is payable for a period of 39 weeks; the statutory minimum is 90% of average weekly earnings for the first 6 weeks and for the remaining 33 weeks it is £156.66 per week (UK Govt, 2022).

More recently the UK's parental leave policies have begun to take into account fathers. Since 1999 fathers (as well as mothers) have been entitled to unpaid parental leave (up to 18 weeks' leave for each child up to their 18th birthday to a maximum of 4 weeks per year) however they did not have a statutory right to paid leave to care for a child until 2003 when paid paternity leave was introduced (Chaudhry *et al.*, 2020). UK employed fathers are currently entitled to two weeks leave with statutory weekly minimum pay entitlement being approximately £150 week (UK Govt, 2015). Other policies aimed at enabling fathers to take more time out of work in their child's first year have focused on policies which allow couples to transfer mothers' unused maternity leave to the father/partner. Firstly, additional paternity leave (APL) was introduced in 2011 which allowed mothers to transfer part of their maternity leave to the father 20 weeks after the birth (Kaufman, 2018). This was then replaced by the current Shared Parental Leave (SPL) regulations in 2015 which were intended to give parents more flexibility than APL over how they share childcare during the first year of the child's life. SPL is applicable to working parents with children born after April 2015 and enables them to transfer up to 50 weeks of the mother's leave to the father and up to 37 weeks of statutory pay in their child's first year (*The Employment Rights Act*, 1996). Parents can take the leave concurrently or separately and can choose to take it over multiple periods rather than in one block (which was the case for APL). SPL is subject to similar statutory minimum pay levels as maternity leave mentioned above. However, despite these changes, there has been very limited use by UK couples; HMRC figures suggest that in 2019 only 2% of eligible couples took it up (Howlett, 2020). While some employers may choose to enhance pay beyond the statutory minimum research suggests that they may be more likely to enhance maternity leave rather than SPL (Forbes, Birkett and Smith, 2020); this lack of parity is also likely to affect take-up of SPL.

In contrast to parental leave policies, the right to request flexible working was aimed at both mothers and fathers when it was first introduced in 2002 for employees with a child aged five or under (18 or under for disabled children). Introduction of the right was aimed at enabling parents to better organise their paid work around their unpaid work responsibilities. This right was then extended in 2007 to include employees caring for sick or disabled adult household members and parents of children under the age of 17 in 2009 (Tipping and Perry, 2012).

Despite the right being aimed at both mothers and fathers, from the outset of its introduction in 2002 the use of flexible working was predominantly associated with mothers particularly in terms of part-time work (Atkinson and Hall, 2009; Cook *et al.*, 2021). As mentioned in chapter 1, part time work is often low quality and low paid and explains a sizeable part of the UK's gender pay gap. Further, research suggests that a flexibility stigma may exist, particularly regarding reduced hours flexibility (e.g. part-time work, job shares) for both men and women and which may be associated with negative career consequences (Rudman and Mescher, 2013).

The use of flexible working for all is seen to be important for meeting the changing needs of families, workers and employers (Equality and Human Rights Commission, 2009). This informed the extension of the right to request flexible working to all employees with more than 6 months' service (regardless of caring responsibilities) on 30 June 2014 (*The Employment Rights Act*, 1996). The hope is that this will help move the UK towards a work environment where quality, flexible work is the norm at all levels of an organisation and away from a work culture that may stigmatise those who use it (Pyper, 2015).

Alongside parental leave for fathers, increasing the use of flexible working for all (including fathers) in the UK therefore has the potential to help create a household context where both mothers and fathers in couples have a greater number of options available to them when deciding how to combine their paid work and family responsibilities. As shown in the section above, such policies form part of the overall social structure in which individuals are embedded and can help facilitate change at the work, household and individual levels. This study therefore focuses on the potential of the UK's flexible working policy (which includes legislative frameworks and the extent to which organisations implement these) to alleviate constraints in paid work to promote further change in terms of the convergence of the unpaid work of mothers and fathers, i.e. it considers the relationship between macro level factors and the economic and sociological factors at the micro level.

The next section of this review introduces the definition of flexible working used in this study and the theories within which it has been situated. The determinants and outcomes of worker-led flexibility at both the micro and macro level are presented with reference to the recent research. Finally, the literature that has linked worker-led flexibility with the unpaid work of parent couples is considered in detail. This is used to inform the study's research questions and identify the gap in knowledge that this study seeks to address. While this study does not primarily focus on the UK's parental leave policy it recognises the importance of this to

understanding couples' divisions of unpaid work therefore the following section also contains references to it where relevant.

2.4 Worker-led flexibility

2.4.1 Definition

Work flexibility has two different meanings; first “the pursuit of employee flexibility at work by employers to maximise productivity and secure economic efficiency”, and second, “the enhancement of flexible working opportunities to promote employee work-life balance” (Pilbeam and Corbridge, 2010, p. 111).

The first meaning is related to Atkinson's (1984) model of the flexible firm, a concept of flexibility regarding a firm's ability to adjust the skills, inputs, distance and pay of its employees to match changes in workload: something that is “done to the workforce” (Bratton and Gold, 2012, p. 186). Fleetwood (2007) refers to practices linked to this type of flexibility as “employer-friendly” flexible working practices: outsourced, temporary and casual work which would include shift work, fixed term, zero-hours contracts and some types of part-time work (see further below). Such work is linked to precarity and is generally perceived to have a negative effect on work-life balance due to the lack of job security, unsociable and uncertain working patterns (Rubery, Keizer and Grimshaw, 2016). From the employer-friendly perspective the primary goal of flexibility is to enable the organisation to adapt (Jeffrey Hill *et al.*, 2008), for example, to changes in customer demand. While an arrangement such as a zero-hours contract may suit the employee (e.g. students are able to combine work and study (Taylor, 2017) they remain a secondary consideration.

The second meaning, the focus of this study, can be related to Fleetwood's (2007) “employee-friendly” practices which are aimed at promoting employee work-life balance. This includes temporal flexibility such as term-time working or flexible start and finish times and spatial flexibility such as working from home. Such practices result from the more recent shift in the UK and elsewhere to flexibility that allows the employee more choice over where, when and for how long work is done (Bratton and Gold, 2012). Central to the employee-friendly perspective is the goal of enabling the employee to make work choices that help them meet their personal and family needs although there may well be a secondary benefit to the organisation if as a result the employee's needs align with employer needs (Jeffrey Hill *et al.*, 2008).

Conceptually this appears to be a fundamental distinction however in practice it is not always clear cut. Part-time work may fall into either category. Take the example of a professional employee applying to return to work part-time after maternity leave compared to an employee

working in retail whose part-time hours are designed by the employer to accommodate busy periods. Specific knowledge of the employee and their employer may be necessary to properly distinguish between the two meanings. Furthermore, it is possible that certain “employee-friendly” working practices may in fact have a detrimental effect on an employee’s personal life. Practices such as home working have been linked to long working hours in higher level occupations (Crompton, Brockmann and Lyonette, 2005; Kossek and Lautsch, 2018) and may end up benefitting employers more than employees (Russell, O’Connell and McGinnity, 2009; Sang *et al.*, 2015).

This study recognises these complexities and seeks to distinguish between the two meanings of flexible working where possible. It is argued that key to the distinction between the two perspectives is whether the flexibility originates from the employer or the employee. While an indirect benefit may arise for the other party, the key question is: who leads the flexibility (Jeffrey Hill *et al*, 2008; Kossek and Lautsch, 2018)? The definition of worker-led flexibility used in the current study draws on that of Jeffrey Hill *et al* (2008) and is as follows:

“The ability of workers to make choices influencing when, where, or for how long they engage in paid work-related tasks”.

This definition recognises both temporal (i.e. when or for how long) and spatial flexibility (i.e. where) and can cover both formal (i.e. regular, contractual) and informal (e.g. ad hoc agreements) flexible working arrangements. Use of the word “or” distinguishes those employees who may only have temporal flexibility but not spatial flexibility (e.g. part-time working in a doctor’s surgery) although it is recognised that some employees may have more flexibility than others for example by having both temporal and spatial flexibility (e.g. a manager who can adjust start and finish times and is also able to work at home). “Workers” here includes anyone engaged in paid or economic work and does not use the employment law definition in which workers are distinguished from employees or independent contractors (ACAS, 2017). The majority of the work flexibility literature focuses on employees, i.e. those who are employed under a contract of service rather than those under a contract for service (the self-employed). However, the above definition recognises that many self-employed workers (e.g. freelance consultants, builders) may also be able to make flexible work choices that help them meet their personal and family needs in similar ways to employees.

2.4.2 Theories explaining worker-led flexibility

Many theories have been used to explain the processes and outcomes of work-life flexibility and most commonly these include theories related to role conflict, control/autonomy and boundary

management (Kossek and Lautsch, 2018; Jeffrey Hill et al, 2008). Role conflict theory posits that an individual's participation in their paid work role may be made more difficult by their participation in their family role (and vice versa) thus potentially leading to work-family conflict (Allen and Finkelstein, 2014). Flexibility around when and where individuals do their paid work may reduce work–family conflict because workers can restructure work around family demands as needed (Chung and van der Horst, 2018; Kossek and Lautsch, 2018). Flexibility also enhances control and autonomy over work and life demands. Boundary management theory (Clark, 2000; Piszczek and Berg, 2014) is broadly similar in its predicted outcomes; having temporal and/or spatial flexibility allows workers to control the boundaries between work and home, facilitating a better work-life fit.

Jeffrey Hill et al (2008, p. 157) propose a useful conceptual framework which draws together the main theories in which the research on workplace flexibility has been situated to help explain its determinants and outcomes. This proposes that the determinants of workplace flexibility operate at an individual (e.g. age, gender), family (e.g. caregiver status), workplace (e.g. policies, culture and support of colleagues) and community level (e.g. infrastructure such as transport links, broadband provision and social norms). These determinants work together to influence the extent to which workplace flexibility is achieved by the worker, i.e. the ability of workers to make choices influencing when, where, or for how long they engage in paid work-related tasks. In turn, the extent to which workplace flexibility is achieved is seen to influence the outcome of work-life fit, i.e. the worker's ability to integrate work and life. Work-life fit as an outcome is again theorised to manifest at four levels which operate together: individual vitality (e.g. health, life satisfaction), home and family vitality (e.g. family cohesion and relationships), workplace vitality (e.g. retention, performance) and community vitality (e.g. involvement and social connections).

It has already been shown above how country context is important in understanding how work-family policies play out at the macro and micro levels; rules and regulations may affect what organisations offer as well as individual preferences and expectations. It is therefore argued that country or state characteristics are also an important level (Piszczek and Berg, 2014) that should be added to Jeffrey Hill et al's (2008) model in conceptualising the determinants (e.g. laws and regulations) and outcomes (e.g. overarching country norms) of workplace flexibility.

2.5 Determinants of worker-led flexibility

The following considers the main determinants of worker-led flexibility in the UK.

2.5.1.1 Right to request legislation

The statutory right to request flexible working in the UK was introduced in an earlier section. This right was first introduced in 2002 and has gradually been adapted with the most recent change in June 2014 giving the right to request to all UK employees (regardless of caring responsibilities) with at least 6 months service. In deciding to invoke the right an employee must submit a written request to their employer including information regarding the type of flexibility they are seeking, what effect this might have on their employer and how in their opinion this should be dealt with (ACAS, 2014). The employer considers the request and makes a decision within 3 months. If the employer agrees to the request, they must change the terms and conditions in the employee's contract. If the employer disagrees, they must write to the employee giving one of the eight business reasons for the refusal. These include reasons such as: the work cannot be reorganised; to grant the flexibility would create additional costs; customer demand will be affected or employers are unable to recruit others to do the work. A consultation regarding potential changes to this legislation have recently been proposed by the UK government following shifts in thinking about flexible working following the pandemic (BEIS, 2021). Proposed changes include removing the qualifying 6 months service period (i.e. making the right to request a day one right), a potential narrowing of the business reasons for rejection and changes to the process of requesting flexible working. It remains to be seen what changes, if any, will be made.

The right to request does not equate to a right to work flexibly. The business reasons for rejecting a request are broad therefore it is relatively easy for an employer to refuse a request and there are limited options available to an employee who has their request refused (Close the Gap, 2021). Indeed, it has been suggested that employment tribunals are unlikely to interfere with an employer's decision (Shoosmiths, 2016). Further, only employees with over 6 months continuous service have the right to request which may affect women more than men, for example, women returning to work after a taking time out of paid work to care for a child (Tomlinson, Olsen and Purdam, 2009; Rubery, Keizer and Grimshaw, 2016).

Separate to the statutory right to request for employees in the UK, the Public Sector Equality Duty came into force in 2011 in the UK requiring all public bodies to deliver policies and services which are accessible to all and to be able to demonstrate this by publishing certain information such as the outcome of flexible working applications for those with protected characteristics (Government Equalities Office, 2010).

The following sections consider how UK policies and legislation have played out in practice.

2.5.1.2 *Organisational culture and practice*

At the work level, organisational working practices evolved alongside the legislative changes, albeit at different rates which varied by organisational size, sector and industry type. For example, many firms chose to offer the right to request flexible working to all employees well before 30 June 2014; flexible working policies often form part of the bundle of policies offered by larger organisations choosing to adopt High Performance Work Practices (Hutchinson, 2013). Certain flexible working arrangements may be offered to all or certain groups of employees without the need for a statutory request. This is often the case with flexible start and finish times (commonly known as flexi-time) where, providing that employees work during certain core business hours (often 10am to 4pm) and/or work the correct number of contracted hours, they are able to choose their own start and finish times (Chung and van der Horst, 2018). In addition, the use of informal flexibility is widespread (De Menezes and Kelliher, 2017) and may be used in conjunction with formal practices or, in smaller organisations, instead of formal arrangements (Maxwell et al., 2007; CIPD, 2012). Such flexibility does not lead to formal changes to the employment contract and is instead negotiated by an employee on an individual basis with their supervisor or line manager. It may involve agreeing home working on a regular basis or to come in later one day to enable attendance at a medical appointment. Informal flexibility may also be organised among employees themselves (De Menezes and Kelliher, 2017) such as shift swapping in the NHS (Atkinson and Hall, 2009). By its very nature, informal flexibility is difficult to measure and the extent of its use across the UK is unclear (CIPD, 2019).

Organisational work–family culture is also a driver of worker-led flexibility, “the shared assumptions, beliefs, and values regarding the extent to which an organization supports and values the integration of employees’ work and family lives” (Thompson, Beauvais and Lyness, 1999, p. 394). While organisations may have gone beyond the minimum requirements of the legislation, there may be a disconnect between the rhetoric of organisational policies and the reality of employees being able to work flexibly. The norm of the ideal worker, mentioned above, is often linked to a male employee who is able to work full-time, is present in the office, able to travel and work long hours as needed, free of outside commitments (Acker, 1990). The very notion of the ideal worker is at odds with a worker having flexibility over when, where or for how long their work is done and is a particular concern for mothers who (due to gendered assumptions of caregiving) are more likely to desire such flexibility (see further below). The extent to which ideal worker norms are present in an organisation is likely to affect the availability and use of worker-led flexibility and individual line manager attitudes have been

found to be key to this (CIPD, 2012; Michielsens, Bingham and Clarke, 2013; Working Families, 2021).

There is much speculation that the recent Covid-19 pandemic may help organisations move away from ideal worker norms and towards more flexibility particularly in relation to home working, i.e. where the work is done (Parry *et al.*, 2021). However it is currently unclear how lasting the “Covid effect” will be and the full-time nature of the ideal workers norm may well persist; the use of reduced hours flexibility such as part-time hours may be the “strongest violation of ideal worker norms” (Cook *et al.*, 2021, p. 6). Indeed, Michielsens, Bingham and Clarke (2013) found a dichotomy of flexible working which distinguished between employees who worked flexibly but were available (i.e. remote workers) and those who worked flexibly but were unavailable (e.g. those working reduced hours). The latter, who are so often women, was seen to be a particular challenge, and often seen as incompatible by line managers and business leaders for employees in client-facing and senior roles where presenteeism, long working hours and meeting client expectations at all costs are paramount.

2.5.1.3 *Social class*

Structural factors such as the nature of the work will also affect worker-led flexibility (CIPD, 2012). Some jobs will naturally be more conducive to flexibility than others due to the nature of the job, business needs and the availability of technology, for example to facilitate remote working (Jeffrey Hill *et al.*, 2008; Blake-Beard *et al.*, 2010). Improved technology has facilitated the use of remote and home working in certain sectors which was the only worker-led flexible working arrangement found to have experienced a “slow but steady increase” in the period 2007 to 2017 in the CIPD’s (2019) research using Labour Force Survey data.

Jobs in which an employee has control over how the work is done may be more suited to flexi-time and remote working; high trust/high autonomy roles which may be more likely in professional and managerial occupations (Hyman, Scholarios and Baldry, 2005; Ba’, 2014). Such flexibility is often given via informal means rather than via a formal flexible working request (Hyman, Scholarios and Baldry, 2005). In contrast, routine, manual and customer service work requires presence at specific shifts (Cook *et al.*, 2021).

The Covid-19 pandemic has highlighted the inequalities faced by certain groups, i.e. employees for whom home working and flexi-time is not an option (Hupkau and Petrongolo, 2021). This includes employees at both the higher (e.g. hospital workers, protective services) and lower levels (e.g. factory workers, supermarket employees). However, while it is agreed that the nature of work prevents the use of certain types of work flexibility it is also argued that it is often all too

easy for employers (due to the business reasons specified in the legislation) to cite the nature of a role as a reason for refusing a flexible working request. Stereotypes regarding the ideal worker can be barriers to organisations and employees challenging the status quo (Goga-Cooke, 2012) or coming up with more creative ideas to make a job flexible. The labour market may also affect this; in a tight labour market organisations may need to work harder to make themselves more attractive to potential employees and may be more open to flexible working if they cannot find the right person for a role whereas in a loose labour market employees have less bargaining power.

Due to the 6 months minimum service requirement, many temporary and fixed term contract employees will not have the right to request flexibility (Rubery et al, 2016). This will also be the case in jobs where the employment status of workers is unclear, for example those who are classed as self-employed by the organisations they work for but may in reality should be treated as employees and afforded employment rights. This is more common in certain sectors such as construction and the service industry (Taylor, 2017).

2.5.1.4 *Gender norms and ideals*

As mentioned above, persisting norms around what it means to be a good parent differ for mothers and fathers and this is reflected in differences between mothers and fathers in the perceptions of availability and use of worker-led flexibility (Atkinson and Hall, 2009). Women are more likely than men to perceive part-time, term-time only and job shares as available to them and also more likely to use such arrangements (Tipping and Perry, 2012; Chandola *et al.*, 2019; CIPD, 2019; Cook *et al.*, 2021). For example, Cook et al (2021) focused on parent employees finding that fathers were four times more likely than mothers (using 2015 survey data) to say that part-time working was not available at their workplace after controlling for occupational and sectoral differences. Even when men apply for such arrangements they have been found to be less likely than women to have their requests approved (Tipping and Perry, 2012). Gatrell et al's (2014) interviews with fathers found cases of rhetoric not reflecting reality; although an organisation's flexible working policy said it was available to all parents the fathers experienced difficulties in accessing it and believed this was because line managers considered flexibility to be irrelevant to them due to gendered breadwinner assumptions. In contrast, there appear to be few gender differences in the availability and use of flexible working that does not involve reduced hours, for example home working, flexi-time and compressed hours (Tipping and Perry, 2012; Chandola *et al.*, 2019; Cook *et al.*, 2021).

The above has shown that legislative rights, organisational culture and practice, social class, gender norms and ideals co-exist and interact to determine the extent, and type of worker-led flexibility an individual has in the UK. Some employees will not meet the continuous service requirement to qualify for the statutory right to request and regardless employers have a broad remit of reasons within which they can refuse a request. Due to legislative limitations, in many cases the extent of UK employee's work flexibility will therefore be beholden to organisational culture and practice. For example, employees in larger organisations may be more likely to have flexible working arrangements. In turn such arrangements may be more likely to be formalised, particularly in the public sector, as opposed to those in smaller organisations which may be more informal. Employees working in environments with persisting ideal working norms may find that reduced hours flexibility is more difficult than home working or flexi-time. Further, the nature of an employee's role may determine the type of flexibility that is available to them. Gendered norms interact with these factors to determine the extent to which mothers and fathers perceive that (particularly reduced hour) flexible working arrangements are available to them, how likely they are to apply to use them and how likely employers are to grant them.

In the UK, research has found that part-time hours is the most commonly used arrangement in the UK followed by flexi-time and home working. Least commonly used arrangements in the UK are job shares and compressed hours (Tipping and Perry, 2012; Wanrooy *et al.*, 2013; CIPD, 2019). Generally speaking, the UK flexible working landscape is one where reduced hours flexibility (part-time, term-time, job share) is predominantly used by women and is linked to gender and caring; most often part-time work which will be formalised (i.e. agreed formally and written into an employment contract). In contrast full-time flexibility is more closely linked to job characteristics and seniority levels rather than gender; it may be formal (e.g. all-employee flexi-time policies) or informal (e.g. home working agreed with line manager).

2.6 Determinants of parental leave

As mentioned above, since shared parental leave was introduced in 2015, there has been limited use by UK couples; HMRC figures suggest that in 2019 only 2% of eligible couples took it up (Howlett, 2020). The explanations for the lack of use of parental leave for fathers share a number of commonalities with the determinants of worker-led flexibility discussed above. Indeed, the right to take parental leave is rooted in legislation however UK work-family policy remains focused on mothers given that SPL relies on the mother transferring some of her maternity leave to the father and thus reducing the time she spends on leave. This gives the option for "parents to maintain the status quo of extended maternity leave" thus re-emphasising

gendered norms around caregiving rather than challenging them (Twamley and Schober, 2019, p. 4). The only ring-fenced (i.e. non-transferable) right to paid time off after the birth of a child that UK fathers have is the two weeks of paternity leave mentioned above. It is this lack of ring-fencing (which exists in some of the Nordic countries and Germany) which has brought much criticism of the UK SPL regulations (Atkinson, 2017).

Organisational culture and practice, as well as ideal worker norms, will also determine whether fathers feel able or encouraged to take up parental leave (Ndzi, 2021; Thébaud and Pedulla, 2022). Further, while a number of UK employers choose to enhance pay and leave beyond the statutory minimum these tend to be those who employ knowledge workers or those in the public sector. As such fathers using shared parental leave are likely to be skewed towards those in the upper occupational classes (Banister and Kerrane, 2022), those who work in certain sectors or those higher earning couples who are able to afford to endure statutory minimum pay for a period of time or to take unpaid leave. Indeed, in a US based experimental study, Thebaud and Pedulla (2022) found that reducing the financial costs associated with parental leave-taking significantly increased the likelihood of men saying they would take such leave. At the family level, couples sharing parental leave may have attitudes that favour more equal parenting and involved fatherhood practices (Twamley and Schober, 2019).

2.7 Outcomes of worker-led flexibility

The extent to which a worker has flexibility is seen to influence the outcome of work-life fit, i.e. the worker's ability to integrate work and life. In theory (Jeffrey Hill et al 2008) this may lead to individual vitality (e.g. health, life satisfaction, less stress), home and family vitality (e.g. family cohesion and relationships), workplace vitality (e.g. retention, performance) and community vitality (e.g. involvement and social connections). Indeed, the use of flexible working in the UK has been linked to improved organisational performance achieved via the enhanced engagement, retention and motivation of employees (CIPD, 2012). Flexi-time was found to increase the likelihood of UK mothers returning to work after being on maternity leave and has been linked to fewer reductions in paid working hours by mothers (Chung and van der Horst, 2018). This is important because the retention of mothers returning to work after maternity leave is a concern; many well-qualified mothers have accepted lower paid and low status jobs or have left their roles altogether because of the limited flexible options available in highly skilled jobs (Equality and Human Rights Commission, 2009; Cahusac and Kanji, 2014; Lyonette, 2015; Timewise, 2020). In turn, employees report high levels of job satisfaction (Kelliher and Anderson, 2008) and productivity e.g. from less travel time and reduced stress, absence reduction and staying healthy

(CIPD, 2012). Indeed, using UK representative survey and bio-marker data, Chandola et al (2019) found that men and women in the UK who used reduced hours flexibility had lower stress levels than their counterparts working full-time and further that UK mothers working less than 24 hours a week were found to have lower stress levels than mothers who did not work reduced hours.

However, these positive outcomes are not guaranteed. In their systematic review of the research to date, Kossek and Lautsch (2018) argued that the use of flexi-time and compressed hours at the upper occupational levels showed mixed outcomes; while they helped reduce work-family conflict such arrangements were also associated with a culture of overwork (e.g. long hours). They found that the research shows that flexi-time most benefits middle and lower level occupational workers leading to job satisfaction, engagement and lower turnover. However, as found in the US (Gerstel and Clawson, 2014) and in the UK (Alakeson, 2012) it is these very occupational classes which have the most limited access to flexi-time.

Regarding home working, Kossek and Lautsch (2018) also found mixed evidence in their review. Some studies found benefits in terms of improved autonomy, reduced turnover and work-life interference, however others found more negative outcomes related to poor co-worker relationships and increased family-work interference. Again, for the upper occupational classes home working had the potential to lead to work intensification and exhaustion (there was limited research at the middle and lower occupational levels). Indeed, van der Lippe and Lippényi (2020) analysed responses to the European Sustainable Workforce Survey for nine countries, including the UK, finding that home working led to more work-family conflict, i.e. respondents found it hard to find time for leisure, hobbies and struggled to relax. This was particularly the case in organisational contexts with ideal worker norms.

Linked to ideal worker norms is the concept of flexibility stigma, “a type of discrimination triggered whenever an employee signals a need for workplace flexibility due to family responsibilities” (Rudman and Mescher, 2013, p. 323). Chung (2020) found evidence of a flexibility stigma in the UK using representative survey data from 2011 with approximately a third of respondents agreeing that flexible workers made more work for others (i.e. colleagues) and were less likely to get promoted. This stigma has been found to affect career and promotion prospects (Kelliher and Anderson, 2008; Lyonette, Kaufman and Crompton, 2011; Cahusac and Kanji, 2014; Sommerlad, 2016). The research has tended to focus on mothers however very recent research also suggests that fathers working reduced hours may have similar experiences (Ewald, Gilbert and Huppertz, 2020; Kelland, Lewis and Fisher, 2022). The extent

to which a flexibility stigma affects an individual worker will depend on a number of variables including their occupation and sector. Research suggests that those working reduced hours and/or those in higher level occupations in the private sector are likely to be most at risk. It is noted that there is a degree of circularity to this in that flexibility stigma may also be a determinant of workplace flexibility for others due to its potential effect on organisational culture.

In summary, based on theory and the research to date, worker-led flexibility has the potential to result in positive outcomes at the work, household and family levels by enabling mothers and fathers to reconcile their paid and unpaid work responsibilities more effectively; organisations retain employees and parents experience less work-life conflict. However, the above also shows that worker-led flexibility may lead to negative outcomes; work-life reconciliation may not always equal work-life balance (Kurowska, 2020). These are complex relationships and will differ depending on the type of flexibility used and the specific work and home characteristics. Indeed, employees may experience both positive and negative outcomes concurrently, e.g. parents working long hours into the evening in exchange for gains at the household level in terms of more time with their children during the day. This study is mindful of these negative consequences whilst focusing on the potential of worker-led flexibility to enable parents to reconcile their paid and unpaid work responsibilities, particularly how it affects their divisions of unpaid work, i.e. the outcomes at the household level. The following section examines the research that has linked worker-led flexibility and the unpaid work of parent couples.

2.8 Research linking worker-led flexibility and childcare time

2.8.1 Quantitative studies

This section focuses on the link between worker-led flexibility and unpaid work. It is recognised that parent couples may also organise their work around organisation-led flexible working practices such as shift work. Gerstel and Clawson's study (2014) interviewed fathers working as firefighters in the US finding that they contravened conventional gender expectations; while they had little flexibility in their main job due to set shift patterns they were flexible in the way they accepted (or did not accept) overtime, when they worked in second jobs and used sick leave. These fathers made a significant contribution to childcare and it was common for their female partners to work different shifts to them and for the couple to share childcare, albeit with the detriment of a couple not seeing each other and unsocial hours and weekends. While couples without worker-led flexibility may also have relatively equal work-family responsibilities these are often associated with unsociable hours including evening and weekend shift work and lack of

family time or leisure time (Zilanawala, 2021). For this reason this study focuses on worker-led rather than organisation-led flexibility.

Reduced hours flexibility (applying theories of time availability) can directly increase working parents' time with their children by reducing their total number of paid work hours. This assumes the parent has applied for the reduced hour flexibility to care for their children rather than other reasons such as to reduce stress at work or have more leisure time. The outcomes of other types of flexibility in terms of unpaid work may be less clear. Many parents may work from home but there is a difference between working from home occasionally/taking work home in the evenings and more regular arrangements to spend a full day working from home; the latter of which may be more likely to be driven by family reasons than job mandated reasons (Carlson, Petts and Pepin, 2021). Further, in contrast to reduced hours flexibility, while flexi-time may allow parents to take time off to attend school meetings or take children to a doctor's appointment it may not directly increase time with their children if the parent must make up the missed work at other times of the day and is not able to work from home (Kim, 2020).

However, if flexi-time is used regularly and work hours are structured around times children are at school or in childcare it may be more likely to result in increased childcare time.

It is established above that mothers are more likely than fathers to seek reduced hours flexibility after having children. Most commonly this reduced hour flexibility involves part-time work and in combination with a full-time working father informs mother-dominant divisions of unpaid work in a couple. Using the UK Millennium Cohort Study data, couples in which the mother worked part-time when their first child was 9 months old have been found to be less likely than couples in which the mother worked full-time to share the parenting with the father when the child is aged three (Norman, Elliot and Fagan, 2014). Further, using UK Time Use data from 2014-15, fathers in couples in which both parents work full-time are more likely to provide primary or routine childcare than fathers in couples whose partner works part-time (Walthery and Chung, 2021). Quantitative research has tended to look at the effect of part-time work for mothers however more recently has also started to consider fathers. For example, part-time work for fathers in dual-earner couples has also been found to be associated with an increase in their routine and enrichment (e.g. reading, playing) childcare in the US (Kim, 2020).

More recent research has also considered the impact of other types of flexible working such as flexi-time and home working on unpaid work. Regarding flexi-time, Kim (2020) also found that for US fathers the availability of flexi-time was associated with an increase in the frequency of routine childcare activities (e.g. preparing meals, dressing and bathing) but that flexi-time for

mothers was not. The reasons for this are unclear. The authors speculate that flexibility for mothers may not increase routine childcare because it would have been them who did such tasks anyway. In UK research, Walthery and Chung (2021) used 2014-15 UK time use data to examine the relationship between work flexibility and the childcare time of mothers and fathers in dual-earner couples. They found on average that UK fathers are more likely engage in childcare jointly with the mother or take on the more enjoyable enrichment childcare, mainly at the weekend. However, fathers who used flexible working time arrangements (this included flexi-time but also compressed hours, zero hours and job shares) were up to twice as likely to provide primary care (i.e. childcare as their main activity) or routine care (e.g. feeding, cleaning/bathing, routine bedtime activities, or taking children to school) than those who were not able to use them.

In terms of home working, Kurowska (2020) compared the effect of home working (measured by whether respondents spend all or part of the week working at home) on the unpaid work (housework and routine childcare) of parents in Poland and Sweden. They found that home working (e.g. from time saved on commuting) meant that mothers in both countries spent more time doing routine childcare/housework. Home working fathers in Sweden also spent more time on unpaid work however those in Poland did not. This suggests that home working for mothers may perpetuate traditional gender divisions of labour in less egalitarian contexts like Poland (where fathers are not expected to do housework and childcare) but that this may be mitigated in more egalitarian contexts like Sweden if the father is also able to work at home. In the US, the use of home working (i.e. a formal arrangement to work at home rather than just taking work home) for mothers was associated with an increase in enriched (e.g. reading, playing) childcare but home working for fathers was not (Kim, 2020). However, other US research has found that home working of the father *does* lead to them spending more time on childcare. Using time use data, Carlson, Petts and Pepin (2021) found that in dual-earner parent couples, fathers' use of home working at least one day a week was associated with more time spent on routine childcare than fathers who did not work from home and this time increased as the number of days spent home working also increased.

2.8.2 Qualitative studies

Turning to the qualitative research, in their US study Gerstel and Clawson (2014) explored flexible working experiences of the medical profession. The female nurses they interviewed had some flexibility to choose when they worked given a range of choices of shifts and hours and an organisational (female-dominated) culture which was supportive of working families. The mothers expected this flexibility and used it to spend more time with their children which they

indicated was their preference; they did not rely on their partners to adjust their schedules. This was similar to the findings of Hilbrecht et al (2008) in their interviews with Canadian highly-educated mothers who worked at home full-time and also used flexi-time arrangements to fit their paid work around their children's routines. These mothers did not appear to question their role as primary caregiver or the unequal division of household labour and rarely mentioned their partner's involvement.

The findings of these two studies suggest that mothers may use flexibility in a way that perpetuates gendered divisions of labour. This may be evidence of traditional gender role attitudes favouring the mother as the primary carer however it is not clear whether the male partners of the mothers in these studies did not have flexible jobs or whether they had access to flexibility but were not using it. Research suggests that fathers may be reluctant to make use of flexibility if it negatively affects a mother's choice to be the primary carer ((Ewald, Gilbert and Huppertz, 2020) and that both maternal and paternal gatekeeping practices may be a barrier to greater father involvement (Miller, 2018).

However, other research suggests that the father having flexibility may lead to them being more involved in the childcare. Indeed, in interviewing UK mothers, Himmelweit et al (2004) found that some fathers were not expected (and mothers did not rely on them) to contribute to the daily childcare routine due to their inflexible and long working hours but those mothers who could rely on the fathers to help with childcare drop offs had more freedom to participate in paid work. Radcliffe and Cassell (2015) considered the impact of flexible working on the daily experiences of work-family conflict for 24 dual-earner professional couples with dependent children in the UK and considered the impact of gender on these experiences. Each member of the couple kept diaries for a one-month period, with interviews with each individual at the beginning and end of the diary period. The findings suggested that where mothers had a more flexible job than their partner they tended to take on the responsibility for resolving the work-family conflict such as taking time off when their child was sick or organising alternative childcare. Fathers in these couples were not involved in resolving the daily conflicts that arose and were not expected or relied on to be, the mother effectively shielded them from such conflicts. There was also evidence that the mothers were reluctant to relinquish their maternal role at times where the father wanted and was able to take time out of work to care for their child. Conversely, when fathers had the more flexible job (which often involved flexi-time and home working), both parents experienced the conflict and both took responsibility for resolving it, i.e. the father did not shield the mother in the same way. This was the case even in couples where the father worked flexibly (including part-time) and in cases where the couple viewed the

father as their children's primary carer. These findings suggest that worker-led flexibility for fathers may help couples resolve conflict jointly and as such may enable fathers to be more involved in childcare, helping challenge gendered caring norms.

2.9 Research linking worker-led flexibility and other aspects of unpaid work

Few studies have focused on worker-led flexibility and outcomes in terms of the time spent by couples on housework. To some extent childcare and housework are indivisible; routine childcare is likely to involve food preparation for example and it is argued that worker-led flexibility has the potential to affect parents' involvement in housework in the same way as for childcare. However, due to changes in the nature and meaning of childcare such as interactive childcare and intensive parenting strategies (Sullivan, 2013) parents may be more likely to use their worker-led flexibility to spend more time on childcare than on housework. Indeed, the higher earning couples may be more likely to have cleaners (Lyonette and Crompton, 2015) and while they may also be more likely to outsource their childcare this may be mitigated by preferences for more intensive parenting.

Carlson et al's (2021) quantitative research above suggests that worker-led flexibility for US fathers may affect their housework time differently to their childcare time. While fathers' home working was associated with more time spent on childcare it was only associated with more time spent on housework if the mother also worked full-time. Indeed, in terms of divisions of housework, Sullivan (2013) suggests these may be more resistant to change within couples than childcare due to the dislikeable, routine nature of housework. Lyonette and Crompton (2015) found in their qualitative UK study that men were more likely to take on the main responsibility for the childcare than the housework in couples where the mother spent more hours in paid work compared to her male partner.

The research discussed above has focused on the relationship between work flexibility and the physical, measurable aspects of childcare and housework. However, as discussed in the earlier sections, unpaid work also includes more invisible, cognitive aspects (Damingier, 2019). This cognitive work, i.e. the thinking, planning and organising of family members, may become a mental load because it is inherently emotional, the enduring nature of caring for children that may lead to "endless rumination and worry" (Dean et al, 2021, p.2). Research suggests that this load may be more likely to be experienced by mothers due to its links to "good" mothering practices (Faircloth, 2020; Dean et al, 2021). While mothers and fathers in dual-earner couples have been found to spend similar amounts of time thinking about family, only mothers reported poorer emotional well-being (Offer, 2014). Indeed, Miller (2018) found no evidence of a mental

load in fathers which she suggests may be due to the singularity of a primary caring responsibility attached to mothers. Further, Risman and Johnson-Sumerford's (1998) qualitative in-depth study found that parent couples who divided the physical aspects of household work and childcare equitably in many cases also shared the worrying and the scheduling of family life. However in a number of couples this emotional labour was still divided along gendered lines. Few studies have linked worker-led flexibility and the mental load however worker-led flexibility in theory has the potential to reduce this load by allowing parents flexibility in how, when and where they care (Dean et al, 2021).

In summary, the quantitative and qualitative research suggests promising results in terms of the link between parents' use of worker-led flexibility and time spent on childcare. The use of worker-led flexibility may also be linked to housework time and the cognitive work of both parents however the research in these areas to date are limited. This is emerging research, the results are complex and at times against expectations. Differences in quantitative studies' results may be due to differences in context as well as the way in which worker-led flexibility is operationalised in the research not to mention difficulties with measuring it. By its very nature worker-led flexibility is intended to help employees combine work and life which are both dynamic concepts. As such how regularly home working and flexi-time are used may vary between parents from day to day or week to week. The effects of one type of worker-led flexibility may also be difficult to unravel given that they may often be used in combination with other forms of flexible working.

The above also suggests that the different combinations of mother and father worker-led flexibility may have different outcomes in terms of the division of childcare. Mother-only flexibility may perpetuate gendered caring norms which may be most obvious in couples in which the mother works part-time and the father full-time. However, father-only flexibility or joint flexibility of the couple may inform more equal divisions, helping break down traditional norms of caring and breadwinning. The role of gender role attitudes and identity cannot be ignored; more traditional attitudes of fathers and mothers may constrain father involvement in the unpaid work which may be particularly evident in divisions of the housework and cognitive aspects of the unpaid work.

2.10 Outcomes of parental leave

In terms of parental leave, like fathers who use worker-led flexibility, the research has found that fathers who take extended periods of time off after the birth of a child has been linked to greater father involvement in the unpaid work in a range of country contexts as well as closer

relationships with children and relationship stability (Rehel, 2014; Bünning, 2015; Schober and Zoch, 2019; Tamm, 2019). For example, Bünning (2015) found that German fathers increased their involvement in childcare even after short and joint periods of parental leave but that those who took extended period of leave (defined as two months or more) or were on leave while their partner was working increased their participation in housework. The UK research is emergent and there is little UK quantitative research to date on the impact of the shared parental leave (SPL) changes on couples' unpaid work in the long term. However the qualitative research suggests that divisions of childcare within couples may become "less tethered to traditional gender norms" with evidence of both mothers and fathers making changes to their paid work (e.g. reducing hours, seeking flexibility) to accommodate childcare post-SPL (Banister and Kerrane, 2022, p.9).

2.11 Research questions asked in this study

This literature review has shown that reduced hours flexibility is predominantly used by women and that the use of other types of such as home working and flexi-time is linked to those with certain job characteristics who are often working at the higher occupational levels. Targets aimed at increasing the use of different forms of worker-led flexibility form a key objective of government reports and organisational gender pay gap reports (Pyper, 2015; Newton *et al.*, 2018). This forms part of the overall policy aim for a move towards quality, flexible work to be the norm at all levels of an organisation and away from a work culture that may stigmatise those who use it. However, this literature review has also shown that legislative rights, organisational culture and practice, social class, gender norms and ideals may act as a barrier to the more widespread use of worker-led flexibility and therefore to greater gender equality.

In their systematic review of the flexible working literature, Bessa and Tomlinson (2017) note that much of the research to date has focused on mothers' use of flexible working with a lack of research looking at fathers' attitudes towards flexible working arrangements in the context of the reconciliation of work and care. Cook et al's (2021) recent research has also emphasised the importance of fathers in this area. Much of the research that has taken a gendered approach has tended to be cross-sectional in nature or qualitative which, while extremely valuable for generating insight and exposing nuanced relationships, is limited in its generalisability. Longitudinal studies are important to enhance understanding of major social change. While a recent CIPD (2019) longitudinal study used Labour Force Survey data to consider how the use of different UK flexible working arrangements changed over the period 2005-2017 it did not take a gendered approach its analysis. Further, the majority of the UK flexible working research

to date was carried out or used data that was collected when the right to request flexible working applied only to those with dependent children. As such there is a need for further research which considers the impact of the 2014 changes (Wheatley, 2017).

Bearing in mind the reasons informing the extension of the right to request flexible working in 2014 together with the limitations of previous studies, the first (quantitative) phase of this study asks:

- How has fathers' use of flexible working changed in comparison to mothers over the period January 2010 to December 2019?
- What evidence exists to suggest that the use of flexible working is becoming more widespread in the UK?

In single-earner parent couples the non-earning parent tends to assume the primary caring responsibility thus minimising the extent of work-family conflict for the earning parent. In contrast, dual-earner parent couples face particular challenges in managing work and home responsibilities (Masterson and Hoobler, 2015) and are at greater risk of experiencing work-family conflict. Indeed, approximately two thirds of UK parent couples are now dual-earners and this is increasing (Connolly *et al.*, 2016). This literature review has shown that worker-led flexibility has the potential to result in positive outcomes at the household level by enabling both mothers and fathers in dual-earner couples to reconcile their paid and unpaid work responsibilities more effectively.

Research to date regarding the effect of worker-led flexibility for fathers on couples' divisions of unpaid work is emergent and there is limited UK based research in this area. The past UK literature has tended to focus on the experiences of mothers and emphasises the importance of quality, flexible work for managing work-family responsibilities (Himmelweit and Sigala, 2004; Fagan *et al.*, 2014; Lyonette, 2015; Warren and Lyonette, 2018). There is however an increasing focus on fathers (Cook *et al.*, 2021), and the UK research (Radcliffe and Cassell, 2015; Walthery and Chung, 2020) suggests that certain types of worker-led flexibility may enable fathers to be more involved in the unpaid work, particularly the childcare. These studies also emphasise the importance of the inter-relations of flexibility at the couple level. For example if one parent in a couple has more flexibility than the other this may affect who takes responsibility for the unpaid work and as such how it is divided. Theories of work flexibility which look at the processes and outcomes of work-life flexibility, such as boundary management theory (Clark, 2000), have tended to focus on individual negotiation of work-life boundaries (Piszczek and Berg, 2014). It is argued that negotiation at the couple level and the associated outcomes in terms of work-life

fit of the couple is also relevant, particularly given the potential of flexible working policy to enable both mothers and fathers to make changes to their paid work to accommodate their unpaid work. Further research as to the impact of different combinations of flexibility within couples is therefore needed.

The research linking fathers' worker-led flexibility to unpaid work has tended to focus on childcare time. Housework time as well as the cognitive elements of the unpaid work cannot be ignored given that gendered divisions of housework as well as childcare are a factor that may constrain a mother's ability to spend more time in paid work. In the main, the studies presented above have looked at the impact of flexibility at the individual level in terms of the absolute, rather than the relative, effect on unpaid work of the mother or father. Such an approach does not consider the overall divisions of unpaid work within the couple. Indeed, while worker-led flexibility for fathers may increase their unpaid work time, this is inconsequential if the gap within a couple remains wide and the mother continues to do much more.

Therefore, the impact of worker-led flexibility for both mothers and fathers on the share of housework and childcare within UK dual-earner parent couples is not yet fully established and further empirical research is needed to unpick the extent to which it and other factors (e.g. individual gender role attitudes, income levels, parental leave) play a part. As a result, the main research objective of the second phase of this study is to further the understanding of how worker-led flexibility affects the unpaid work of couples in the UK. It aims to build on the research to date by asking the following questions:

- In modelling the unpaid work of UK dual-earner parent couples what patterns can be identified in how these couples divide the childcare and housework?
- To what extent do different types (and combinations) of work flexibility for both parents in UK dual-earner parent couples account for these divisions, particularly those that are more equally-shared?
- What insights can the experiences of mothers and fathers in UK dual-earner couples add to existing theories of work flexibility and how couples negotiate work-life boundaries, the operation of other macro and micro level factors alongside this and the associated outcomes for couples' divisions of unpaid work?

This chapter has reviewed the literature in detail, discussing the theoretical and empirical literature regarding the domestic division of labour. It has discussed the micro and macro level factors explaining current divisions of labour in UK couples including the role of UK work-

family policy in this regard. Next it focused on worker-led flexibility in the UK, its determinants and outcomes and potential to promote further change in terms of the divisions of unpaid work in dual-earner mixed-sex parent couples. It then reviewed the literature to date that has linked worker-led flexibility to parent couples' divisions of unpaid work. This review was used to identify the gap in the current research and present the research questions of this study. The following chapter presents the mixed method approach used in this study and provides detailed information as to how the methods were designed to answer the research questions. It covers how the data were collected and analysed as well as ethical considerations.

3 Method

The previous chapter reviewed the literature focusing on worker-led flexibility and the domestic division of labour between couples. It focused on worker-led flexibility in the UK, its determinants and outcomes and potential to promote further change in terms of the divisions of unpaid work in dual-earner parent couples. It then reviewed the literature to date that has linked worker-led flexibility to parent couples' divisions of unpaid work. The focus of the study was identified and the research questions introduced. This chapter describes and justifies the choice of a mixed methods approach and the research methods adopted. The study was split into two phases, as is this chapter. The first phase used quantitative data to explore the availability and use of worker-led flexibility and changes in the UK over the period 2010-2019. The second used quantitative and qualitative data to explore the relationship between worker-led flexibility and the divisions of unpaid work of UK dual-earner couples. Detailed information about data collection and analysis is provided.

3.1 Philosophical orientation, justification for a mixed methods approach

Positivist and interpretivist philosophies are often associated with distinct research methodologies that many believe are mutually exclusive due to “the idea that research methods carry with them fixed epistemological and ontological assumptions” (Bryman and Bell, 2007, p. 643). However, it is argued that the connection between epistemological and ontological commitments and certain research methods is not definite, and that the two research strategies can be combined into mixed methods research (Bryman and Bell, 2007). Kvale and Brinkmann (2009) adopt a pragmatic approach, taking the position that “different methods are different tools for answering different questions” (2009:117). In addition, Olsen (2012) advocates a “middle way” arguing that:

“There are no hard and fast rules about the validity of data... each researcher has to develop their own viewpoint about validity and knowledge that can be gained from research using data.” (Olsen, 2012: 17).

The overarching feminist research approach of this study and associated desire for change and practical outcomes informs a worldview of pragmatism (Creswell, 2015) which uses research approaches to best understand the problem. The strengths of quantitative data are often said to be its potential for objectivity, reliability and generalisability (Anderson, 2009). Indeed quantitative data has an important role in contributing to knowledge development and policy-making (Goldthorpe, 2004) and large scale statistical research has contributed to major developments such as an increased awareness of the gender pay gap (Oakley, 1998). However,

large-scale survey research is often criticised for its “static view of social life that is independent of people’s lives” (Bryman and Bell, 2007:174). Stoker (2003) argues that such research is preoccupied with standardised interviewing based on questions informed by theory and risks potentially ignoring valuable evidence in relation to the actual experience of people in the study. As noted by Duncan (2007), government policy makers often select evidence that is based on figures, seen to be rigorous and accurate but which offer only a single dimensional perspective of reality that does not take into account context. In the case of teenage parents, Duncan (2007:322) argues that the non-consideration of the qualitative evidence led to a “yawning gulf between the experience of teenage parenting and policy” (2007:1). The strengths of qualitative data are therefore in its potential to take account of context and offer deeper insights into people’s lived experiences; reality is subjective and a more unstructured research process allows the collection of rich data that gives meaning and understanding to a situation (Anderson, 2009).

For these reasons a mixed methods approach was adopted in this study and drew on the combined strengths of quantitative and qualitative data. Secondary quantitative data from a large-scale UK representative household panel survey and primary qualitative data from semi-structured interviews were analysed. The combination of qualitative and quantitative data in this study aimed to “draw interpretations on the combined strengths of both sets of data to understand research problems” (Creswell, 2015, p. 2). An approach that uses quantitative as well as qualitative data is increasingly recognised as being compatible with a feminist research approach (Oakley, 1998; Bryman and Bell, 2007).

Phase one of this study analysed representative survey data to build a picture of flexible working for employees in the UK. Phase two focused on dual-earner parent couples and analysed survey and interview data to explore relationships and experiences regarding the use of work flexibility and couples’ divisions of unpaid work. The following sections describe these two phases in detail and links them to the research questions they are designed to answer.

3.2 Phase one: flexible working in the UK over the period 2010-2019

As set out in Chapter 2, this phase of the study asks:

- How has fathers’ use of flexible working changed in comparison to mothers over the period January 2010 to December 2019 in the UK?
- What evidence exists to suggest that the use of flexible working is becoming more widespread in the UK?

In summary, these questions were answered by analysing data from the Understanding Society household longitudinal survey (University of Essex, 2021) using a sample of UK employees (N=7,428) who answered questions about the availability and use of flexible working arrangements at their main workplace over the period 2010-2019. Longitudinal models analysed changes over this period in the dependent (i.e. outcome) variable which was the use of flexible working. Four models analysed different versions of the dependent variable. Model 1 analysed the use of worker-led flexibility (i.e. home working, flexi-time, term-time, job share, compressed hours), Model 2 analysed the use of other types of flexibility (part-time, annualised hours, zero hours, on-call and other types), Model 3 analysed the use of full-time flexibility (i.e. home working, flexi-time, compressed hours) and Model 4 analysed the use of reduced hours flexibility (i.e. part-time, term-time, job share). The independent (i.e. predictor) variables included both individual and job characteristics, for example, gender, parenting status, organisational sector and job class. The sample characteristics and model results are presented in Chapter 4.

The following sections provide more detailed information regarding the choice of dataset, how the sample of employees was selected, the survey questions that were used in operationalising the dependent and independent variables and how the longitudinal models were built.

3.2.1 Choice of dataset

The analysis of large-scale survey data that is designed to be representative of the UK was identified as the most appropriate means of answering the research questions in this phase of the study. The use of secondary data allows the researcher access to high-quality survey data while keeping time and costs to a minimum (Bryman and Bell, 2007) and findings from data that is representative may be generalised to the UK population and contribute to policy-making via an enhanced understanding of the effect of macro-level changes (i.e. the extension of the right to request to flexible working to all in June 2014).

A number of surveys ask questions regarding the use of the various forms of flexible working arrangements. For example large-scale surveys such as the most recent Work and Employment Relations Survey (Wanrooy *et al.*, 2013) and the Time Use Survey 2014-15 (Gershuny and Sullivan, 2017). In addition, the most recent Work-Life Balance Study (WLBS) (Tipping and Perry, 2012) contains uptake and availability information but also more detail on the attitudes and behaviours of employers and the barriers to flexible working. However, while WERS and the Time Use Study are large-scale representative surveys, they are cross-sectional only and do not allow for the examination of changes over time. In addition, while the WLBS contains

valuable, detailed information, this is also cross-sectional and its small-scale nature means that the opportunities for analysis are limited (Tipping and Perry, 2012). While the ongoing Quarterly Labour Force Survey (ONS, 2011) provides some access to longitudinal data it follows a rotating sampling design, whereby a household, once initially selected for interview, is only retained in the sample for a total of five consecutive quarters.

The Understanding Society household panel survey (University of Essex, 2021) was chosen as the most appropriate secondary dataset for answering these research questions given its large-scale longitudinal nature which provides a sufficient number of cases for a range of analyses and allows for the examination of changes over time. The sample is a clustered and stratified random sample designed to be representative of the UK population (Lynn, 2009). The survey started in 2009 and interviewed approximately 40,000 households in the UK. Interviews take place every year, i.e. it is a rolling panel design which contains information on various aspects of their lives, including income levels, education, attitudes, working conditions and working patterns (including work flexibility). The survey comprises a household interview with one adult household member and separate interviews with each person over 16 in the household. These questionnaires are administered using Computer Assisted Personal Interviewing (CAPI) or in some cases Computer Assisted Telephone Interviewing (CATI). A self-administered questionnaire for each 10-15 year old in the household is also requested.

The Understanding Society survey is highly regarded by researchers and as noted by Buck and McFall (2012, p. 16) “every effort is being made to conduct the study to the highest standards of best practice in the methodology of conducting longitudinal surveys”. It must however be noted that response rates are declining for surveys in general (Lowthian, 2020) which can contribute to the under and over-representation of certain groups in the sample. For example, the overall response rate to the survey sample was 57.2% in 2009 which, when compared with the Labour Force Survey statistics, was found to have a higher proportion of female participants and children under 16 and a lower proportion of those over 65 and those in paid employment (Buck and McFall, 2011). Bianchi and Biffignandi (2017) had similar findings and when looking at the period 2010 to 2012 found under-representation in certain subgroups such as the 16-25 age group, single respondents and those with no qualifications. While these differences are statistically significant, due to the large number of cases, they are small differences when looking at actual percentages (Buck and McFall, 2012; Bianchi and Biffignandi, 2017) yet must be taken into account when considering the findings of a study. The potential for the over-representation of female participants and under-representation of those in paid employment is particularly relevant to this study. Indeed, weighting adjustments are recommended (Kaminska and Lynn,

2019) to take into account unequal selection probabilities due to the stratified and clustered sample, and differential non-response and potential sampling error. These are calculated by the survey designers following collection of the data and the relevant weights have been included in the analyses of this study.

3.2.2 The Understanding Society sample of UK employees

The relevant data on flexible working arrangements (FWA) were obtained from responses to the adult main interview which includes a work conditions module that is asked every two years (currently available for waves 2, 4, 6, 8 and 10). Five waves of data were therefore available to be analysed, covering the period January 2010 to December 2019. For example, the first wave (2) used relates to interviews conducted in the period January 2010 to December 2011 and the final wave (10) relates to interviews conducted in the period January 2018 to December 2019. The data were downloaded from the UK Data Service website (<https://www.ukdataservice.ac.uk/>). As this element of the study was an analysis of secondary data, ethical approval was not required.

Due to the interest in the change in use of flexibility more generally as well as in the use by fathers and mothers, all survey respondents who answered that they were employed (rather than self-employed) in their main job were eligible for inclusion in the sample in this study. While the self-employed may also have flexibility in their jobs as briefly discussed in Chapter 2, those respondents who were self-employed in their main job were not asked the flexible working questions in the work conditions module therefore it was not possible to include them in this sample. Selection of the sample in this way excluded employees who were unemployed at the time of the interview or out of work for other reasons including taking time out on family leave which is likely to include more mothers than fathers. However, the sample included mothers on maternity leave as they would still have been classed as employed for the survey's purposes and have been asked what flexibility was available to and used by them. The sample therefore is likely to better represent those who did not have long breaks from employment during the period 2010 to 2019.

A total of 96,780 observations of flexible working were available across the five waves for a total of 42,385 employees. The appropriate longitudinal weight (to take into account the stratified, clustered design of Understanding Society as well as differential non-response) was chosen after consulting the survey guide and frequently asked questions document (Kaminska and Lynn, 2019). Applying the survey weights essentially meant that a balanced panel was retained for the purposes of the analysis, i.e. those participants (7,428 out of 42,385 in total) who responded to each of the five waves were included. While the weight applied is in fact a suboptimal weight

due to the non-standard combination of waves, given the large sample size this should not be a cause for concern (Kaminska and Lynn, 2019). The analyses with and without the weight were run and compared and the overarching interpretation was found to be the same.

3.2.3 Operationalising flexibility

3.2.3.1 *Formal flexible working arrangements*

The relevant data on flexible working arrangements (FWA) were obtained from responses to the adult interviews which include a work conditions module every two years (currently available for waves 2, 4, 6, 8 and 10). Questions asked about FWA (in the respondent's main job only).

Responses from the following two survey questions were used to operationalise the availability and use of more formal flexibility in the workplace, i.e. those regular working arrangements which would require employer or line manager agreement, often as a result of a formal request which may lead to changes made to the employment contract:

“I would like to ask about working arrangements at the place where you work. If you personally needed any, which of the arrangements listed on the card are available at your workplace?”

Respondents interviewed in person were shown cards with each of the forms of FWA whereas the categories were read out to those who were interviewed over the phone. The choices offered were: part-time working, term-time only, job sharing, flexi-time, compressed week, annualised hours, regular homeworking, other flexible working arrangements; none of these. In waves 8 and 10 two further choices were given: zero hours work and on-call working. Respondents were able to select as many options as they liked.

Those respondents who indicated that they had at least one of the flexible working options available at their workplace were then asked the question:

“Do you currently work in any of the following ways, if so which ones?”

The response categories were the same as those for the previous question.

It is not clear what types of flexible working are included in the “other flexible working arrangement category” and inspection of the survey documents did not yield further information. This may include time off in lieu (as suggested by Pyper, 2015) or staggered hours, self-rostering or shift-swapping (Chartered Institute of Personnel and Development (CIPD), 2021). It may also include zero-hours work or on-call working, which did not have their own categories in wave 6 and earlier. The uptake of more than one flexible working option was

possible and indeed a number of respondents worked in more than one of the ways mentioned. For example, those working part-time sometimes also job shared.

Binary variables were created to represent the availability and use of each separate type of formal FWA for each of the five waves of the survey for the purpose of the descriptive statistics presented in Chapter 4. Regarding inclusion in the models, the analysis focused on worker-led flexibility however as discussed in Chapter 2, worker-led and organisation-led FWA may not always be easily distinguishable. This is particularly an issue for part-time work which may fall into the organisation-led category (e.g. organisation decides shift patterns in retail based on busy periods) or the worker-led category (e.g. a previously full-time employee applies to reduce their hours to accommodate childcare). The survey questions described above simply ask respondents to indicate if they worked part-time (defined as less than 30 hours a week) therefore for the purposes of inclusion in the models, different versions of the dependent variable were created. These distinguished between FWA that it is argued are more clearly worker-led, i.e. the use of flexi-time, home working, compressed hours, job share and term-time only working (Fleetwood, 2007; Jeffrey Hill et al, 2008) and those FWA for which it is less clear, i.e. the use of part-time work, the “other” categories of FWA as well as zero hours contracts and on-call working which would tend to be seen as organisationally-led rather than worker-led (Fleetwood, 2007, Rubery et al, 2016). In addition, given the findings in the literature that reduced hour flexibility may be more resistant to ideal worker norms (Michielsen et al, 2013; Cook et al, 2021), two further versions of the dependent variable were created to distinguish between FWA associated with full-time flexibility and FWA associated with reduced hour flexibility

3.2.3.2 Informal flexible working arrangements

Responses to the following survey question were used to operationalise the availability of more informal arrangements which are more irregular, used as and when required:

“Aside from any formal arrangements for flexible working you have, are you able to vary your working hours on an informal basis, for example by re-arranging your start or finish times if you need to?”

Respondents were able to choose from options “yes”, “no” or “sometimes”. There was no corresponding survey question asking respondents whether they had used or how often they were able to use such informal arrangements. A binary variable was created to represent the availability of informal FWAs (combining the “yes” and “sometimes” categories to indicate that informal FWAs were available) for each of the five waves of the survey.

3.2.3.3 *Missing data*

Missing data at the item level was identified. For example, in wave 2, of the 7,428 employees there were 276 employees (3.7%) who did not have information on availability or use of FWA. The majority (224) of these were proxy respondents who were not asked the work conditions questions with the remaining 52 being “don’t know” or “refused”. On further examination it was noted that these proxy respondents were more likely to be men which is indicative of the over-representation of female participants in the Understanding Society survey mentioned above. However, while men were more likely to have missing data on FWA than women, there was no cause to believe that those with or without flexibility were more or less likely to answer this question. Data were therefore assumed to be missing at random. An imputation model was considered however this was rejected given that the missing data represented a small proportion overall and that imputing (i.e. estimating) the missing values for FWAs (the dependent/outcome variable) would involve using the same variables as in the analytical model. This means that if an employee is missing data on FWA (or any other variable) in a particular time period that observation will be excluded from the model estimation (i.e. list wise deletion) however if there are other time periods where details of FWA are available for this employee they would be included in the model estimation.

3.2.4 Operationalising individual and job characteristics

3.2.4.1 *Caring responsibilities*

A binary variable was created for sex with male as the reference category. This was in response to the survey question which asked for details of a respondent’s sex with answers being “male” or “female”. For the purposes of this study no distinction is made between sex and gender identity as this information was not available in the survey, i.e. it is assumed that respondents identified with the same gender as that of their sex registered at birth.

To reflect parenting responsibilities, a binary variable was created for parents using a question in the dataset which asked the respondent for details of their own dependent children living in the household. This survey question used the Department of Work and Pensions definition of a dependent child (i.e. a parent of a child aged under 16 or child aged 16-19 in full-time education). Respondents were classed as parents if they had at least one dependent child living with them. To examine differences between fathers and mothers in the models, an interaction variable was created which combined the sex variable with the parent variable.

Due to the initial right to request legislation before 30 June 2014 applying only to those with caring responsibilities, it is expected that being a carer (other than parents) may also be an important predictor of flexible working arrangements. A binary variable was also created for

carers from positive responses to either of the following questions (with the reference category including those with no such caring responsibilities):

“Is there anyone living with you who is sick, disabled or elderly whom you look after or give special help to (for example, a sick, disabled or elderly relative/husband/wife/friend etc.)?”

“Do you provide some regular service or help for any sick, disabled or elderly person not living with you?”

3.2.4.2 *Social class*

Social class is a broad concept which research has measured in different ways. Most often in social science research this has included consideration of occupational prestige, educational attainment and income (Diemer *et al.*, 2013). The literature indicates that jobs in which an employee has control over how the work is done may be more suited to FWA, particularly flexi-time and home working; high trust high autonomy roles which may be more likely in professional and managerial occupations (Hyman, Scholarios and Baldry, 2005; Ba', 2014). In contrast, routine, manual and customer service work often requires presence at specific shifts (Cook *et al.*, 2021). Further, Tipping and Perry (2012) found that those with higher qualifications were more likely to work at home but those with lower qualifications often worked part-time. However, in terms of FWA, occupational prestige is not always in line with education; many well-qualified mothers have accepted lower paid and low status jobs in order to combine paid work and family responsibilities (EHRC, 2009; Cahusac and Kanji, 2014).

To reflect these potential differences, variables were created from the survey data to represent socio-economic status and educational attainment. A survey-derived variable (i.e. a measure created by the survey designers using various information provided by the respondent) was used which is based on the National Statistics Socio-economic Classification that has been validated as a measure and distinguishes different positions as defined by social relationships in the workplace (Office for National Statistics, 2010). This measure takes into account occupation but also the type of work that is done, how it is remunerated, whether the individual is a supervisor; and the number of employees at a workplace. To represent educational attainment a truncated categorical variable was created from the survey question which asked “Can you tell me the highest educational or school qualification you have obtained?” with no qualifications as the reference category.

A variable for job autonomy was also included which was created from five questions in the main survey which were worded as follows:

“In your current job, how much influence do you have over: the pace at which you work/what tasks you do in your job/how you do your work/the order in which you carry out tasks/the time you start or finish your working day?”

Four choices were given: “a lot”, “some”, “a little”, or “none”. A composite “autonomy” variable was created from these responses which had three categories indicating low (i.e. little or none), medium and high levels of autonomy.

3.2.4.3 *Work characteristic variables*

As discussed in Chapter 2, some organisations chose to offer the right to flexible working to all employees well before the extension of the statutory right in 2014. For example, the Public Sector Equality Duty (PSED) came into force in 2011 and may mean that FWAs are more widely available, and more widely used, in the public sector. FWA often form part of the bundle of formal policies offered by large organisations who adopt High Performance Work Practices (Hutchison, 2013), with more informal flexible arrangements likely to be offered by smaller organisations (Maxwell *et al.*, 2007; CIPD, 2012).

Organisational size can be measured in various ways for example by level of turnover or number of employees. Due to the absence of other data in the survey specific to the employing organisation, size was operationalised based on the number of employees as reported by the respondents in the survey in response to the question:

“How many people does your organisation employ?”

Respondents were given 11 different categories. However, for ease of interpretation and modelling this was truncated into a variable with five categories; these ranged from the reference category of organisations with under 10 employees to those with over 1000 employees.

Organisational sector was operationalised from respondent answers to the question:

“Do you work for a private firm or business or other limited company or do you work for some other type of organisation?”

Respondents selecting “some other type of organisation” were then asked to identify which sort, choosing from: central government or civil service; local government or council (including police, fire services and local authority controlled schools/colleges); universities or other grant-funded education establishments; health authorities or NHS trust; charities, voluntary organisations; some other kind of public organisation. A seven category variable was created from the responses to this question.

3.2.4.4 *Control variables*

Age is a determinant of worker-led flexibility (Jeffery Hill et al, 2008), particularly with regard to employees approaching retirement who may phase down their hours or seek flexibility to manage grand-parenting or other caring commitments for example (Atkinson and Sandiford, 2016; Wildman, 2020). A categorical age group variable was therefore created with the reference category being the youngest employees (i.e. under 25s).

Location and transport links may also be determinants of worker-led flexibility (Jeffrey Hill et al, 2008) and reducing travel time or avoiding traffic was one of the reasons cited for working flexibly in the UK Work Life Balance Survey (Tipping and Perry, 2012). A categorical control variable was therefore created to represent the regions e.g. South East England, London, Scotland, North West England with Northern Ireland as the reference category.

While some missing data at the item level for the independent variables was identified this was not a cause for concern as it represented a small percentage of the sample. For example, in the first wave of data, the job class variable had the highest level of missing data however this was only for 38 out of the 7152 employees who had information on the dependent variable (i.e. less than 1%).

3.2.5 *A multi-level logistic longitudinal approach*

Longitudinal models analysed changes over the 2010-19 period in the dependent (i.e. outcome) variable which was the use of flexible working. Multi-level logistic models were the most appropriate method given the presence of a binary dependent variable and the clustering effect within individuals due to multiple measurements over time for the same person. This clustering effect must be accounted for to reduce the presence of bias in the model results (Singer and Willett, 2003; Sommet and Morselli, 2017).

To distinguish between worker-led flexibility and other types of flexibility that are less clearly worker-led, as well as full-time flexibility versus reduced hours flexibility, four models analysed different versions of the dependent variable. Model 1 analysed the use of worker-led flexibility (i.e. home working, flexi-time, term-time, job share, compressed hours), Model 2 analysed the use of other types of flexibility (part-time, annualised hours, zero hours, on-call and other types), Model 3 analysed the use of full-time flexibility (i.e. home working, flexi-time, compressed hours) and Model 4 analysed the use of reduced hours flexibility (i.e. part-time, term-time, job share). The same independent variables were included in each model to enable to comparisons to be made. This is summarised in Table 3.1 below.

Table 3.1: Summary of the variables included in the multilevel longitudinal models in phase 1

<i>Dependent variable</i>	<i>Definition</i>
Use of worker-led flexibility (Model 1)	Binary variable = 1 if answered yes to using either regular home working, flexi-time, term-time, job share, compressed hours
Use of other types of flexibility (Model 2)	Binary variable = 1 if answered yes to using either part-time work, annualised hours, zero hours, on call or other types of flexibility
Use of full-time flexibility (Model 3)	Binary variable = 1 if answered yes to using either regular home working, flexi-time or compressed hours
Use of reduced hours flexibility (Model 4)	Binary variable = 1 if answered yes to using either part-time, term-time or job share
<i>Independent variable (included in all models)</i>	<i>Definition</i>
Time	Continuous variable ranging from 1 to 5
Sex	Binary variable = 1 if female
Parent	Binary variable = 1 if has a dependent child in the household
Carer	Binary variable = 1 if regularly care for someone (other than a child) in or outside household
Education	Four category variable with “no qualifications” as the reference category.
Job class	Four category variable based on the National Statistics Socio-economic Classification with “routine and semi-routine” work as the reference category.
Job autonomy	Three category variable with “no or little autonomy” as the reference category
Number of employees in organisation	Five category variable with “under 10 employees” as the reference category.
Organisational sector	Seven category variable with “central government or civil service” as the reference category.
Region	Twelve category variable with Northern Ireland as the reference category.
Age	Six category variable with “under 25s” as the reference category.

The multilevel logistic (*melogit*) command in Stata version 14 (StataCorp, 2015) was used due to its compatibility with the use of weighting for complex survey design (Williams, 2017a). In accordance with the guidance in Singer and Willett (2003) and Sommett and Morselli (2017), first, for each of the four models, an empty model with only the dependent variable but no independent variables (predictors) was run. Second, for each model, the time variable was added; this was treated as continuous. This model was compared to a model which estimated the random slope variance of time to see if this addition improved model fit. The deviance of the two models was compared and a likelihood ratio test performed. In all four models the deviance of the random slope model was significantly lower than the deviance of that without (i.e. including a random slope for time significantly improved the fit of the models) therefore a

random slope was retained (Sommett and Morselli, 2017). Following this the independent variables were added on a stepwise basis together with their interactions with time. This enabled the log likelihood, Akaike Information Criterion (AIC) and Bayesian Information Criterion (BIC) at each step to be noted and as such for model fit to be assessed. The gender and parent variables were first added together with their interaction variable. A three-way interaction (*gender*parent*time*) was included which enabled examination of the differences between fathers and mothers in 2010-11 and their changes over the period 2012-2019 (in line with the first research question of this phase of the study). Finally, the remaining independent variables and their interactions with time were included which enabled examination of the differences between other groups in 2010-11 and their changes over the period 2012-2019 such as employees in the public and private sector and those working at different jobs levels (in line with the second research question of this phase of the study). Results from the models are reported in Chapter 4.

3.3 Phase two – work flexibility and divisions of unpaid work in dual-earner parent couples

As set out in Chapter 2, this second phase of the study asks:

- In modelling the unpaid work of UK dual-earner parent couples what patterns can be identified in how these couples divide the childcare and housework?
- To what extent do different types (and combinations) of work flexibility for both parents account for these divisions, particularly those couples where the childcare and housework is more equally-shared?
- What insights can the experiences of mothers and fathers in UK dual-earner couples add to existing theories of work flexibility and how couples negotiate work-life boundaries, the operation of other macro and micro level factors alongside this and the associated outcomes for couples' divisions of unpaid work?

In summary, these questions were answered by analysing secondary survey data and primary interview data. The survey data came from the Understanding Society household longitudinal survey (University of Essex, 2021) and used a sample of UK dual-earner couples (N=3,851) who answered questions about their divisions of housework and childcare. Latent class analysis was used to identify patterns of couples' unpaid work across five time points covering the period 2010 to 2019. Two multinomial logistic regression models were then used to explore the extent to which the use of work flexibility of mothers and fathers was related to their patterns of unpaid work. The interview data came from interviews conducted with mothers and fathers (N=19) in

dual-earner couples in Scotland which took place during the period April to October 2019. A descriptive, interpretive and reflexive approach was used to analyse the qualitative data and identify key themes.

These methods drew on the advantages of a mixed methods approach which gave a more multi-dimensional perspective of reality (Duncan, 2007) that was able to take into account both the patterns shown in the representative survey data and the different contexts and experiences of dual-earner couples using the interview data. Indeed, interview data are “particularly well-suited for studying people’s understanding of meanings in their lived world, describing their experiences and self-understanding, and clarifying and elaborating their own perspective on their lived world” (Kvale and Brinkmann, 2009, p. 116). The interview also “allows insight into mechanisms, processes, reasons for actions and social structures” (Olsen, 2012:35). This gave meaning and understanding to the results of the quantitative analysis (Anderson, 2009) and went further in allowing issues to be explored that were not possible using the survey data.

The following sections provide more detailed information regarding the data used. First, with regard to the quantitative data the following section covers the choice of dataset, how the sample of employees was selected, the survey questions that were used in operationalising divisions of unpaid work, the independent variables included in the models and how the analytical models were built. Second, with regard to the qualitative data, the subsequent section includes details of how the interview participants were recruited, the interview design, the sample characteristics and how the interview data were analysed.

3.3.1 The Understanding Society sample of UK dual-earner parent couples

Background details regarding the Understanding Society (University of Essex, 2021) survey are already provided above (section 3.2.1). This is a household survey which means that all respondents in a sampled household are interviewed which includes both members of a cohabiting couple whose responses can be paired within the dataset. Due to the particular research interest in dual-earner couples this survey offers promising analytical opportunities. The Understanding Society survey was identified as the most appropriate dataset for answering the research questions given it has survey responses on work flexibility, paid and unpaid working hours and it also, importantly, provides this information for both members of a cohabiting couple. Its design also allows for the examination of changes over time.

Data from the survey were used to obtain a sample of UK dual-earner parent couples in the UK. As for details of flexible working arrangements discussed earlier, questions regarding the unpaid work of couples were first asked in wave 2 of the study (this relates to data collected in the

period 2010-11) and subsequently in waves 4, 6, 8 and 10 (covering periods up to 31 December 2019) meaning that five time periods of data were available.

To obtain a sample of dual-earner parent couples, couples living together (i.e. either married or cohabiting) in 2010-11 were matched using the household relationship information available in the survey which resulted in 37,312 observations (18,656 couples) for which both members of the couples had given an individual interview. Of these, 14,876 (7,438 couples) had at least one dependent child under the age of 16. Dual-earner couples (i.e. those where both parents were currently employed or self-employed) were retained. As discussed in Chapter 2, same sex couples were excluded due to difficulties in modelling and differences regarding unpaid work found in past research. This left 3,851 cohabiting, male/female couples with at least one dependent child under the age of 16 where both father and mother were either employed or self-employed in 2010-11. Of these 3851 dual-earner couples, 1946 responded to all five waves of the survey with 3,182 responding to two or more waves. Due to item-level missing data and contested reporting of unpaid work between couples in the same household (this is discussed further below) all 3,851 couples were retained for the purposes of the analysis in order to maximise the use of the available data.

3.3.2 Operationalising the unpaid work of couples

Variables were created for both mothers and fathers from responses to the following survey questions:

3.3.2.1 *Weekly housework hours*

This continuous variable used self-reported housework hours by each member of the couple in response to the survey question: “About how many hours do you spend on housework in an average week, such as time spent cooking, cleaning and doing the laundry?”

Table 3.2 summarises weekly housework hours for 2010-11. Mean housework was 6.2 hours a week for fathers with the mean hovering around 6 hours a week for later years. Mean housework hours was 15 hours a week for mothers in 2010-11, with a small decrease each wave so that by 2018-19 it was 13 hours a week. Some extreme values were noted in both fathers and mothers reporting of weekly housework hours however these were small in number and did not appear to unduly influence the mean. This shows an average housework hours gap of just under 9 hours a week between mothers and fathers which is broadly in line with the gap identified by other studies (Kan and Laurie, 2016; Hupkau and Petrongolo, 2020).

Table 3.2: Reported weekly housework hours in UK dual-earner couples with dependent children (2010-11)

		Mean	SD	CI	CI
Weekly housework hours	Fathers	6.2	5.8	5.9	6.4
	Mothers	15.0	8.8	14.6	15.4

Source: Understanding Society, wave 2 data, 2010-11. Variables are weighted using the appropriate cross-sectional individual weight for wave 2 data (indinub_xw). Unweighted N is 3,292 for fathers and 3,744 for mothers.

3.3.2.2 Divisions of cooking, cleaning and childcare

Eight different survey questions regarding divisions of unpaid work were asked of both members of a couple in the adult interviews. These includes questions around the division of cooking, cleaning, ironing, shopping, DIY, gardening, finances and childcare between a couple which were worded as follows:

“Now for some questions about who does what in your household? Could you please say who does the following tasks in your household, for example:

- Who does the cooking?
- Who does the cleaning and hoovering?
- Who is mainly responsible for looking after the children?”

Both respondents in the couple were asked these questions. Response options were: “mainly self”, “mainly partner”, “mainly shared” or “mainly someone else”. The questions did not ask how much of a couple’s time was spent on each activity, just how shared or otherwise they felt it was. The number of fathers choosing “mainly self” and of fathers and mothers choosing “mainly someone else” was very small therefore these answers were included in a “mainly shared or other” category. Binary variables for each activity for both fathers and mothers were therefore created with “mainly female” as the reference category, the aim being to distinguish between those households with mother-dominant divisions of unpaid work and those with non-mother-dominant arrangements which include mainly male, other and shared divisions.

A decision to create variables from the questions regarding divisions of cooking, cleaning and childcare was taken following a separate analysis of diary data using the Time Use survey 2014-2015 (Gershuny and Sullivan, 2017). This is presented in section 3.3.2.4 below and suggests that these are the unpaid work activities on which dual-earner couples spend the largest chunks of their time.

3.3.2.3 Contested divisions and missing data

Table 3 presents these binary variables for mothers and fathers for 2010-11. On average, mothers appear less likely than fathers to say that an activity is mainly shared (and therefore more likely to say it is mainly them who does it). Indeed, in matching the responses by couples in households, disagreements were noted. The highest levels of disagreement were in relation to divisions of childcare where 443 of the couples in 2010-11 disagreed as to whether the childcare was mainly female or mainly shared/other with similar levels of disagreement found for other years.

Table 3.3: Proportion of mothers and fathers who reported mainly sharing of unpaid work in UK dual-earner couples (2010-11)

		Prop.	SE	CI	CI
Childcare (% shared)	Fathers	54.3%	1.3%	51.7%	56.9%
	Mothers	44.2%	1.2%	41.9%	46.5%
Cooking (% shared)	Fathers	46.5%	1.2%	44.1%	48.8%
	Mothers	37.5%	1.1%	35.3%	39.7%
Cleaning (% shared)	Fathers	45.7%	1.3%	43.2%	48.2%
	Mothers	35.1%	1.1%	33.1%	37.3%

Source: Understanding Society, wave 2 data, 2010-11. Variables are weighted using cross-sectional weight for wave 2 data (indinub_xw). Unweighted N is 3,309 for fathers and 3,752 for mothers for each of the measures above with the exception of childcare where it is 3,241 for fathers and 3,693 for mothers.

As can be seen from the notes underneath the above tables 3.2 and 3.3, there are missing responses at the item level for the housework and divisions of unpaid work variables. This was more frequent for fathers than mothers, a consistent pattern across all measures of unpaid work and across all five time periods which is explained by men being more likely than women to be proxy respondents who were not asked the unpaid work questions. This is already discussed above in phase 1 of the study in the context of the flexible working variables (section 3.2.3.3) and again while men were more likely to have missing data on the unpaid work variables than women, there was no cause to believe that men with higher or lower levels of unpaid work were more or less likely to answer this question. Data was therefore assumed to be missing at random. Again, an imputation model was considered however this was rejected given that imputing the dependent variable would involve using the same variables as in the analytical model.

In view of the greater levels of missing unpaid work data for fathers and the potential for contested divisions of unpaid work between couples in the same household, all available measures of unpaid work from all five time periods were included in the analysis. This maximised the use of the available data for both mothers and fathers in measuring patterns of how couples divide the housework and childcare. For example, if the unpaid work data was missing for one or both members of the couple in one time period, it was often available at other time periods. Indeed, there were only four couples who had missing data on all the unpaid work variables for all time periods and who were not included in the final models of unpaid work.

In summary, the unpaid work of couples was operationalised using a continuous variable for housework hours and three binary variables representing the extent to which childcare, cooking and cleaning was shared or mother-dominant. These variables for both fathers and mothers at five different time points were included in the latent class model that is described in section 3.3.4.1 of this chapter. The latent classes then represented the dependent variable (i.e. outcome) in the multinomial model described in section 3.3.4.2.

3.3.2.4 The Time Use Survey 2014-15

As mentioned above, time use data were used for triangulation purposes and to inform modelling decisions made regarding the measures of unpaid work. The 2014-2015 UK Time Use Survey (Gershuny and Sullivan, 2017) is a multi-stage, stratified random sample of UK households. It is a cross-sectional survey for which the data were collected in the period April 2014 - December 2015 from a sample of UK individuals. The survey comprises responses to a household questionnaire from one person in the household and an individual questionnaire completed by all members of the household aged 8 years and older. The questionnaire responses were collected via either face-to-face or telephone interviews.

Those aged 8 and over were also asked to complete a diary recording their activities which covered two 24 hour periods; one on a weekday and one on a weekend day. Those who did any paid work, including self-employed work or work for a family business (including second and one-off jobs) in the week they completed their diary were also asked to complete a seven day work schedule. A total of 9,388 individuals in 4,238 households provided 16,553 diary days.

Following a similar approach to that used to obtain a sample of dual-earner parent couples from the Understanding Society survey data mentioned in section 3.3.1 above, a sample of dual-earner parent couples was obtained from the time use data. Cohabiting couples were matched at the household level based on the relationship information given during the survey stage of the data

collection. Again, using the relationship information provided, couples who were living with at least one child aged under 16 were identified and of these, those who were currently employed or self-employed were retained. The individual survey information for each of these dual-earner couples was merged with the available diary entries. This left a total of 861 couples, of whom 741 had complete interview and diary data with the remaining 120 having data missing from either the diary or interview.

A measure of weekly housework hours is available from questions asked of both members of a couple in the adult interview. The individual survey interview asked:

“About how many hours did you spend doing housework (or helping with housework) last week, such as time spent cooking, cleaning and doing the laundry (please exclude time spent in childcare, DIY and domestic-related travel)?

Weekly housework for fathers were found to be 5.5 hours (CI: 5.0-6.1) and 16.1 hours (CI: 15.1-17.0) for mothers which is also broadly in line with the Understanding Society data presented above (section 3.3.2.1) but with slightly lower estimates for fathers’ weekly housework hours and slightly higher estimates for mothers’, suggesting an average housework hours gap of just over 10 hours a week.

Turning to the diary data, unpaid work reported in the diary data is separated into individual categories and includes all time recorded in connection with cooking, cleaning and laundry but also gardening, repairs, shopping-related activities, bill paying, care for children and other adults in the household. The time reported in the diaries by the sample of dual-earner couples in 2014-15 is presented in Figure 4 for working days and Figure 3.2 for non-working days below. These figures show the time reported by mothers and fathers under each available sub-category, for example “childcare time” includes both the physical care and supervision of a child as well as feeding, teaching, playing and accompanying the child. Note that for those respondents whose two completed diary days were both working (i.e. time spent in employment or self-employment) days or both non-working days, the average time spent on housework and childcare over the two diary days is reported.

On working days (Fig.3.1) it appears that mothers, on average, spend more than double the amount of time on many of the household tasks than fathers however this average gap decreases on non-working days as shown in Figure 3.2. Mean daily total household and childcare time is 3.2 hours (CI 2.9-3.5 hrs) for mothers and 1.4 hours (CI 1.3-1.6 hrs) for fathers on working days. For non-working days the mean is 5.1 hours (CI 4.7-5.5 hrs) for mothers and 4.0 hours (CI 3.8-

4.3 hrs) for fathers. Childcare, food management (i.e. cooking, dish washing), household upkeep (cleaning) and shopping appear to take up the largest chunks of time reported for both parents on both working and non-working days.

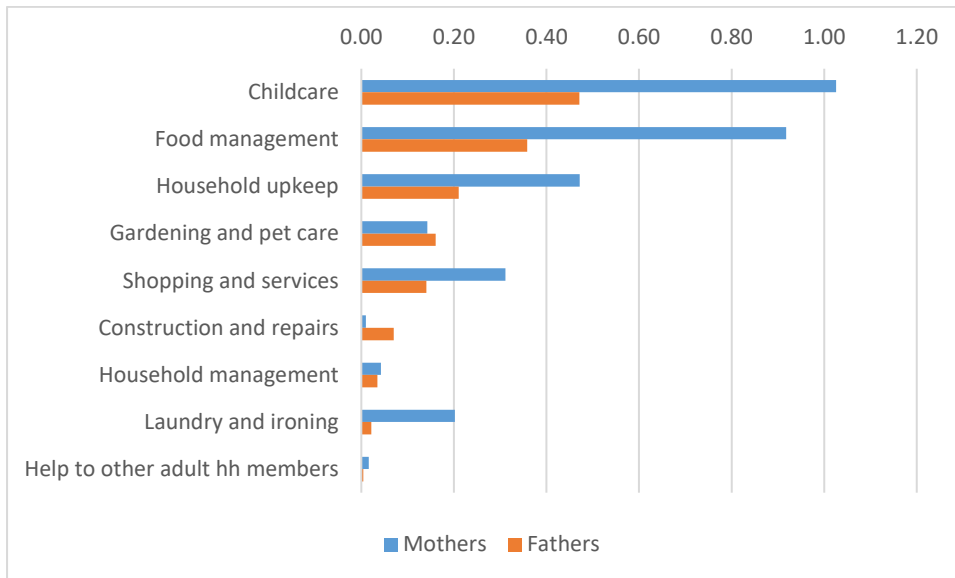


Fig. 3.1: Daily unpaid work hours for mothers and fathers in dual-earner couples on working days (Source: Time Use Survey 2014-2015, mothers and fathers in dual-earner couples with at least one dependent child, Weighted N = 587 for fathers, 433 for mothers. Working days refers to time spent in paid work, either employment or self-employment)

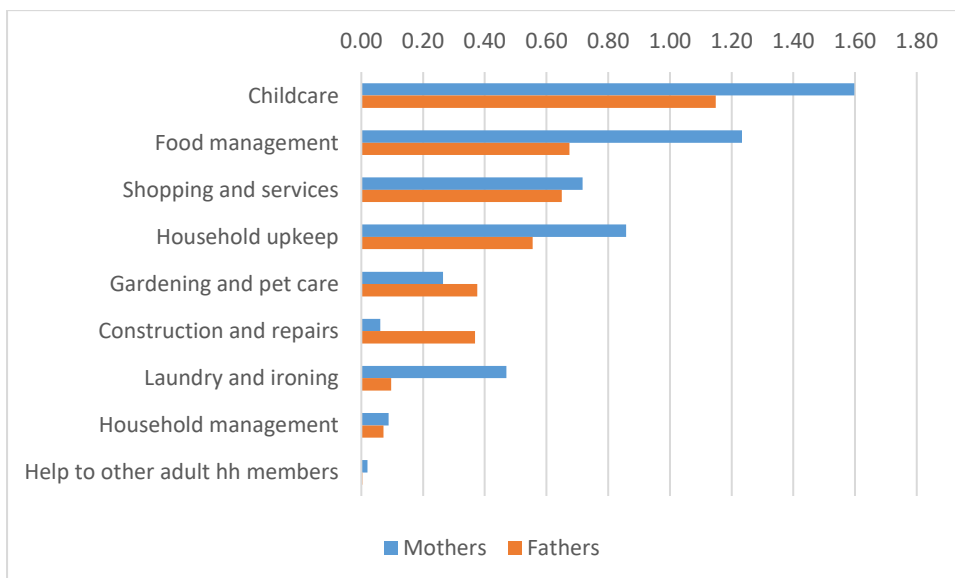


Fig. 3.2: Daily unpaid work hours for mothers and fathers in dual-earner couples on non-working days (Source: Time Use Survey 2014-2015, mothers and fathers in dual-earner couples with at least one dependent child, Weighted N = 536 for fathers, 585 for mothers)

Using the diary data, the time spent on household care and that on childcare by fathers was divided by the time spent by mothers for both working and non-working days. A fraction of 0.7 or greater was used as an indicator for whether the division of labour might be interpreted as “mainly shared”. In this small sample the results (see Appendix 3) suggest that a greater proportion of couples fall into the “mainly shared” category for both household care (54%) and childcare (37.6%) on non-working days compared to working days where the proportion is 35.2% and 25.6% respectively. Part of the contested division of unpaid work (i.e. the disagreements between couples highlighted in the Understanding Society data above, section 3.3.2.3) may therefore, in part, be due to differences between the amounts of unpaid work done by mothers and fathers on working and non-working days.

In summary, weekly housework hours reported by the dual-earner parent couple sample in the Time Use survey data are broadly similar to those reported by the Understanding Society sample and as such are useful for triangulation purposes. The diary data provide valuable insight into the unpaid work activities that UK dual-earner couples spend the most time on (childcare, food management and household upkeep) which has informed the selection of these variables into the models of unpaid work used in this study. While the Time Use survey data provides a more nuanced picture of couples’ divisions of unpaid work it offers only a small cross-sectional sample of UK dual-earner couples whereas in comparison the Understanding Society survey provides a much larger sample as well as longitudinal data which are useful in the light of the missing data issues and contested divisions of unpaid work mentioned above. The Time Use data have informed the choice of variables on which to focus however the Understanding Society data have been used in the models in this study.

3.3.3 Operationalising individual and household characteristics

3.3.3.1 *Work flexibility*

Measures of flexibility, the key independent variables, were created for both parents from the same Understanding Society questions used in phase one of this study (section 3.2.3 above). Given previous research findings (Kim, 2020; Kurowska, 2020) that different types of flexibility may result in different outcomes in terms of unpaid work, the individual forms of flexibility where the group sizes were sufficiently large (to be included in the models) were focused on, i.e. the use of flexi-time, home working, part-time and availability of informal flexibility. A separate variable to control for the self-employed was also created given the possibility that some self-employed parents may have similar flexibility to employees (e.g. in terms of when and where they work) depending on the nature of their paid work.

3.3.3.2 Gender role attitudes, education and job class

The literature suggests that gender role attitudes are one of the sociological factors that affect the domestic division of labour in a couple household (Hook, 2006; Kan, 2008a; Sayer *et al.*, 2009; Aassve, Fuoichi and Mencarini, 2014; van der Lippe, Treas and Norbutas, 2018). Individual role attitudes may be influenced by personal experiences but also the attitudes of others at the household, work, community and country levels; they may also change over time (Schober and Scott, 2012). It was beyond the scope of this research to examine the multi-directional causes and effects of role attitudes in detail, however given the extensive literature it was seen to be important that they were recognised and as such they were included as a control variable in the models.

In line with previous UK research (Kan, 2008a; Schober and Scott, 2012; Kan and Laurie, 2018) gender role attitudes were operationalised using the Understanding Society survey responses to the following five statements: “Pre-school child suffers if mother works/ all in all family life suffers when the woman has a full-time job/ a husband should earn and a wife should stay at home/a husband and wife should both contribute to the household income/ employers should help mothers combine jobs and childcare”. Respondents were asked to indicate on a five point Likert scale the extent to which they agreed with each of the five statements. These questions were asked in 2010-2011 and 2012-13 only (high correlations, i.e. almost 0.7 were noted when comparing responses for both years). 2010-11 responses were used but where missing at the item-level these were substituted with 2012-13 survey responses, if available. A composite measure for gender role attitudes was created ranging from 5 (traditional) to 25 (non-traditional); this was centred at its mean.

An individual level variable for education for both parents was created given the findings of Sullivan (2013). As already discussed above, occupational prestige is not always in line with education therefore a variable representing job class, focusing on those in a professional and managerial roles, was also included. More detailed information about the questions in the survey that relate to the construction of these variables is included in section 3.2.4 above.

3.3.3.3 Relative and absolute resources

The literature also suggests that the earnings of the mother and father relative to one another are an important factor affecting the domestic division of labour (Kan, 2008a) but that absolute earnings may also be relevant (Crompton, Brockmann and Lyonette, 2005). A binary household-level variable was created for relative earnings which distinguished couples in which the mother had equal or more monthly gross earnings than the father from those couples in which the father

earned more. To control for absolute earnings a variable was also created which combined male and female monthly gross earnings.

The remaining control variables were selected based on the findings of prior research (Craig and Mullan, 2011; Kim, 2020; Kurowska, 2020; Carlson, Petts and Pepin, 2021). These include household level variables for the number of dependent children, the age of the youngest child and average age of the couple.

Regarding changes over time in the independent variables, there was very little change in the education variable therefore mother and father education in 2010-11 only was included in the models. The other independent variables were time varying and different versions of these variables were tested in the models. For example, by including one variable for 2010-11 with a second variable to account for changes over the period 2012-2019. The overall interpretation of the models remained the same therefore for the sake of simplicity and given the lack of change over time in the latent classes (see Chapter 5, section 5.1) the time varying independent variables in the models used one variable to summarise the information across all five time periods. For example, if the mother earned the same or more than her partner in at least one time period or she worked flexibly in at least one period, she was coded as having that attribute. Further, the mean number of dependent children across the time periods was taken, as was the mean age of the youngest child in the household.

The independent variables included in the multinomial model are summarised in Table 3.4 below. Missing data at the item level for the flexibility variables was noted; 16% of fathers in the sample had missing data on these variables along with 7% of mothers. The control variables had very little missing data at the item-level with the exception of the gender role attitudes variable which had similar proportions of missing data as for the flexibility variables. After accounting for missing data, the final multinomial model presented in Chapter 5 includes 2,529 couples who had information on all the independent variables.

Table 3.4: Summary of the independent variables included in the multinomial model in phase 2

<i>Flexibility variables</i>	<i>Definition</i>
Use of flexi-time	Binary variable = 1 if answered yes to using flexi-time
Use of regular home working	Binary variable = 1 if answered yes to using regular home working
Use of part-time	Binary variable = 1 if answered yes to working part-time (30 hours a week or fewer)
Availability of informal flexibility	Binary variable = 1 if answered yes or sometimes to having some element of informal flexibility
Self-employment	Binary variable = 1 if self-employed rather than employed
<i>Control variables - individual</i>	<i>Definition</i>
Gender role attitudes	Continuous mean-centred variable where higher values represent non-traditional gender role attitudes
Education	Binary variable = 1 if educated to degree level in 2010-11
Job class	Binary variable = 1 if job classed as “professional and managerial” based on the National Statistics Socio-economic Classification at any of the five time points
<i>Control variables – household level</i>	<i>Definition</i>
Age of couple	Continuous variable based on the mean age of the couple in 2010-11
Number of dependent children	Continuous variable based on the mean number of dependent children in the household across all time periods
Age of youngest child	Continuous variable based on the mean age of the youngest child in the household across all time periods
Relative earnings	Binary variable = 1 if mother earns the same or more than her partner at any of the five time points
Monthly household earnings	Binary variable = 1 if couple in the top decile of earnings

3.3.4 The modelling approach

Repeated-measures latent class analysis (Collins and Lanza, 2009, p. 181) was used to identify patterns of couples’ unpaid work across five time points covering the period 2010 to 2019 (the measurement element of the model). These classes were then included as the dependent (i.e. outcome) variable in a multinomial logistic regression model which explored the extent to which measures of work flexibility and other factors predicted class membership, i.e. couples’ divisions of unpaid work (the explanatory element of the model). The data were analysed in wide format using Stata 14 (StataCorp, 2015) and Mplus 8 (Muthén and Muthén, 2017) software. Household level weights were selected and applied according to the guidance set out in Kaminska and Lynn (2019).

3.3.4.1 Latent class model

Latent class analysis (LCA) is a useful technique for identifying sub-groups or categories of individuals (classes) in the population that are similar to each other (Jung and Wickrama, 2008) and is often used in social, behavioural and health research. It has been used to investigate patterns of youth re-offending behaviour (Chng *et al.*, 2016), health risk behaviours (Collins and Lanza, 2010) as well as gender divisions of paid and unpaid work in couples (McMunn *et al.*, 2020).

The interest in this study is at the household level in terms of couples' divisions of unpaid work. As noted by McMunn *et al.* (2020, p. 5), considering unpaid work simultaneously within couples offers the opportunity to “identify non-normative and less common ways of dividing work which are unlikely to be uncovered by looking at the number of hours spent in work types separately at the individual level”.

The analysis of couples requires a modelling technique that is appropriate for dyadic data (Ledermann and Kenny, 2017), i.e. one that recognises that members of a couple share something in common and as such independence cannot be assumed. Kenny (1996) notes that this non-independence is in part due to compositional effects, i.e. because the two people were similar when they met (e.g. in education, age, social economic status) but also due to partner effects (where a characteristic or behaviour of one person affects their partner's outcomes), mutual influence (when both persons outcomes affect one another) and common fate (where both persons are exposed to the same causal factors) and these must be taken into account in statistical modelling to minimise bias in the results. Unpaid work within couples is likely to be non-independent, e.g. the amount of unpaid work done by the father may lead to increases or decreases in that done by the mother, and vice versa. Further, couples will often be exposed to similar causal factors such as the same number of children in their household.

Dyadic data analysis may use either a multilevel or structural equation modelling (SEM) approach (Ledermann and Kenny, 2017). A SEM approach using LCA was chosen given the existence of distinguishable dyads (i.e. mixed sex rather than same sex couples) as well as the ability to handle latent variables. Indeed, there are many facets to unpaid work in dual-earner parent couples (e.g. cleaning, cooking, childcare) and it follows that a single variable such as housework hours (Kan, 2008) or a focus only on childcare (Walthery and Chung, 2021) is limited in its ability to measure this concept. LCA enables the inclusion of a number of indicator variables which represent different facets of unpaid work for both the mother and father. The unpaid work of couples is therefore operationalised as a latent variable at the household level. The latent variable was

assumed to be categorical rather than continuous therefore LCA over Item Response Theory was chosen as the appropriate modelling strategy (Shryane and Chandola, 2018).

Repeated-measures latent class analysis (RMLCA) is a latent class model where the indicators of the latent classes include variables measured at multiple time points (Collins and Lanza, 2009), in this case five time points covering the period 2010 to 2019. The latent classes then correspond to different patterns in the data which includes categorical or discrete change over time; “change over time is modelled in whatever form it naturally occurs in each latent class, this can be helpful when growth is smooth in some latent classes and characterized by a lot of up-and-down or discontinuous change in others” (Collins and Lanza, 2009; 186-187). For example Lanza and Collins (2006) used RMLCA to identify drinking patterns across time points; identifying one class as heavy drinkers at all time points, another who were never heavy drinkers and other classes where there was fluctuation between heavy and non-heavy drinking such as heavy drinking in youth only but not in adulthood.

While this study is in part interested in any change over time in couples’ divisions of unpaid work, the choice of RMLCA over cross-sectional LCA is also informed by an awareness of the missing unpaid work data mentioned above (section 3.3.2.3). This is particularly an issue for fathers and means there is a risk that mothers’ perceptions of divisions of unpaid work may have more influence in the results which is a concern for couples in which divisions are contested. A repeated measures approach therefore maximises the use of the available data for both mothers and fathers. It helps address the contested nature of the divisions of unpaid work within couples rather than giving one preference or running separate models as other studies have done, as well as allowing any change over time to be examined. Couples were included in the latent class analysis providing at least one of them had unpaid work data at a time point. As mentioned above, there were only four couples who had missing data on all the unpaid work variables for all waves and whom are not included in the final LCA models. Missing data may affect the separation of the latent classes and where relevant this is highlighted in the results.

In accordance with Asparouhov and Muthén (2014) the measurement part of the model was first run. Following the guidance in Shryane et al (2013, p.120), this began with examination of a one class model taking note of the absolute fit using the model’s best log likelihood, the parsimonious fit using Akaike’s Information Criterion (AIC) and the Bayesian Information Criterion (BIC) as well as the incremental fit using the Lo Mendell Rubin likelihood ratio tests. Subsequent models were run each time increasing the number of classes by one. Details of the model fit and final latent class model decided upon are reported in Chapter 5 (section 5.1).

3.3.4.2 *The multinomial regression model*

Due to the presence of a multi-categorical dependent variable (i.e. the latent classes), multinomial logistic regression was chosen as the most appropriate method of analysis (Field, Miles and Field, 2012). Two models were built.

For the first model, the control variables were first added to the multinomial model followed by the various (individual) measures of work flexibility for each parent (i.e. flexi-time, home working, part-time, informal and self-employment) on a stepwise basis. This enabled the log likelihood, Akaike Information Criterion (AIC) and Bayesian Information Criterion (BIC) at each step to be noted and as such for model fit to be assessed. The individual level variables for fathers and mothers were not highly correlated and entering each on a stepwise basis into the models did not appear to unduly affect the model coefficients. Results from this model are reported in Chapter 5.

The first model included individual level variables for both parents as well as certain household level independent variables to explain couples' divisions of unpaid work. Including both parents' flexibility in the model allowed the individual effect of each to be explored. For example, including father flexi-time but controlling for the mother flexi-time the overall effect of fathers' flexi-time can be seen regardless of whether the mother also works in that way, and vice versa. However, this approach does not easily highlight other combinations such as the effect of neither parent having flexibility or both having flexibility which the literature suggests may be important (Radcliffe and Cassell, 2015). Combining the flexibility of the mother and father into one household level variable was therefore explored. Attempts to create a couple flexibility measure using latent class analysis techniques were unsuccessful however it was possible to create a four-level categorical variable to reflect different combinations of flexibility at the couple level, e.g. neither parents having flexi-time, only the mother having flexi-time, only the father having flexi-time and both parents having it. The literature also suggests that different combinations of gender role attitudes and education may have different impacts on couples' divisions of work (McMunn et al, 2020). As such, household level variables were also created for various combinations of couples' gender role attitudes, education and job class. These variables were then included in a second, alternative model which included the independent variables at the household level only as predictors of class membership in order to highlight the effect of different combinations of couples' flexibility. The results from this second, alternative model are also reported in Chapter 5.

3.3.5 Recruitment of the interview participants

Participants were recruited through purposive and snowball sampling (Yin, 2014), drawing on my connections with a Scottish charity that works to improve women's equality in the workplace and has identified a lack of Scottish-specific interview data in this area. The charity advertised the call for participants in Scotland (see Appendix 6) in their blog and social media accounts and also sent the call to gatekeepers in their diverse network of organisations who shared the call with their members and employees to facilitate contact with participants who met the principal inclusion criteria. In line with the research questions and the quantitative sample this was mothers and fathers in mixed-sex dual-earner couple households with at least one child under the age of 16. It is noted that this research design includes interviewing both men and women which may be contrary to the feminist research aim of amplifying the female voice. However, it is argued that in the context of couples, obtaining the voices of fathers is necessary to obtaining a more comprehensive understanding of the challenges faced by mothers (Gatrell, 2006) which has relevance for this study's practical outcomes and recommendations.

Past qualitative research looking at the use of work flexibility has tended to focus on the experiences of professional and managerial couples. However, the findings of phase one of the study revealed differences in the levels of work flexibility used by employees in the "Lower supervisory and technical" and "Semi-routine and routine" occupational groups when grouping the use of flexibility by the National Statistics Socio-Economic Classification (NSSEC) scale. The call for participants therefore attempted to encourage participants from a wider range of occupations, including the self-employed.

For data protection reasons, interested participants were asked to contact me directly. It was more difficult to recruit men than women which led to the over-representation of women in the sample which has been found in other research (Costigan and Cox, 2001; Leach *et al.*, 2019; Yaremych and Persky, 2022). In three male participant cases it was in fact the mother in the couple who came forward in the first instance; I replied to ask them if their partners would instead be willing to participate.

When potential participants came forward to express an interest in being interviewed they were provided with further details of the study to help them decide if they would like to be involved. This included an initial telephone call for me to introduce myself and the study, followed by the provision of the participant information sheet and the consent form that participants would be asked to sign before the interview. These documents are included in Appendices 7 and 8.

Participants were given a £30 shopping voucher as a thank you for their participation following

the interview. Reasonable travel expenses were also reimbursed. Ethical approval was given by the University's Social Science School Panel on 18 January 2019. Small amendments to the ethics forms were made during the fieldwork in order to collect further personal data from the interview participants; these were submitted for approval in July 2019 and were subsequently approved. This personal data involved asking for further details of the participants' earnings from employment/self-employment and their annual household earnings group which was useful to include as part of the analysis which compared and contrasted the experiences of different groups.

I aimed to recruit approximately 20 participants which budgeted for my time and the resources available, i.e. the funding that was available for travel between Manchester and Scotland as well as the shopping vouchers provided to the participants.

3.3.6 The semi-structured interview design

The rapport-building process began during the initial telephone conversation to introduce myself and the study. What to expect during the research process was explained to the participants and key points from the participant information sheet and consent form were highlighted to them, e.g. the desire to record the meeting, the use of pseudonyms. This continued during email exchanges to confirm participation and agree an appropriate meeting time. Immediately before the interview, participants were reminded of these points and the consent form was explained to them before obtaining their signature.

Participants were asked at the start of the interview to complete a short demographic questionnaire which included questions about the ages of their children, job title, earnings and total household income (in line with the variables the literature suggested may be important to work flexibility and divisions of unpaid work). The interview recording then began with the researcher asking general questions (e.g. tell me about a typical working day for you) and using a probing and funnelling technique to obtain more detail. More potentially contentious questions such as those about divisions of unpaid work within the household were saved until later in the interview to give participants time to settle into the interview and feel more comfortable.

Kvale and Brinkmann's (2009) advice informed the interview design; a good quality interview is likely to encompass good questioning techniques, knowledge of the topic, sensitivity to social relations and an awareness of the ethical aspects. An interview plan (see Appendix 9) including predominantly open questions was used to guide discussions. The participants were asked about their paid work and the work of their partner, their work flexibility and interactions with their partner in terms of the childcare and other aspects of their unpaid work. The questions were

sufficiently fluid to enable the participants to raise issues themselves and allow responses to be probed to a deeper level to provide “the analytical potential that is such an important element of qualitative research” (Ritchie *et al.*, 2014, p. 184).

As with any line of questioning, the potential harm to participants was considered. While questions regarding work flexibility and the domestic division of unpaid work were unlikely to cause significant psychological stress it was possible that questions around individuals’ work and home experiences, particularly if negative, could cause participants to reflect more deeply on matters and result in anxiety. Each participant was reminded of this possibility and referred to a point of contact (e.g. Working Families helpline or ACAS helpline) should they have issues they felt they would like to discuss further following their interview.

To maintain confidentiality all personal data provided in the course of the interviews, together with interview transcriptions, was password protected and retained on a University encrypted computer in accordance with the study’s data management plan. Pseudonyms were used in describing the participants and quotes were anonymised appropriately. Interviews were recorded on an audio device and transcribed verbatim. The recordings were deleted once they had been transcribed and checked; only I and the transcriber (a University-approved transcription service) had access to the full details of the interview.

3.3.7 The interview sample

19 interviews took place with mothers and fathers in dual-earner couples in Scotland over the period April 2019 to October 2019. Each interview lasted for approximately one hour. The majority of interviews took place face to face in locations which included a local café and various office spaces; two interviews took place over the telephone.

Demographic information regarding the participants is presented in Table 3.5 below. Twelve mothers and seven fathers were interviewed; they lived in a variety of areas in Scotland with the majority from postcode areas within the Central Belt of Scotland (the area of highest population density within Scotland) including Glasgow, Edinburgh and Falkirk. Participants were aged between 32 and 52 with children living with them aged from 10 months to 21 years old. All but three of the participants were home owners. All participants were in cohabiting relationships in a mixed-sex couple.

A range of job roles and job levels in the private, public and third sectors are included in the sample when looking at both the participant and their partner. To protect participant identity the full title and description of their jobs cannot be reproduced however the major one unit

group Standard Occupational Classification (ONS, 2010) code for each participant and their partner is noted in the table above. Table 7 also includes details about the participants' annual gross earnings group as well as their annual household income group and educational background. Median household income for UK dual-earner couples was calculated to be in the region of £50,000 per annum using the survey data. Table 3.5 shows that the sample has a range of dual-earner household income groups with eight of the participants in households with annual income of up to £60,000 per year and three of these eight with annual household income of up to £40,000. The earnings and household income information was not made available by two of the participants however based on information available to me during the interview, together with knowledge of their occupational groups, it is likely that they fell into the "above 60,000" household income bracket. While the 12 female participants come from a range of backgrounds, income levels and occupations, the 7 male participants are concentrated in professional/associate professional occupations and the higher household income groups. This reflects the findings of Costigan and Cox (2001) who found that fathers participating in family research tended to be more educated/working at the higher occupational classes and also suggested that they may have non-traditional views regarding childcare than fathers who do not participate in such research. It is likely that self-selection bias is present in the sample of fathers; for example, those with non-normative divisions of unpaid work that they were keen to share, may have been more likely to come forward.

Due to the nature of the purposive and snowball sampling strategy, five participants were from the same employer. It is recognised that these participants may share some similarities in experience due to a shared organisational culture (for example, being part of the same employer-wide flexi-time policy) however, the organisation concerned is a very large public sector employer and the participants did not work in the same areas; they came from a range of occupational groups and income levels and the analysis found a diverse range of experiences.

Clearly the sample is numerically limited and not representative of UK dual-earner couples however this was not the intention, rather analysis of the interview data is aimed at developing deep insights into the experiences of mothers and fathers which is not possible using solely quantitative data. While the sample is likely to be skewed towards those with more flexible ways of working who found it easier to find time to participate in a research interview as well as those who felt strongly about the research topic (e.g. those with non-normative divisions of unpaid work that they were keen to share) this meant that a range of flexible working experiences and divisions of unpaid work were available for the purposes of the analysis.

Table 3.5: Interview participants, demographic and occupational information

Participant pseudonym	Male/ Female	Degree educated	No. of children	Estimated gross annual earnings from employment/self- emp.	Estimated gross annual household income	Participant major SOC code	Partner's major SOC code
Fay	F	Yes	2	Unavailable	Unavail. (likely higher)	4	2
Violet	F	No	4	Less than £10,000	£20,000 - 40,000	2	7
Julia	F	Yes	2	£40,001 to £50,000	£80,001-100,000	3	2
Rebecca	F	Yes	1	£30,001 to £40,000	£60,001-80,000	2	2
Katherine	F	No	3	Less than £10,000	£20,001 - 40,000	4	8
Kim	F	Yes	2	Less than £10,000	£60,001-80,000	6	1
Christina	F	Yes	1	£50,000 plus	£80,001-100,000	3	2
Sophia	F	No	2	£10,001 to £20,000	£40,001-60,000	3	8
Hilary	F	No	3	£10,001 to £20,000	£20,001 - 40,000	4	9
Talia	F	Yes	1	£30,001 to £40,000	£40,001-60,000	3	3
Maria	F	Yes	3	£20,001 to £30,000	£40,001-60,000	3	8
Haniyah	F	Yes	1	£20,001 to £30,000	£40,001-60,000	2	5
Elliott	M	Yes	2	£10,001 to £20,000	£60,001-80,000	3	2
Adam	M	Yes	2	Unavailable	Unavail. (likely higher)	2	3
Daniel	M	Yes	3	£50,000 plus	£60,001-80,000	2	2
Ian	M	Yes	2	£50,000 plus	£80,001-100,000	3	2
Declan	M	Yes	2	£20,001 to £30,000	£40,001-60,000	1	2
John	M	Yes	2	£50,000 plus	£60,001-80,000	1	2
Michael	M	Yes	2	£40,000 to £50,000	£60,001 - 80,000	3	2

Standard Occupational Classification (SOC) code, major groups: 1. Managers, Directors and Senior Officials, 2. Professional Occupations, 3. Associate Professional and Technical Occupations, 4. Administrative and Secretarial Occupations 5. Skilled Trades Occupations, 6. Caring, Leisure and Other Service Occupations, 7. Sales and Customer Service Occupations, 8. Process Plant and Machine Operatives, 9. Elementary Occupations

Interviews took place with mothers and fathers in dual-earner parent couples living in Scotland during April to October 2019.

3.3.8 Analysis of the interviews

Immediately after each interview, summary notes were made on first thoughts regarding the topics discussed. The interviews were transcribed and transcriptions were analysed using NVivo 12 (QSR, 2018) software and followed Mason's (2002, p. 148) different ways of "reading" the data. Firstly, a literal approach paid attention to the words and language used, a more descriptive stance. Secondly, an interpretive stance (Mason, 2002) or analysis of meanings (Olsen, 2012) involving consideration of what might be inferred from implied meanings in the data such as underlying discourses used by the interviewee. Indeed, while participant experiences are important and indicative of the "real" it is also important to consider the deeper causal structures that exist beyond individual choice and experience (Fletcher, 2017). For example the overarching social and workplace norms within which individuals are embedded. A critical approach involving the inclusion of negative cases and the consideration of alternative interpretations was also taken (Silverman, 2011, p. 351). The third level was a reflexive reading of the data to consider the interviewer's role in the production of the data.

As such the data was first organised into the broad themes coming out of the interview which included descriptive nodes for example, "interactions with partner regarding childcare", "negotiations with employer regarding flexibility" and "unpaid work". This was useful for retrieval and these sections of text were used for further interpretive analysis using flexible subheadings and groups that were allowed to overlap and contradict. For example, negotiations regarding flexibility included a sub-theme of "ideal worker discourse" and "unpaid work" included a sub theme of "the mental load". An extract of the node framework is included in Appendix 10.

As part of the analysis a summary of the different types of work flexibility used by the participant and their partner was prepared. This summary is presented in Chapter 5 and shows that a number of the participants used various flexible working arrangements including part-time, home working and flexible start and finishes; the latter was the most common with 13 participants using it. It is likely that the sample is skewed towards those with access to flexibility; those parents who work flexibly being more likely to come forward given their ability to take time out of the working day or organise their non-working days around participation in a research interview. This gave a range of experiences in the use of flexibility but also different couple combinations in this regard.

Also as part of the analysis, the participants were grouped into two categories based on how they divided the unpaid work with their partner; those who tended towards mother-dominant

divisions and those who tended to towards more equally-shared/father-dominant divisions (in line with the results of the latent class analysis above). As shown previously, childcare, cooking and cleaning take up much of the unpaid work time of dual-earner parent couples. However, as well as the physical element of unpaid work, the cognitive side has been shown to be important in the literature and may become a “mental load” (Daminger, 2019). In grouping the participants’ divisions of unpaid work with their partner, consideration was therefore given to both the physical unpaid tasks performed but also any cognitive labour. The participant’s own interpretation of the division was taken into account as well as evidence provided during the interview regarding the unpaid work activities and the paid working patterns of both parents. Only one parent from a couple was interviewed. This was less of an issue for more descriptive elements of the analysis such as those around work flexibility, a change in jobs or arrival of a new baby. However, in other more subjective, contested areas such as gender role attitudes or perceived involvement in the unpaid work, there were implications. I was mindful of this when analysing the data and possible points of contention are highlighted in the findings. The two categories are intended to be a broad indication only of unpaid work divisions to aid the analysis and allow different participants to be compared and contrasted.

As mentioned above, a third level of the analysis involved a reflexive reading of the data to consider my role in the production of the data. This included consideration of the data generated regarding the unpaid work of the participant and how it was divided with their partner. I was aware of the potential that such questions may invite judgement and lead to social desirable responses but also awkwardness during the interview. Indeed, Kan (2008) suggests that while UK women tend to report their housework time more accurately than men, men with more traditional gender-role attitudes may over-report their housework time but where they undertake long hours of housework they may in fact under-report it. This may be due to differences in social desirability of women’s and men’s participation in housework (Press and Townsley, 1998; Kan, 2008b). This was therefore approached sensitively and I reassured the participant about confidentiality of the interview process and built rapport before and during the interview. On reflection it is possible that they may have responded to a male researcher differently and indeed Medved (2016a, p. 28) argues that “hegemonic masculinity is often a performance for other men”.

An interviewer effect must also be considered for the mothers interviewed; those classed as having mother-dominant divisions appeared in some cases resentful of their division and suggested it was a contentious issue at home. They may have been more comfortable sharing such issues with a female researcher. In contrast, the mothers in the sample who appeared to

have more shared or father-dominant divisions of unpaid work may have felt the need to justify their less conventional role (Medved, 2016b) which may have involved over-emphasis of their participation in the childcare and housework. Additionally, findings around the cognitive aspects of unpaid work and any associated mental load must be interpreted in light of the context in which the interviews took place. Only a few months before the interviews there had been widespread media coverage of a cartoon depicting the mental load of women (Emma, 2017), which a small number of female (but not male) interview participants indicated they had seen. This may have informed how comfortable mothers felt talking about it with fathers perhaps less aware of the phenomenon or less comfortable talking about it.

The qualitative analysis results are presented in Chapter 5 alongside the quantitative results and are used to help explain and discuss the quantitative findings focusing on how parents use their work flexibility, the couples' interactions in this regard and links to their divisions of unpaid work. Further insights from the qualitative analysis are presented in Chapter 6 providing details of how the participants were categorised in terms of their unpaid work divisions and further context and nuance which adds to the understanding of how and why factors (other than work flexibility) influence divisions of unpaid work.

In conclusion, this chapter introduced the mixed methods nature of the study, demonstrating how the analysis of survey data is used to answer the research questions in the first phase and the analysis of survey and interview data was used to answer the research questions in the second phase. Detailed discussion of the data, sample and analytical approach was included. The following chapters 4, 5 and 6 presents the research findings. Chapter 4 presents the findings from phase one of the study which looks at changes in the availability and use of flexible working in the UK. Chapters 5 and 6 present the findings from phase two of the study which furthers the understanding of the relationship between work flexibility and the unpaid work of UK dual-earner couples.

4 The availability and use of flexible working in the UK 2010-19

The previous chapter introduced the mixed methods approach of this thesis which is divided into two phases. This chapter presents the findings from the first phase of the study. As set out in Chapter 2, the right to request flexible working was originally only available to those with caring responsibilities and it (particularly part-time working) has been used by a much greater proportion of working mothers than working fathers (Atkinson and Hall, 2009; Tipping and Perry, 2012). A number of organisations (typically public sector or large private sector) chose to extend the right to all employees at an early stage and in June 2014 the statutory right to request to work flexibly was introduced for all employees in the UK with over 6 months' continuous employment service. Shared Parental Leave was also introduced in 2015 aimed at encouraging fathers to be more involved in the childcare from an early stage which is seen to be a key part of closing the UK's gender pay gap. Given the policy focus on increased father involvement and flexibility for all this phase of the study asked:

- How has fathers' use of flexible working changed in comparison to mothers over the period 2010 to 2019?
- What evidence exists to suggest that the use of flexible working is becoming more widespread in the UK?

These questions were answered by analysing secondary data from the Understanding Society household longitudinal survey (University of Essex, 2021) using a sample of UK employees (N=7,428) who answered questions about the availability and use of flexible working arrangements at their main workplace over the period 2010-2019. The previous chapter (section 3.2) provided detailed information regarding this phase which included the choice of dataset, how the longitudinal sample was derived, together with the variables of interest and the modelling strategy adopted.

The first section of this chapter presents descriptive statistics regarding the changes in the availability and use of flexible working over the period 2010-2019, distinguishing between the availability of formal and informal flexibility, the use of worker-led flexibility and other types that are less clearly worker-led. Secondly, the results of the analytical models are presented. These models allow comparisons in the use of flexible working to be made between different groups over the period 2010-19, namely comparisons between mothers and fathers but also those working at different job levels and sectors.

4.1 Results: descriptive statistics

Figure 4.1 presents both the availability and use of flexible working arrangements in the UK. The top two lines can be interpreted as the availability, from an employee's viewpoint, of formal and informal flexible working in their main job. The chart shows that 75.2% (CI 73.6-76.9%) of employees indicated that some sort of formal flexible working was available to them in 2010-11 with this having increased to 80.9% (CI 79.4-82.3%) in 2018-19. This means that one or more of the following types of flexibility was available to them: part-time working, term-time only, job sharing, flexi-time, compressed week, annualised hours, regular homeworking and other flexible working arrangements (and from 2016-17 and 2018-19 zero hours work and on-call working). Figure 4.1 also shows an increase over the period in the percentage of people indicating that some sort of informal flexibility was available to them, i.e. in 2010-11 64.5% (CI 62.6-66.3%) of employees were able to vary their working hours on an informal basis compared to 68.7% (CI 67.0-70.3%) in 2018-19. In terms of the proportion of employees who actually used formal flexible working, there appears to have been an increase with 44.3% (CI 42.9-46.2%) of employees saying they used one or more types in 2010-11; by 2018-19 this was 49.4% (CI 47.7-51.1%). These results suggest that both perceptions of availability and actual use of flexible working have increased over the period.

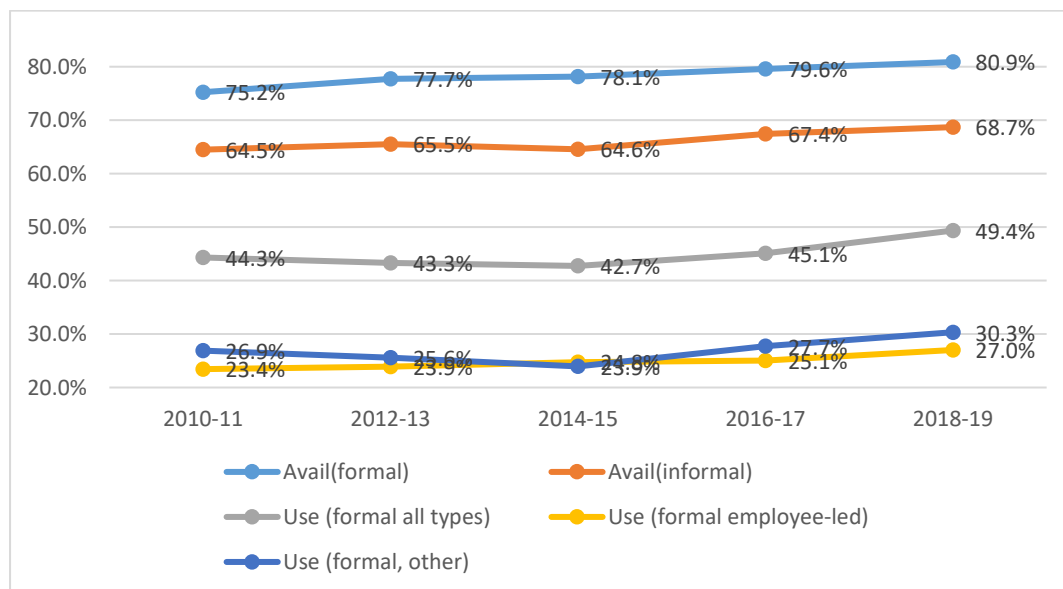


Fig. 4.1: Availability and use of flexible working in the UK 2010-19 (Source: *Understanding Society* (University of Essex, 2019), waves 2, 4, 6, 8 and 10. Balanced sample of N=7,428 UK employees, data are weighted using longitudinal weight *j_indinub_lm*)

The yellow line in Figure 4.1 presents the use of flexible working that may be more clearly be interpreted (as discussed in section 3.2.3.1 of Chapter 3) as worker-led use of flexible working (i.e. home working, flexi-time, compressed hours, job share, term-time working). This shows that the percentage of employees using these types of flexible working has increased from 23.4% (CI 22.0-24.9%) to 27.0% (CI 25.5-28.5%) over the period 2010-2019. Further, the dark blue line in Figure 4.1 represents the use of other types of flexible working and suggest an increase from 26.9% (CI 25.2-28.6%) in 2010-11 to 30.3% (CI 28.8-31.8%) in 2018-19. These confidence intervals do not overlap therefore it appears there has been a small increase in the use of all types of formal flexible working measured in the survey, both those that are more clearly worker-led and also other types.

Figure 4.2 below looks more closely at the individual types of worker-led flexibility and suggests an increase in the use of regular home working only over the period; use of the other types of worker-led flexibility remain relatively static.

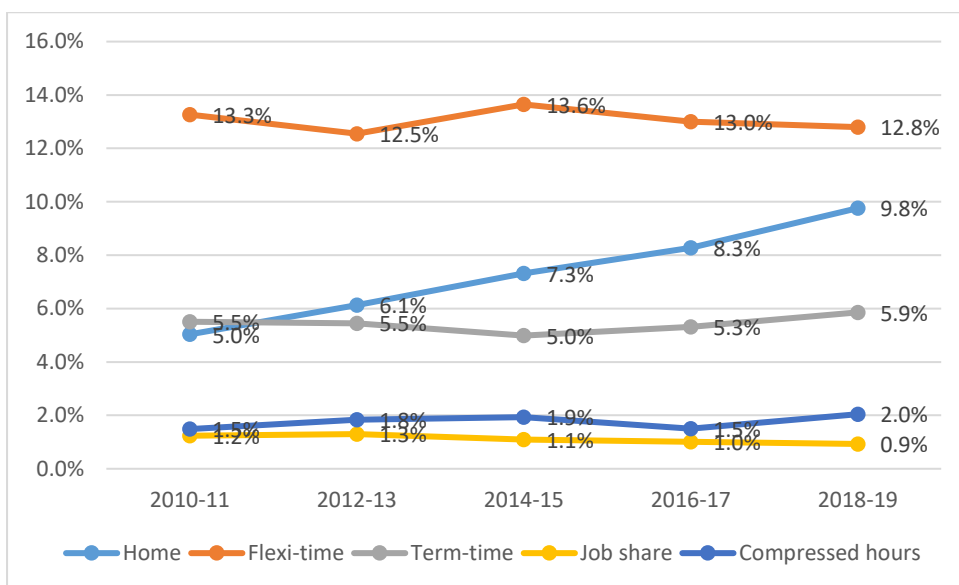


Fig.4.2: Changes in the use of worker-led flexibility in the UK 2010-19 (Source: *Understanding Society* (University of Essex, 2019), waves 2, 4, 6, 8 and 10. Balanced sample of N=7,428 UK employees, data are weighted using longitudinal weight *j_indinub_lw*)

Figure 4.3 presents this information for the other types of flexible working that are less clearly worker-led. It suggests that the increase in the use of other types of flexible working may be due to a small increase in the use of part-time work and the use of zero hours contracts and on-call working being measured in the survey from 2016-17 onwards.

These findings are in line with other studies. Using the Labour Force Survey, another UK large scale survey designed to be representative of the UK, the CIPD (2019) found that in 2017, 49% of employees used some kind of flexible working arrangement which can be compared to the grey line in Figure 4.1 which reports a broadly similar proportion. Further, the CIPD (2019) found that 10.7% of employees were using flexi-time and 5% using term-time working in 2017. While differences are expected due to differences in survey design and sampling error, these are broadly similar to the percentages shown in Figures 4.1 and 4.2. In terms of changes over time, the CIPD’s study (2019) focused only on formal flexible working and concluded that there was little change in take-up of this in the UK in the 10 years to 2017 with the exception of zero hours working and home working in which they found a “slow but steady increase” (CIPD, 2019, p.11). Indeed, looking at the figures above, the clearest changes over the period 2010-2019 do appear to be in the use of regular home working.

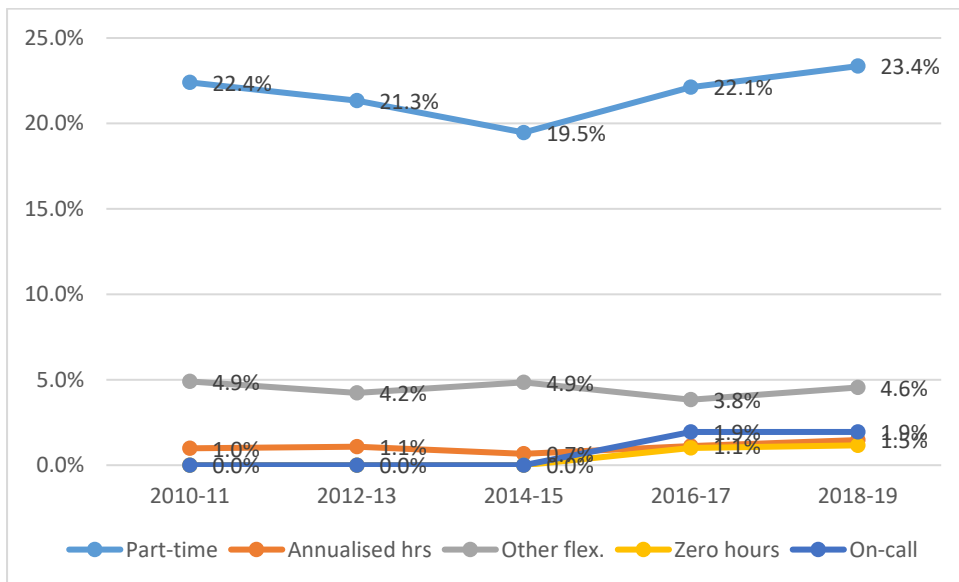


Fig.4.3: Changes in the use of other types of flexible working in the UK 2010-19 (Source: *Understanding Society* (University of Essex, 2019), waves 2, 4, 6, 8 and 10. Balanced sample of N=7,428 UK employees, data are weighted using longitudinal weight $j_indinub_lw$). Zero-hours and on-call working were not measured in the survey in the first three time periods.

In summary, while these results suggest an increase on average in the use of formal flexible working over the period 2010 to 2019 this is more nuanced when only those types of flexible working that are more clearly worker-led are examined, which, other than home working, do not appear to have increased. In turn, there appears to have been a small increase in the use of other types of flexible working which are less clearly worker-led such as part-time and those that are more clearly organisation-led such as zero hours and on-call working.

4.2 Results: multi-level logistic regression

The following model results further explore how the use of different types of flexibility has changed over the period 2010-19. They enable comparisons to be made between certain groups such as mothers and fathers, regions, size/sector of employer to help build a picture of the use of flexible working in the UK and how this has changed over the period 2010 to 2019. As set out in Chapter 3 (section 3.3.4), four models analysed different versions of the dependent (i.e. outcome) variable. Model 1 analysed the use of worker-led flexibility (i.e. home working, flexi-time, term-time, job share, compressed hours), Model 2 analysed the use of other types of flexibility (part-time, annualised hours, zero hours, on-call and other types), Model 3 analysed the use of full-time flexibility (i.e. home working, flexi-time, compressed hours). Model 4 analysed the use of reduced hours flexibility (i.e. part-time, term-time, job share). The models have the same independent (predictor) variables.

4.2.1 Sample characteristics

Characteristics of the sample of 7,428 employees, comparing the first year 2010-11 with the final year 2018-19, are included in Appendix 1. The sample was 55% female. In 2010-2011, average age was 40 years, 50% were parents, 47% of were educated to degree level, 48% were working at the highest job levels (professional and managerial) and almost 60% were working in the private sector (Appendix 1). With the exception of sex, the sample characteristics changed over time. For example, some respondents in the sample became parents over time and others ceased to be parents of dependent children (i.e. their children had grown up). This is relevant because over time the survey respondents may have moved into sectors or been promoted into jobs roles that were more flexible but also over time these sectors may have become more flexible due to legislative change, change in working norms or advances in technology (the research question of interest in this study). The models do not distinguish these differences; the overall effect of time on the independent variables included in the models is small and given the difficulties in distinguishing between (i.e. how people change in relation to others) and within person variability (i.e. how people change in relation to themselves) in categorical time-varying predictors (Hoffman, 2014), separation of the between and within effects was not performed. It is however noted that many of the independent variables are relatively stable (e.g. measures of stability for the parent and job class variables were in the region of 75%) suggesting that the effect of time is likely to be due to changes in the use of flexibility between different groups (between people variation) rather than simply due to changes made by an individual over time (within-person variation). Values of the intra-class correlation coefficient (ICC) also support this. These can range from 0% to 100% with a value of 100% meaning that the dependent

variable only varies between people, i.e. any given person either has worker-led flexibility in all time periods or they do not have it at any time period (i.e. no within-person variation). The ICCs for each of the empty models ranged from 62% in Model 1 to 79% in Model 4; ICCs of this size demonstrate that there substantial between people variation.

Sample statistics for each of the key independent variables by use of worker-led flexibility (Table 4.1) are presented below for the first and last time periods. These suggest relatively narrow differences between men and women in 2010-11. Some change over the period in the use of worker-led flexibility is noted in certain groups such as those who are educated to degree level, those in professional/managerial positions and those in certain sectors. Further details for 2010-11 are included in Appendix 1 which include details of the cell count for each variable.

Sample statistics for each of the key independent variables by use of other types of flexibility (Table 4.2) are also presented below for the first and last time periods. These suggest much wider differences (compared to Table 4.1) between men and women, parents and non-parents in 2010-11. Consistent increases over the period are also noted in the use of other types of flexibility across the majority of groups. Again, further details for 2010-11 are included in Appendix 1 which include details of the cell count for each variable.

Table 4.1: Proportion of UK employees using worker-led FWA by key independent variables (2010-11 and 2018-19)

Independent variable	2010-11	2018-19
	%	%
Parents	29.1	31.3
Non-parents	22.1	26.1
Female	28.6	29.8
Male	21.6	26.4
Carers	27.9	30.0
Non-carers	25.2	28.0
Degree educated	31.7	35.7
Not degree educated	20.1	20.4
<i>Job level:</i>		
Semi routine/routine	15.8	15.8
Lower supervisory	12.6	14.8
Intermediate	30.4	27.5
Management/professional	31.2	35.9
<i>Sector:</i>		
Private	17.1	21.1
Other Public	20.4	38.6
Central govt. or civil service	58.4	61.8
Local govt. or council	46.6	46.9
University or gf education	37.2	36.4
Health authority or NHS trust	18.2	17.5
Charity or voluntary	35.0	35.4
<i>Size of employer:</i>		
1 to 9 employees	21.2	22.9
10-49	21.7	24.1
50-199	27.0	27.2
200-999	28.2	31.7
1000 plus	32.3	36.8
<i>Autonomy in role:</i>		
Low	12.6	17.9
Medium	21.5	21.2
High	30.0	32.1

Source: Understanding Society, University of Essex (2021). Waves 2,4,6,8,10. Percentages are unweighted. Number of employees at each wave is 7,428. Missing data mainly due to proxy respondents who were not asked the FWA questions with a small number of "don't know"/"refused". Details of FWA by region and age are not included here however region and age are controlled for in the models. Worker-led FWA = use of regular home working, flexi-time, term-time, job share or compressed hours.

Table 4.2: Proportion of employees using other types of FWA by key independent variables (2010-11 and 2018-19)

Independent variable	2010-11	2018-19
	%	%
Parents	34.0	35.7
Non-parents	19.9	29.2
Female	37.8	44.7
Male	12.9	16.1
Carers	31.9	39.3
Non-carers	26.0	30.4
Degree	24.3	30.9
Not degree educated	29.2	33.2
<i>Job level:</i>		
Semi routine/routine	37.0	40.76
Lower supervisory	15.3	20.15
Intermediate	34.1	40.09
Management/professional	21.0	27.79
<i>Sector:</i>		
Private	25.3	29.7
Other Public	24.0	27.0
Central govt. or civil service	22.6	27.58
Local govt. or council	27.9	32.28
University or gf education	27.1	34.82
Health authority or NHS trust	35.1	43.36
Charity or voluntary	34.5	42.52
<i>Size of employer:</i>		
1 to 9 employees	34.62	41.54
10-49	29.06	35.10
50-199	22.17	27.32
200-999	25.64	29.47
1000 plus	23.81	28.93
<i>Autonomy in role:</i>		
Low	31.16	36.20
Medium	27.57	33.68
High	25.66	30.69

Source: Understanding Society, Waves 2,4,6,8 and 10 (University of Essex, 2021). Percentages are unweighted. Number of employees at each wave is 7,428. Missing data mainly due to proxy respondents who were not asked the flex questions with a small number of "don't know"/"refused". Details of flexible working arrangements by region and age are not included here however region and age are controlled for in the models. Other types of FWA = use of part-time, annualised hours, zero hours, on-call and other (unspecified) types.

4.2.2 Model results

The model building process is described in detail in Chapter 3 (section 3.2.5). Full details of each of the stepwise models for all four models is included in Appendix 2. Model fit statistics were noted at each step and include the log likelihood, AIC and BIC statistics; these were calculated on the unweighted models because the Stata 14 software (StataCorp, 2015) commands for weighted models were unable to calculate these figures (Williams, 2017b). Extracts from the code used to run the models in Stata are also included in Appendix 2. The full model fit statistics are presented in Appendix 2. The declining values of AIC and BIC alongside increasing values of the log likelihood indicated that each step improved the model and that the final models best fitted the data (Singer and Willett, 2003). A summary of these model fit statistics is included in Table 4.3 below which provides these statistics for the empty model compared to the final model for each of the four models.

Table 4.3: Comparing model fit in the empty multi-level models versus the final models

	<i>Model 1</i>		<i>Model 2</i>		<i>Model 3</i>		<i>Model 4</i>	
	Empty model	Final model	Empty model	Final model	Empty model	Final model	Empty model	Final model
LL	-17301	-15827	-17461	-15517	-13734	-12446	-15305	-12828
AIC	34605	31814	34926	31195	27472	25052	30614	25815
BIC	34622.7	32491	34943	31872	27489	25729	30631	26493

Full details are reported in Appendix 2.

In the final model, the relevant command in Stata, *svyset* (StataCorp, 2017), was used which accounted for the survey's complex design and included the appropriate longitudinal weight variable created by the survey designers, as discussed in Chapter 3 (section 3.2.2). Comparison of the final weighted models to the final unweighted models (Appendix 2) indicated broadly similar results. The final weighted models are presented below. Models 1 and 2 are presented alongside each other in Table 4.4 for comparison purposes. Models 3 and 4 are presented alongside each other in Table 4.5.

Of primary interest in the models are the fixed effect coefficients (in log odds), i.e. the average effect of the independent variables on the dependent variable together with the average effect of time for each independent variable (measured by including cross-level interactions of each

independent variable with the time variable). The model coefficients for each independent variable are reported however for reasons of space, while all the coefficients in 2010-11 (regardless of effect) are included in Tables 4.4 and 4.5, only the noteworthy time interactions are reported. Marginal probabilities from the models were produced and are also presented below to aid interpretation of the models (Williams, 2012).

Table 4.4: Logistic regression models 1 and 2, changes in the use of worker-led flexibility versus other types of flexibility in the UK, 2010-2019

	Model 1 Worker-led flexibility		Model 2 Other types of flexibility	
	Coefficient	SE	Coefficient	SE
Time	-0.05	(0.13)	-0.31*	(0.13)
Female 2010-11	0.26	(0.16)	0.81***	(0.19)
Female x Time	0.01	(0.02)	0.17***	(0.03)
Fathers 2010-11	0.27	(0.19)	-0.16	(0.22)
Fathers x Time	-0.02	(0.03)	0.08*	(0.04)
Mothers 2010-11	0.31	(0.23)	2.13***	(0.26)
Mothers x Time	0.00	(0.04)	-0.07	(0.04)
<i>Autonomy in role: ref is none or very little</i>				
Medium	0.52*	(0.21)	0.11	(0.20)
High	0.99***	(0.19)	0.13	(0.18)
Medium x Time	-0.02	(0.03)	-0.03	(0.03)
High x Time	-0.01	(0.03)	-0.04	(0.03)
<i>Job class: ref is routine/semi-routine</i>				
Lower supervisory	-0.38	(0.31)	-1.17***	(0.27)
Intermediate	0.45*	(0.19)	-0.57**	(0.19)
Management/professional	0.43*	(0.18)	-1.23***	(0.18)
Lower supervisory x Time	0.02	(0.05)	0.00	(0.05)
Intermediate x Time	0.05	(0.03)	-0.03	(0.03)
Management/professional x Time	0.08**	(0.03)	-0.00	(0.03)
<i>Organisational sector: ref is central govt</i>				
Private	-1.89***	(0.26)	0.77*	(0.31)
Other Public	-1.57***	(0.39)	0.82	(0.45)
Local govt or council	0.04	(0.28)	0.29	(0.34)
University or gf educ	-0.40	(0.38)	0.82	(0.48)
Health auth or NHS trust	-1.98***	(0.32)	0.60	(0.36)
Charity or voluntary	-0.63	(0.36)	0.41	(0.41)
<i>Education: ref is no quals</i>				
GCSE or other qual	0.65	(0.45)	0.01	(0.33)
A Levels	1.11*	(0.46)	0.22	(0.35)
Degree	0.96*	(0.45)	0.10	(0.35)
<i>Carer: ref is not a carer</i>				
Carer	0.08	(0.15)	0.19	(0.16)
<i>Age group: ref is under 25s</i>				
25 to 30	0.16	(0.45)	-1.77***	(0.40)
31 to 40	0.39	(0.41)	-1.70***	(0.35)
41 to 50	0.50	(0.41)	-1.52***	(0.34)
51 to 60	0.53	(0.41)	-1.83***	(0.35)
61 plus	0.82	(0.52)	-0.50	(0.47)
<i>No. of employees in org: ref is less than 10 employees</i>				
10-49	-0.38	(0.20)	-0.05	(0.19)

50-199	0.23	(0.21)	-0.51*	(0.21)
200-999	0.27	(0.21)	-0.22	(0.22)
1000 plus	0.12	(0.23)	-0.45	(0.25)
<i>Region: ref is N.Ireland</i>				
North East	-0.14	(0.37)	0.08	(0.40)
North West	0.01	(0.27)	0.44	(0.31)
Yorkshire and the Humber	0.01	(0.29)	0.09	(0.33)
East Midlands	-0.16	(0.29)	0.09	(0.33)
West Midlands	-0.16	(0.28)	-0.12	(0.33)
East of England	-0.30	(0.28)	0.42	(0.32)
London	-0.22	(0.30)	0.43	(0.32)
South East	0.24	(0.27)	0.65*	(0.30)
South West	0.29	(0.27)	0.53	(0.33)
Wales	0.35	(0.31)	0.34	(0.37)
Scotland	-0.11	(0.28)	0.18	(0.31)
N	26989.00		26989.00	

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Source: Understanding Society (University of Essex, 2019), waves 2, 4, 6, 8 and 10. Data are weighted using longitudinal weight $j_indinub_lw$. Balanced dataset of 7,428 UK employees. All coefficients for each variable (regardless of effect) are included in 2010-11 however only the noteworthy time interactions are reported. Appendix 2 includes full details of each of the stepwise models for all four models. Worker-led FWA = use of regular home working, flexi-time, term-time, job share or compressed hours. Other types of FWA = use of part-time, annualised hours, zero hours, on-call and other (unspecified) types.

Table 4.5: Logistic regression models 3 and 4, changes in the use of full-time versus reduced hour flexibility in the UK, 2010-2019

	Model 3 Full-time flexibility		Model 4 Reduced hours flexibility	
	Coefficient	SE	Coefficient	SE
Time	-0.16	(0.17)	-0.31*	(0.14)
Female 2010-11	-0.08	(0.19)	1.76***	(0.23)
Female x Time	-0.02	(0.03)	0.25***	(0.04)
Fathers 2010-11	0.32	(0.20)	-0.48	(0.29)
Fathers x Time	-0.02	(0.03)	0.07	(0.05)
Mothers 2010-11	-0.16	(0.26)	2.63***	(0.34)
Mothers x Time	0.03	(0.04)	-0.02	(0.05)
<i>Autonomy in role: ref is none or very little</i>				
Medium	0.70*	(0.31)	0.20	(0.25)
High	1.52***	(0.27)	0.03	(0.21)
<i>Job class: ref is routine/semi-routine</i>				
Lower supervisory	-0.13	(0.39)	-1.02**	(0.34)
Intermediate	1.02***	(0.26)	-1.00***	(0.23)
Management/professional	0.87***	(0.24)	-1.58***	(0.21)
Lower supervisory x Time	0.00	(0.07)	-0.10	(0.06)
Intermediate x Time	0.12**	(0.04)	-0.04	(0.04)
Management/professional x Time	0.15***	(0.04)	-0.07*	(0.03)
<i>Organisational sector: ref is central govt and civil service</i>				
Private sector	-1.94***	(0.30)	0.50	(0.37)
Other Public	-1.31**	(0.43)	-0.22	(0.54)
Local govt or council	-1.08***	(0.32)	1.49***	(0.39)
University or gf educ	-1.18**	(0.44)	1.09*	(0.53)
Health auth or NHS trust	-2.25***	(0.37)	0.80	(0.42)
Charity or voluntary	-0.64	(0.40)	0.39	(0.50)
<i>Education: ref is no quals</i>				
GCSE or other qual	0.49	(0.58)	0.01	(0.39)
A Levels	0.95	(0.58)	0.23	(0.41)
Degree	0.88	(0.59)	-0.17	(0.41)
<i>Carer: ref is not a carer</i>				
Carer	0.04	(0.18)	0.22	(0.18)
<i>Age group: ref is under 25s</i>				
25 to 30	0.05	(0.57)	-1.67***	(0.47)
31 to 40	0.20	(0.52)	-1.54***	(0.39)
41 to 50	0.29	(0.51)	-1.44***	(0.38)
51 to 60	0.36	(0.51)	-1.92***	(0.40)
61 plus	0.63	(0.65)	-0.25	(0.57)
<i>No. of employees in org: ref is less than 10 employees</i>				
10-49	-0.54*	(0.23)	-0.13	(0.24)

50-199	-0.07	(0.24)	-0.14	(0.25)
200-999	0.46	(0.24)	-0.63*	(0.25)
1000 plus	0.49	(0.26)	-0.76*	(0.31)
<i>Region: ref is N.Ireland</i>				
North East	0.14	(0.40)	0.61	(0.48)
North West	0.06	(0.32)	0.98**	(0.34)
Yorkshire/Humber	-0.24	(0.36)	0.64	(0.37)
East Midlands	-0.30	(0.35)	0.71*	(0.36)
West Midlands	-0.12	(0.34)	0.42	(0.37)
East of England	-0.54	(0.35)	1.00**	(0.36)
London	-0.58	(0.35)	1.10**	(0.37)
South East	-0.02	(0.31)	1.11**	(0.35)
South West	0.43	(0.32)	1.18***	(0.36)
Wales	0.21	(0.37)	1.18**	(0.41)
Scotland	0.15	(0.32)	0.53	(0.36)
N	26989.00		26989.00	

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Source: Understanding Society (University of Essex, 2019), waves 2, 4, 6, 8 and 10. Data are weighted using longitudinal weight *j_indinub_lv*. Balanced dataset of 7,428 UK employees. All coefficients for each variable (regardless of effect) are included in 2010-11 however only the noteworthy time interactions are reported. Appendix 2 includes full details of each of the stepwise models for all four models. Full-time flexibility = use of regular home working, flexi-time or compressed hours. Reduced hours flexibility = use of part-time, term-time or job share.

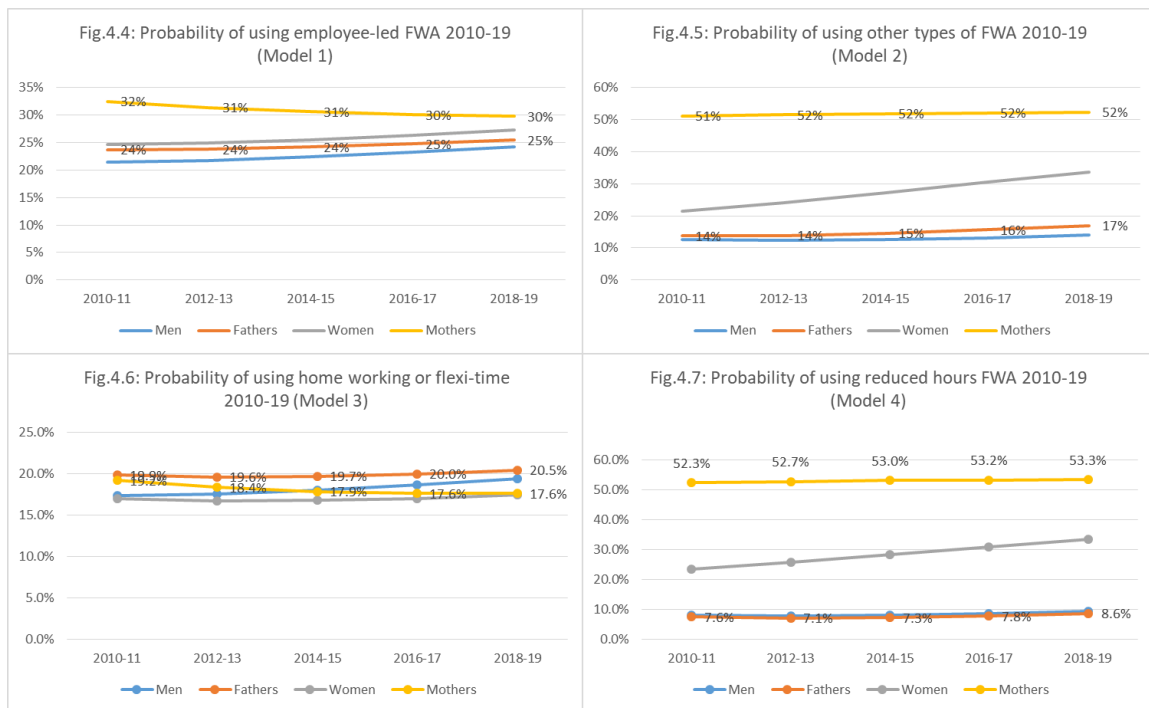
4.2.3 UK fathers have changed very little in comparison to mothers

Model 1 (Table 4.4) suggests that, controlling for other factors in the model, while in 2010-2011 mothers were on average more likely (log odds 0.31, OR 1.36) than fathers to use worker-led flexibility (i.e. home working, flexi-time, compressed hours, job share and term time working), this was not a statistically significant difference. In comparison, Model 2 suggests that mothers were on average around 8 times (log odds 2.13, $p < 0.001$) more likely than fathers to use other types of flexibility in 2010-11, i.e. part-time working and other types of flexibility. Further, regardless of parenting status, women were also nearly 2.5 times (log odds 0.81, $p < 0.001$) more likely than men to use such types of flexible working in 2010-11.

Model 3 (Table 4.5) looks further at the use of home working and flexi-time showing that when only worker-led flexibility associated with full-time working is included, fathers in fact appear more likely than mothers to use these forms of FWAs in 2010-11 although this difference is not significant. Further, Model 4 highlights the difference in the use of reduced hours flexibility (i.e. part-time, term-time and job share) between mothers and fathers; in 2010-11 mothers were significantly more likely (log odds, 2.63, $p < 0.001$) to use reduced hour flexibility than fathers.

Turning to changes over time, the log odds from the models are presented as marginal probabilities in the figures (Figures 4.4 to 4.7) below with the probability percentages for men and women, mothers and fathers. Note that the lines in Fig.4.7 for men and fathers overlap therefore only one line can be seen. These figures show very little change over time in the period 2010-19 between mothers and fathers in all four models. While there have been some increases and decreases in probabilities over time these are small and the log odds of the interaction effects and associated standard errors reported in Tables 4.4 and 4.5 suggest that any change over time is not statistically significant. The exception to this is regarding the use of other types of flexibility by fathers (Model 2, Table 4.4) which has a positive coefficient representing the interaction effect of fathers and time (log odds 0.08, $p < 0.05$). Comparison with Model 4 (Table 4.5) in which the interaction effect is positive but not significant, suggests that any increase in the use of other types of flexibility by fathers may be in relation to other types of full-time flexibility rather than increases in the use of reduced hour flexibility.

In relation to sex differences between non-parents, Figs. 4.5 and 4.7 suggest that women (grey line; non-mothers) over time may be significantly more likely to work in other types of flexibility and reduced hours flexibility than men which is supported by the respective log odds reported in the models (log odds 0.17, $p < 0.001$, Table 4.4; log odds 0.25, $p < 0.001$, Table 4.5).



Figures 4.4 to 4.7: Marginal probabilities from the logistic regression models exploring changes in the use of work flexibility in the UK, Models 1 to 4 (Source: *Understanding Society* (University of Essex, 2019), waves 2, 4, 6, 8 and 10. Balanced sample of $N=7,428$ UK employees, data are weighted using longitudinal weight $j_indinub_lw$)

4.2.4 Small changes in the use of worker-led flexibility over 2010-19

4.2.4.1 Sector, job class and autonomy

The variables for sector, job class and the extent of autonomy in the role appear important in the models that focus on worker-led flexibility, i.e. Models 1 and 3. The effect of job class is also noteworthy in the models that focus on other types of flexibility, i.e. Models 2 and 4, albeit in different directions to Models 1 and 3.

The results suggest that the more autonomy in a role (to decide how to do a task, when and in what order) predicts the use of worker-led flexibility. Those with the highest levels of autonomy were nearly three times more likely to have worker-led flexibility (Table 4.4, Model 1: log odds 0.99, OR 2.69, $p < 0.001$) and over four times more likely to regularly work at home or use flexi-time (Table 4.5, Model 3: log odds 1.52, OR 4.57, $p < 0.001$) in 2010-11 than those with the lowest levels of autonomy.

Further, those working at an intermediate or management/professional level appear significantly more likely than those in semi-routine or routine jobs to have worker-led flexibility in 2010-11. Interactions with the job class and time variables are significant in Model 3 and suggest that the initial gap in the use of home working and flexi-time between the lowest and highest job classes may have widened over time (Figure 4.8).

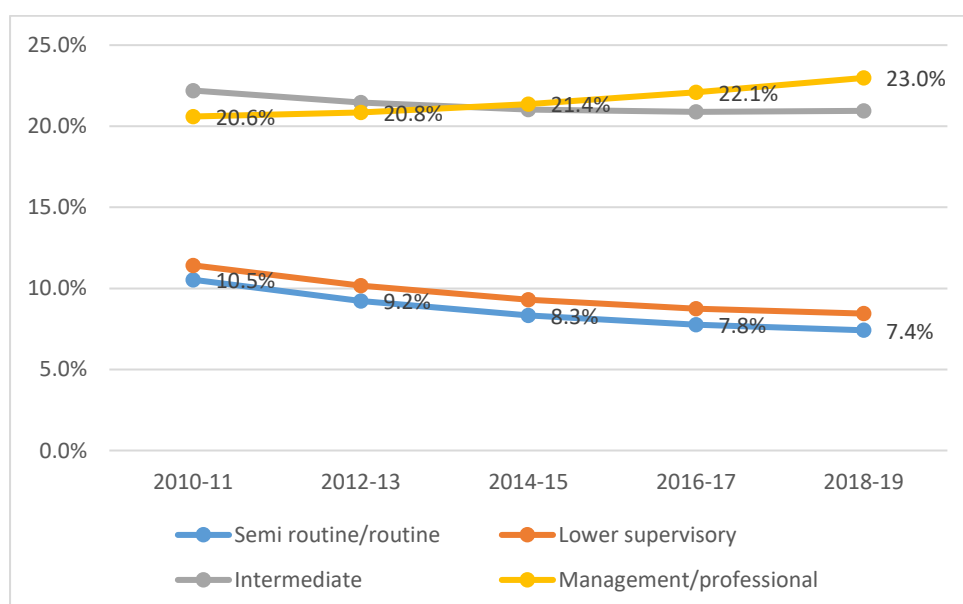


Fig.4.8: Marginal probabilities from the logistic regression models exploring changes in the use of home working or flexi-time by job class, 2010-19 (Source: *Understanding Society* (University of Essex, 2019), waves 2, 4, 6, 8 and 10. Balanced sample of $N=7,428$ UK employees, data are weighted using longitudinal weight $j_indinub_lw$)

In contrast, the results from Models 2 and 4 suggest that employees working at the higher job levels were significantly less likely to work in other types of flexibility and reduced hours work compared to those in semi-routine and routine jobs. However, the marginal probability percentages suggest that this gap has not widened and in fact the probability of the use of reduced hours flexibility appears to have increased across all levels over time (Fig.4.9), including the management/professional levels (19.2% in 2010-11 to 23% in 2018-19).

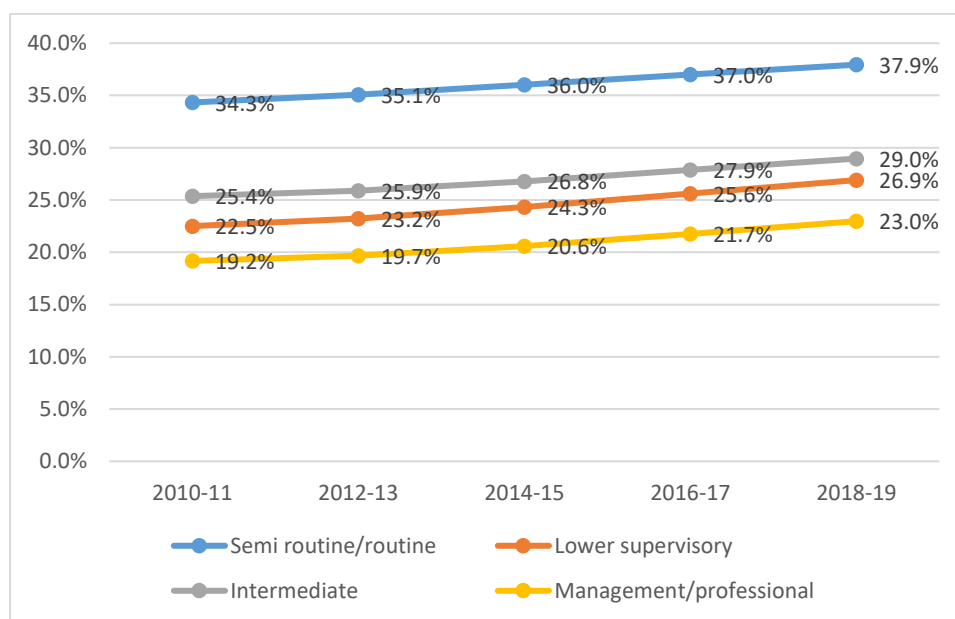


Fig.4.9: Marginal probabilities from the logistic regression models exploring changes in the use of reduced hour flexibility by job class, 2010-19 (Source: *Understanding Society* (University of Essex, 2019), waves 2, 4, 6, 8 and 10. Balanced sample of N=7,428 UK employees, data are weighted using longitudinal weight *j_indinub_lw*)

While the public sector has been found to be better in its flexible work offerings than the private sector (Government Equalities Office, 2010) and its use has also been found to be more common (CIPD, 2019), the additional categories within the public sector variable allow more interesting differences to emerge. For example in Model 1, while those working in the private sector appear significantly less likely than those in central government/civil service to use worker-led flexibility in 2010-11 (Table 4.4, log odds-1.89, $p < 0.001$), those working in a health authority or NHS trust appear similarly less likely to do so (Table 4.4, log odds-1.98, $p < 0.001$). In terms of marginal probability percentages; the probability of using worker-led flexibility in the

central government/civil service sector in 2010-11 is estimated to be just under 48% while for those working for health authorities/NHS trusts usage it is 16.1% and for the private sector it is 19.8%. There appears to have been some small changes over time between sectors. For example the probability of use of worker-led flexibility by private sector employees increased to 22.2% in 2018-19.

Further, the use of other types of flexible working may be likely in the private sector (Table 4.4, log odds 0.77, OR 2.15, $p < 0.05$) compared to central government whereas the use of reduced hour flexibility appears more likely in the local government/council and university/education sector compared to central government. Broadly speaking, the likelihood of working in other types of flexible working and reduced hours flexibility is similar across the sectors and the models suggest that there have been little or no change over the period 2010 to 2019.

4.2.4.2 Size of employer, age, education, region, caring responsibilities

There was some suggestion that the size of employer (by number of employees) may predict the use of flexibility with the direction of the model coefficients suggesting that worker-led flexibility (Model 1) and homeworking/flexi-time (Model 3) may be more likely in larger employers and other types of flexibility and reduced hours may be less likely in larger employers. However, few effects were statistically significant and no significant changes over time were observed.

While the model coefficients suggests that older age groups may be more likely than the youngest age groups to use worker-led flexibility these differences were not significant. In contrast, after controlling for all other variables in the model, age group appeared important in Models 2 and 4 with the over 25s significantly less likely to work in other types of flexibility and reduced hours flexibility in 2010-11 compared to the youngest age group with the exception of the over 60s for whom the difference was not significant. These findings fit with the research around the proliferation of certain types of organisation-led working (i.e. part-time, zero hours) within the youngest age group (Taylor, 2017) and also with the changes made by older age groups as they approach retirement (Atkinson and Sandiford, 2016). The coefficients for the interaction effects for age group and time are positive and also significant and suggest that the older age groups may have become more likely over the period to use other types of flexible working than the younger groups. This may be an effect of the ageing sample but may also be related to changes in the UK pension regime and increase in the state retirement age in the past few years (Wildman, 2020).

In terms of the other control variables, the Model 1 results suggest that, compared to those with no qualifications, those who are educated to degree level (Table 4.4, log odds, 0.96, $p < 0.05$) are

significantly more likely to use worker-led flexibility. However, education does not have a significant effect in the other models and the results suggests that the more noteworthy effects are in relation to job class, autonomy and sector. In terms of region there were few differences in the use of worker-led flexibility and homeworking/flexi-time however the use of reduced hour flexibility appears more likely (at the $p < 0.05$ level) in a number of regions compared to the reference category of Northern Ireland. Finally, although the model coefficients suggest that employees with additional caring responsibilities may be more likely to work in other types of flexibility or reduced hours, these were not statistically significant differences compared to those who had no additional caring responsibilities.

4.3 Discussion

In summary, the above results suggest that, on average, having more autonomy in a role, working at the highest job levels and working in central government increases the likelihood of a UK employee using worker-led flexible working (i.e. regular home working, flexi-time, compressed hours, job shares and term-time work) compared to those employees without such characteristics. These differences existed in 2010-11 and persisted in 2019. There is little evidence to suggest that the use of worker-led flexible working is becoming more widespread in the UK during the period of this study. Indeed, the between-group differences in the use of worker-led flexible working in 2010-11 appear to have changed very little over the period 2010-19 and in fact there may have been a widening rather than a narrowing of the gap between some groups. For example, those working at the higher job levels appear to have become more likely than those at the lower levels over this period to use worker-led flexibility which may be due to the greater possibilities for home working at these levels. Indeed, the small increases in the use of worker-led flexible working over the period 2010-19 appear to be mainly due to increases in the use of home working.

A range of possible explanations exist for the limited increase in worker-led flexible working over the period 2010 to 2019 despite the change in legislation in 2014. This may include limitations regarding the statutory right to request which only applies after an employee has worked for an employer for at least 6 months and also the wide range of business reasons an employer can give for refusing a request. Given concerns over negative career prospects and reduction in pay, employees may be more likely to seek out informal flexibility than formal and this, alongside technological change, means that flexible working may in fact have increased, albeit in a way that it difficult to measure in large-scale survey data (CIPD, 2019).

The availability and use of worker-led flexibility, particularly home working and flexi-time, has been highlighted recently during the Covid-19 lockdowns of 2020 and 2021. During the pandemic large swathes of employees experienced an enforced switch to full-time home working. Many employees were also able to work flexibly in other ways such as using flexi-time to accommodate the home learning of primary school age children. There is much speculation that the pandemic has expedited the increase in the use of these types of flexible working and has changed both employer and employee attitudes that previously may have been sceptical of the benefits or how it would work in practice. Recent research supports this (Chung *et al.*, 2021; Flexibility Works, 2021; Parry *et al.*, 2021) however it is currently unclear how lasting any effect will be and inequalities faced by certain groups during the pandemic from a work perspective cannot be ignored. For example, employees for whom home working and flexi-time was not an option due to the nature of their roles (Warren, Lyonette and The UK Women's Budget Group, 2021). The results above highlight some of these between-group differences and future waves of the Understanding Society data will allow any changes over time to be tracked.

No statistically significant differences between fathers and mothers were noted in the models which looked at the use of worker-led flexible working more generally. However, when focusing on only those FWA associated with reduced hours flexibility and those with FWAs that are less clearly worker-led, differences between fathers and mothers were found. In summary, being female, being a mother, being younger and working at the lowest job levels increased the likelihood of a UK employee using other types of flexibility (i.e. part-time, zero-hours, on call working and other types) and reduced hour flexibility (i.e. part-time, term-time and job shares) compared to those employees without such characteristics. Again, these differences existed in 2010-11 and persisted in 2019. The differences between mothers and fathers do not appear to have widened however the lack of change is disappointing given the starkly different starting points for these groups in 2010-11. While there is some suggestion of a small increase in the use of other types of flexibility by fathers over the period this may be in relation to increases in other forms of full-time flexibility rather than any increase in the use of reduced hour flexibility. Interestingly there appears to have been a small increase in the use of reduced hour flexibility at the management and professional levels alongside increases at all other levels. Given the calls for quality part-time work to be visible at the more senior levels of an organisation (Timewise, 2020) future research may wish to investigate this further.

The results also suggest that women (non-mothers) in the sample became more likely to work in other types of flexibility over the period. The reasons for this were not examined but may suggest the women may keep their part-time hours after their children are no longer dependent.

This may be related to a number of reasons such as anticipation of future, or the existence of, other caring responsibilities (Emslie and Hunt, 2009). Future research may wish to further examine whether women keep their reduced hours and the reasons for doing so, including any barriers at the organisational level which may prevent them from increasing their hours in the future.

These findings are in line with other studies that have taken place over the same period which have consistently found differences between mothers and fathers in perceived access to and use of flexible working (Atkinson and Hall, 2009; Tipping and Perry, 2012; Gatrell *et al.*, 2014; Cook *et al.*, 2021; Faircloth, 2021). For example, Gatrell *et al.* (2014) found that fathers were discouraged from working flexibly because line managers considered flexibility to be irrelevant to them due to male breadwinner norms. This may particularly be an issue for reduced hours work due to the existence of a “macho long hours model” (Atkinson and Hall (2009:660). Indeed, fathers have been found to be less likely to have flexible working requests approved than mothers (Tipping and Perry (2012) and the SPL policy has had a disappointingly low percentage of uptake among fathers (Howlett, 2020; Banister and Kerrane, 2022) suggesting that breadwinning continues to be central to men’s work (Faircloth, 2021). Cook *et al.* (2021) found that in 2014-15 one-third of fathers believed that flexible working arrangements that reduce working hours are unavailable to them, compared to one-tenth of mothers. Reduced hours flexibility may be most resistant to ideal worker norms (Michielsens, Bingham and Clarke, 2013) and indeed while attitudes towards home working and flexi-time (FWAs that fit alongside full-time hours) may be further changing following the pandemic there is no suggestion of a change in attitudes towards the use of reduced hours flexibility.

While the use of home working and flexi-time is broadly similar between mothers and fathers, there appears to have been little change in the use of flexible working for mothers and fathers in reduced hours flexibility and very little change in general over the period 2010-2019 other than in home working. In conclusion, there is scant evidence of a move towards the more widespread use of worker-led flexibility when looking at the period 2010-19 despite the policy focus on flexible working for all.

The findings relate to the use of more formal types of flexibility only however, the use of informal flexibility may be widespread (CIPD, 2019). Indeed the figures reported above suggest that the availability of informal flexible working has increased between 2010 and 2019 however a measure of actual use is not available in the data. Furthermore, as discussed in section 4.2.1 of this chapter, while the effect of time on time-constant predictors such as gender, will be between

people only, the effect of time on the time-varying predictors will be both between people and within people. The models do not distinguish these differences however the overall effect of time on the predictors in the models is small and it is clear that regardless further work is needed to increase the use of reduced hour working by fathers and the use of worker-led FWA more generally.

In addition, given some of the smaller categories within the sector variable, particularly in relation to the smaller public sector categories, the changes over time must be interpreted with caution. Further research may wish to examine these differences. While the models attempted to distinguish flexibility that tends to be more obviously worker-led from other types of flexibility for which this is less clear, a limitation of the data is the lack of clarification of the type/quality of part-time work used by the employees in the sample.

This chapter has built a picture of the use of work flexibility in the UK, looking at both the individual and work characteristics of those who use it as well as the average change over time. These findings contribute to the existing literature on the availability and use of flexible working in the UK in a number of ways. Firstly, the use of Understanding Society data provides valuable triangulation with other research (CIPD, 2012, 2019; Cook *et al.*, 2021). It has reached similar conclusions in terms of the availability and uptake of flexible working and the extent of changes over time and also develops the prior research in this area by looking in more detail at the changes over time between mothers and fathers and highlighting differences between other groups such as those within the public sector and the potential widening gap within different job hierarchies, thus presenting a more nuanced viewpoint and identifying further areas of research to explore. This chapter has also provided an up to date picture of flexible working in the UK by using data covering the period up to December 2019 which will be a useful starting point with which to compare any future changes in flexible working as a result of Covid-19 lockdown.

Further it has shown that the gap in usage between fathers and mothers in relation to reduced hours flexibility does not appear to have changed despite various policy initiatives in this area over a similar period. We know that many mothers desire access to flexibility to help balance their paid and unpaid work (and indeed many mothers have limited choices in this regard due to prohibitive childcare costs). We also know that, on average, mothers in the UK (and elsewhere) do more childcare and housework than fathers which tends to be linked to them working reduced hours, although research has also suggested that mothers who work full-time tend to do more unpaid work than their male partners. However, as discussed in Chapters 1 and 2, we know less about fathers' use of work flexibility and the impact at the household level, specifically

whether it leads to them doing more childcare and housework than fathers who do not work flexibly (and indeed how it affects the levels of unpaid work of their partner). The next chapter examines this in more detail using both survey and interview data.

5 Work flexibility and the unpaid work of dual-earner parent couples

The previous chapter presented the findings from the first phase of this study which analysed representative survey data to examine changes in the use of flexible working in the UK over the period 2010-19. The results of this phase suggest that fathers have changed very little in comparison to mothers in their use of reduced hour (i.e. part-time, term-time and job share) flexibility over the period 2010 to 2019. Further, the results suggests that the small increases in the use of worker-led flexible working (i.e. home working, flexi-time, compressed hours, job share, term-time) over the period 2010-19 appear to be mainly due to increases in the use of home working at the highest job levels. These results suggest that the extension of the right to request flexible working in 2014 to all qualifying employees has not yet achieved its policy aim of flexibility for all.

This chapter, along with the following Chapter 6, presents the findings from the second phase of this study. As set out in Chapter 2, many mothers use work flexibility to organise their paid work around their unpaid work, i.e. childcare and housework, and on average mothers in the UK do more unpaid work than fathers. However, we know less about fathers' use of work flexibility and the impact of both parents' flexibility at the household level, i.e. whether and how it affects couples' divisions of unpaid work. More equal sharing of the unpaid work between couples is seen to be an important part of narrowing the UK's gender pay gap and the literature suggests that work flexibility has the potential to result in positive outcomes at the household level by enabling both mothers and fathers in dual-earner couples to reconcile their paid and unpaid work responsibilities more effectively. However, as also discussed in Chapter 2, the macro and micro level factors affecting the unpaid work of couples are complex and further research is needed to unpick the extent to which work flexibility and other factors play a part in the division of housework and childcare within UK dual-earner parent couples. Given the above, this phase of the study asked:

- In modelling the unpaid work of UK dual-earner parent couples what patterns can be identified in how these couples divide the childcare and housework?
- To what extent do different types (and combinations) of work flexibility for both parents account for these divisions, particularly those couples where the childcare and housework is more equally-shared?
- What insights can the experiences of mothers and fathers in UK dual-earner couples add to existing theories of work flexibility and how couples negotiate work-life boundaries,

the operation of other macro and micro level factors alongside this and the associated outcomes for couples' divisions of unpaid work?

These questions were answered by analysing secondary data from the Understanding Society household longitudinal survey (University of Essex, 2021) using a sample of UK dual-earner parent couples (N=3,851) and by analysing primary data from semi-structured interviews with mothers and fathers (N=19) in dual-earner parent couples in Scotland. Chapter 3 (section 3.3) provided detailed information the data used in this phase of the study and how it was analysed.

The first section of this chapter presents the results of the latent class analysis which modelled the unpaid work of UK dual-earner parent couples using the survey data. Next, the results of the two multinomial models are presented alongside the results of the qualitative analysis. This second section focuses on the relationship between the use of work flexibility and the unpaid work of couples, particularly those couples where the childcare and housework is more equally-shared. The results of the combined quantitative and qualitative analysis offer the advantage of being able to take account of the patterns shown in the representative survey data as well as the different contexts and daily experiences of mothers and fathers in dual-earner couples, giving a “face to the numbers” (Lister, 2005, p. 18). This provides more nuance and understanding as to the reasons for these relationships and the suggestion of additional relationships which the survey data was not able to uncover.

5.1 Divisions of childcare and housework in UK dual-earner couples

Chapter 3 (sections 3.3.1 to 3.3.4) provides detailed information regarding how the sample of dual-earner couples was selected, the survey questions that were used in operationalising divisions of unpaid work, the independent variables included in the models and how the analytical models were built. The indicator variables for the latent classes of couples' unpaid work include, for each of the five time points (for both mothers and fathers), a continuous variable for weekly housework hours and three binary variables regarding divisions of childcare, cooking and cleaning. An average of approximately three time points of observations was available for each couple. The descriptive statistics for these variables are presented in Table 5.1 which shows there were some increases over time for both fathers and mothers in the extent to which they reported whether unpaid work was mainly female or mainly shared/other. As discussed in Chapter 3 (section 3.3.2.2) the “other category” includes couples who indicated that divisions were mainly father or mainly other however these two categories were very small and combined with the larger “mainly shared category” which can be interpreted as “not mother-dominant” divisions. The most noticeable increase was regarding childcare; 56% of fathers and

46% of mothers in the sample in 2010-11 said that childcare was mainly shared, this was over 70% by 2018-19 for fathers and 57% for mothers.

Table 5.1: Descriptive statistics of the unpaid work divisions reported by mothers and father in UK dual-earner couples over five time periods

	2010-11	2012-13	2014-15	2015-16	2018-19
Father	Mean/Prop	Mean/Prop	Mean/Prop	Mean/Prop	Mean/Prop
Weekly housework hours	6.1	6.3	6.0	6.5	6.9
Cooking (shared or other)	45%	46%	48%	47%	50%
Cleaning (shared or other)	46%	47%	50%	51%	52%
Childcare (shared or other)	56%	58%	61%	66%	73%
Mother					
Weekly housework hours	15.1	14.7	13.3	13.6	13.1
Cooking (shared or other)	36%	36%	39%	39%	41%
Cleaning (shared or other)	35%	35%	37%	36%	39%
Childcare (shared or other)	46%	47%	51%	54%	57%

Source: Understanding Society, waves 2, 4, 6, 8 and 10, University of Essex (2021). Data are not weighted. Total observations differed in each wave. For 2010-11 the N for fathers' housework hours was 3,292, for cooking/cleaning this was 3309 and for childcare 3,241 observations. By 2018-19 this was 1,724, 1766 and 1035 respectively. For 2010-11 the N for mothers' housework hours was 3,744, for cooking/cleaning, 3752 and for childcare 3,693 observations. By 2018-19 this was 1,904, 1937 and 1162 respectively.

The variables in Table 5.1 were included in the latent class procedure following the steps described in Chapter 3 (section 3.3.4). Model diagnostics for the possible latent class solutions are shown in Table 5.2. The log likelihood increased and the BIC and AIC decreased with each additional class and plotting the log likelihood, BIC and AIC values showed a levelling off after the five class model. Moving through solutions with a greater number of classes, Table 5.2 shows that model fit was still improving at the eight group solution according to the AIC, BIC and log likelihood. However, after the four class solution the Vuong-Lo-Mendell-Rubin likelihood ratio test and the Lo-Mendell-Rubin adjusted tests were no longer significant, i.e. these tests suggested that the 4 class model over the 3 class model improved model fit ($p=0.004$) but that the 5 class model compared to the 4 class did not ($p=0.255$) and so on. The four, five, six

and seven class models were then compared. The six class model appeared to bring more nuance to the data by identifying a class of couples (not evident in the four or five class models) who had shared divisions of childcare but appeared have more mother-dominant divisions of cooking and cleaning and levels of weekly housework hours. This was of interest given the literature suggesting that housework may be more resistant to change within couples than childcare (Sullivan, 2013). The six class model was then compared to the seven and eight class models however these produced some small classes that were indistinct conceptually from the classes in the six class model. In view of the desire for both an interpretable and parsimonious model the six class model was chosen which was rerun with 500 random starts (Shryane and Chandola, 2018) to ensure the maximum log likelihood was replicated, which was indeed the case.

Table 5.2: Model fit statistics for the potential latent class solutions representing UK dual-earner couples' unpaid work

<i>Number of latent classes</i>	<i>AIC</i>	<i>BIC</i>	<i>LL</i>	<i>Entropy</i>
2	249380	249950	-124599	0.87
3	244587	245413	-122161	0.85
4	241170	242252	-120412	0.84
5	239736	241075	-119654	0.85
6	238466	240061	-118978	0.83
7	237315	239166	-118361	0.82
8	236486	238594	-117906	0.81

Source: Understanding Society, waves 2, 4, 6, 8 and 10, University of Essex (2021). Sample of dual-earner couples with children, N=3847 couples, data are weighted and complex survey design is accounted for. AIC: Akaike's Information Criterion, BIC: Bayesian Information Criterion, LL: log likelihood. Note that the parametric bootstrapped test is not available for use with complex survey data in the MPlus software (version 8, Muthén and Muthén, 2017).

5.1.1 16% of UK dual-earner couples share both the housework and childcare

The divisions of unpaid work for each of the six classes are represented pictorially in Figures 5.1 and 5.2 below. These are interpreted as follows:

5.1.1.1 Class 1

Class 1 appears to have consistently more equally shared divisions (i.e. housework and childcare is not mainly female) in all the unpaid work variables, i.e. the majority of both mothers and

fathers in this class reported that the cooking, cleaning and childcare was mainly shared or mainly male as compared to mainly female, and there appeared to be agreement regarding this. Mean weekly housework hours also supports this (10.4 hours for fathers versus 10.6 for mothers). These divisions appear relatively stable over time with the exception of childcare which appeared to become more shared over the period 2010 to 2019 from both parents' perspective (Fig. 5.1).

5.1.1.2 Class 2

The percentages of mothers and fathers saying that cooking and cleaning were mainly shared/male are low and the gap between fathers and mothers (mean of 3.7 versus 14.9) in weekly housework hours in 2010-11 supports this. However, childcare is more equally-shared with the second highest percentage (after Class 1) across the classes of couples reporting that childcare was mainly shared/other. Some levels of disagreement are noted between mothers and fathers with fathers tending to report higher percentages of sharing than mothers. In relation to changes over time, it appears that divisions of unpaid work as well as housework hours have moved closer together, i.e. have become gradually more less mother-dominant over the period 2010 to 2019 and that this pattern is consistent from both mothers' and fathers' perspectives (Fig.5.1).

5.1.1.3 Classes 3 and 4

While there are quantitative differences in the scoring of the variables between classes 3 and 4, these classes appear qualitatively similar. For example, for couples in class 3 cooking appears to have mother-dominant divisions but cleaning does not whereas in class 4 this is the opposite with cooking being more equally-shared and cleaning not. Mean housework hours are similar in both classes 3 and 4, as is childcare. However this is less clear cut in comparison to the other classes with percentages of couples saying the childcare is mainly shared or mainly male hovering around 50%. Classes 3 and 4 both therefore have elements of mother-dominant but also sharing in terms of couples' unpaid work. Regarding change over time, there appears to be little movement for both housework hours and divisions of cooking, cleaning and childcare although there is some indication that over time childcare has become less mother-dominant for both these classes.

5.1.1.4 Classes 5 and 6

Classes 5 (the largest class, representing 24% of couples) and 6 (the smallest class, 6%) appear to be the most mother-dominant couples in terms of divisions of unpaid work. Class 5 has the lowest percentages of sharing of all the classes on the unpaid work measures. Couples in class 6 appear to be less mother-dominant regarding the childcare than those in Class 5 (although this is

still lower than Classes 1 to 4) however, there is noticeable disagreement in this class, with fathers (50% in 2010-11) tending to say the childcare is mainly shared more often than mothers (35% in 2010-11).

The mean housework hours gap for these classes supports this mother-dominant interpretation however there are quantitative differences here; Class 6 can be distinguished from Class 5 in that it has some extreme values for housework hours and by far the largest housework gap between mothers and fathers. Further, over time, Class 5 appears to be moving towards less mother-dominant divisions of unpaid work (also with a slight narrowing of the housework hours gap) whereas Class 6 appear be moving in the opposite direction, with a more static housework hours gap. Class 6 also appears to have consistently the highest levels of disagreement between parents on all unpaid work tasks.

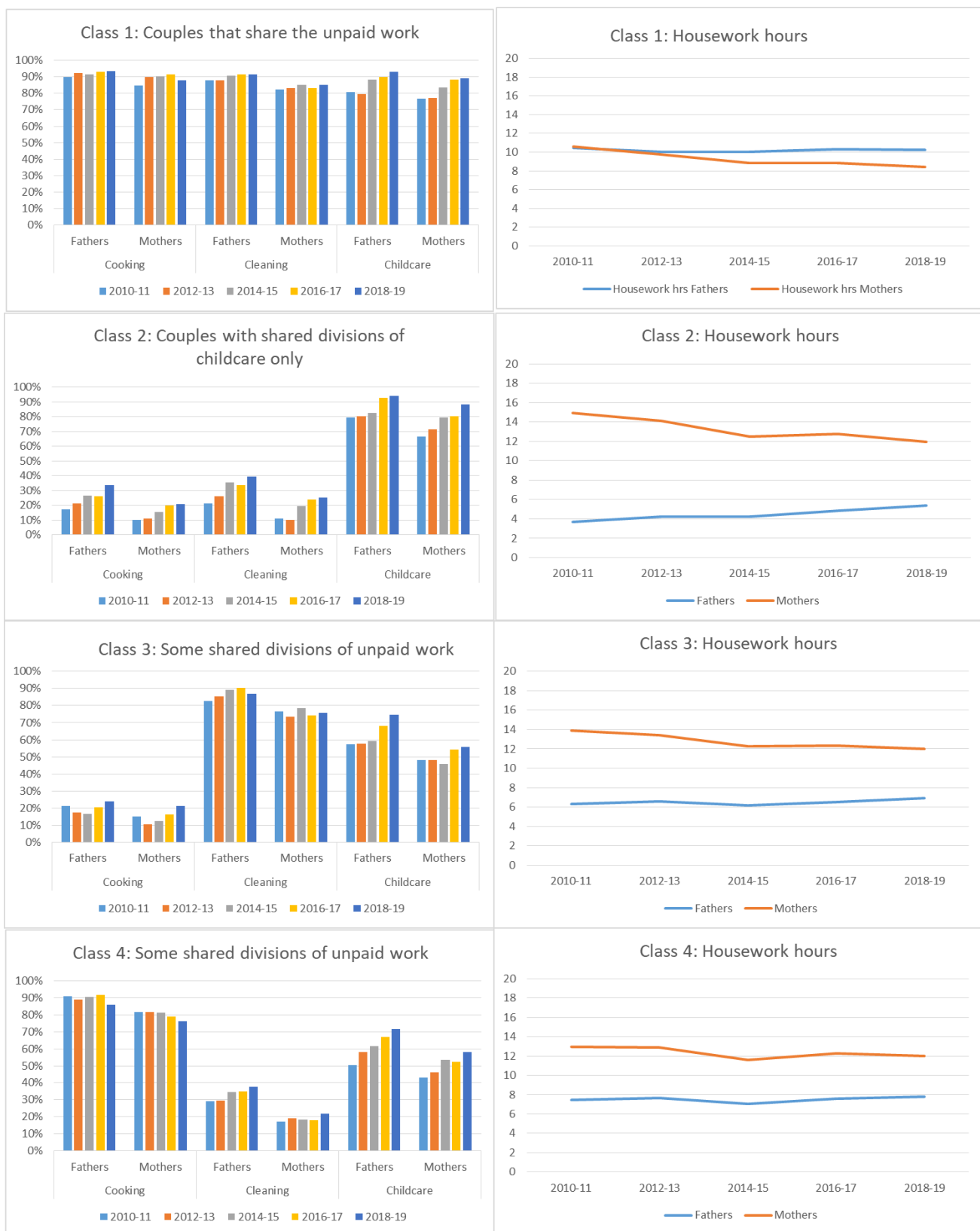


Figure 5.1: Latent class analysis results for Classes 1 to 4. The proportion of mothers and fathers in UK couples saying that cooking, cleaning and childcare were mainly shared together with the number of weekly housework hours reported by both parents. Source: Understanding Society, waves 2, 4, 6, 8 and 10, University of Essex (2021).

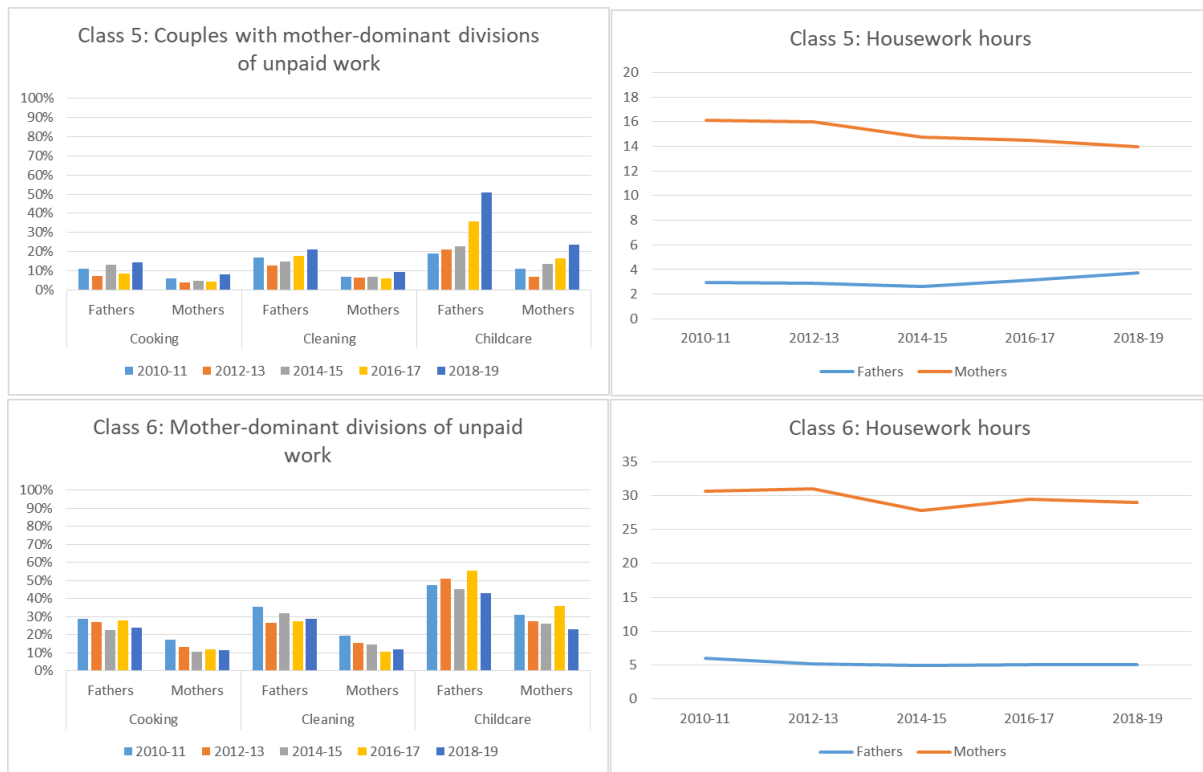


Figure 5.2: Latent class analysis results for Classes 5 and 6. The proportion of mothers and fathers in UK couples saying that cooking, cleaning and childcare were mainly shared together with the number of weekly housework hours reported by both parents. Source: Understanding Society, waves 2, 4, 6, 8 and 10, University of Essex (2021).

These interpretations are summarised in Table 5.3 below. Divisions ranged from strongly shared divisions in 16% of couples (i.e. Class 1: divisions of cooking, cleaning and childcare were all shared and the housework hours gap was narrow) to strongly mother-dominant divisions in 30% of couples (i.e. Classes 5 and 6: divisions of cooking, cleaning and childcare were all mainly mother and the housework hours gap was wide). The remaining 54% of couples showed some elements of sharing of the unpaid work.

Table 5.3 also shows that there were good average classification probabilities in the final six class model which ranged from 82% for class 2 and over 90% for classes 1 and 4. It is expected that some couples have a degree of uncertainty regarding their classification (Collins and Lanza, 2009) and indeed there were a small group of couples for whom probabilities were below 60% for their class, for example of the 629 couples in Class 1, 46 had classification probabilities under 60%. These couples were examined further and tended to be couples where there was only one wave of data available or only one response per couple at a particular time point. Alternative classification probabilities were also considered and not found to be a cause for concern. For example, of those who were grouped into Class 1 by the model the majority of these had an

alternative classification of classes 3 or 4, the classes with some sharing of unpaid work (rather than those that had mother-dominant divisions such as classes 5 or 6).

Table 5.3: The final latent solution representing six classes of UK dual-earner parent couples' unpaid work

Class	Interpretation	N	Classification probability	Proportion of sample
1	Sharers in all areas.	629	91%	16%
2	Childcare sharers. Mother-dominant divisions of cleaning and cooking. Over time appears to be moving towards more shared.	551	82%	14%
3	Cleaning sharers, mother-dominant divisions of cooking, medium sharing on childcare with some disagreement.	695	89%	18%
4	Cooking sharers, mother-dominant divisions of cleaning, medium sharing on childcare with some disagreement.	823	91%	22%
5	Mother-dominant divisions in all areas.	936	87%	24%
6	Mother-dominant divisions in all areas of unpaid work but less so in childcare. Some contested divisions and extreme housework gaps	213	86%	6%

*Source: Understanding Society, waves 2, 4, 6, 8 and 10, University of Essex (2021). Sample of dual-earner couples with children, N=3847 couples, data are weighted using household weight, *b_bhdenub_xw*, complex survey design is accounted for.*

5.2 The relationship between work flexibility and couples' divisions of unpaid work

In this section the quantitative findings from the two multinomial models are first presented. These are then interpreted and discussed alongside the qualitative findings.

5.2.1 Multinomial logistic regression model results

The six latent classes of couples' unpaid work detailed above were included as the dependent variable (i.e. the outcome) in two multinomial models. These models explored the relationship between the work flexibility of the father and mother and the likelihood of class membership, focusing on comparing the classes with more equally shared divisions of unpaid work to those with mother-dominant divisions, controlling for other factors which have been found in the literature to affect unpaid work.

Descriptive statistics for the independent variables in the models for each latent class are included in Table 5.4 below. This suggests some differences in the use of FWA by each class of couples. For example, 13% fathers in Class 1 work part-time (couples with more shared divisions of housework and childcare) compared to 4% in Class 5 (couples with mother-dominant divisions). Class 6 shows higher percentages of self-employed mothers and fathers compared to the other classes. Regarding the other independent variables Class 1 appears to have the highest percentages of mothers with a degree and who are in professional and managerial roles. Class 1 also displays the most non-traditional gender role attitudes for both mothers and fathers of all the classes.

Table 5.4: Proportion of mothers and fathers in each latent class of UK dual-earner couples by the independent variables

Classes	1	2	3	4	5	6
Categorical variables						
<i>FWA:</i>						
Father flexi-time	24%	17%	21%	21%	16%	18%
Father homeworking	13%	17%	16%	18%	15%	13%
Father informal available	80%	80%	81%	83%	82%	79%
Father part-time	13%	7%	9%	6%	4%	8%
Father self-employed	21%	29%	20%	21%	29%	34%
Mother flexi-time	26%	25%	28%	25%	20%	22%
Mother homeworking	20%	11%	12%	15%	12%	13%
Mother informal available	84%	78%	82%	81%	80%	80%
Mother part-time	46%	63%	61%	66%	76%	81%
Mother self-employed	12%	12%	13%	12%	17%	20%
<i>Other independent variables:</i>						
Father has degree	41%	43%	50%	45%	40%	37%
Mother has degree	61%	48%	56%	50%	42%	42%
Father in prof/managerial role	49%	51%	56%	54%	52%	46%
Mother in prof/managerial role	66%	55%	57%	53%	43%	32%
Mother earns same/more than father	59%	43%	39%	42%	25%	32%
Household income in top decile	14%	8%	13%	9%	9%	5%
Continuous variables						
Father gender role attitudes	0.9	-0.27	0.1	0.5	-0.83	-1.1
Mother gender role attitudes	0.9	0.1	0.3	0.4	-0.91	-1.3
Age of couple	40.1	40.1	39.5	39.2	38.9	39.9
Age of youngest child	8.1	8.7	7.7	8.0	7.6	7.3
Number of children	1.4	1.5	1.5	1.5	1.68	1.8

Source: Understanding Society, waves 2, 4, 6, 8 and 10, University of Essex (2021). Sample of dual-earner couples with children who had information on FWA, Unweighted N=2,529. Missing data on FWA was identified for both fathers and mothers. For example Class 1 has 629 couples of which 96 fathers and 51 mothers had missing data on FWA. If a couple was missing information on the independent variables for either the mother or father that couple was excluded from the final model.

Chapter 3 (section 3.3.4) provides detailed information regarding the independent variables included in the models and how the two multinomial models were built.

Table 5.5 below presents the final Model 1. The dependent variable is the six latent classes of unpaid work with the reference category being Class 5, the largest class with mother-dominant divisions of unpaid work. Class 1 are parents who share both childcare and housework, Class 2 share the childcare only, Classes 3 and 4 have some sharing of the housework and childcare, Class 6 has traditional divisions with extreme amounts of housework for the mother. The model has five parts which each compare the likelihood of being in Classes 1, 2, 3, 4 and 6 to the

reference category of Class 5 based on the independent variables in the model. Class 5 was chosen as the reference category in the model given that it was the largest class and also appeared to be, along with Class 6, the class with the most mother-dominant divisions of unpaid work. This allowed comparisons to be made with those classes demonstrating more shared divisions in accordance with the research question. The stepwise models for Model 1 are included in Appendix 4 together with the model diagnostics at each step. In terms of the final model presented, the result of the generalised Hosmer–Lemeshow statistic for multinomial logistic regression models was not significant (chi-squared = 42.5, $p=0.363$) suggesting that the fit of the final model may be acceptable (Fagerland and Hosmer, 2012). In addition, tests of the independence of irrelevant alternatives (IIA) indicated that the assumption was not violated (Williams, 2017b).

Table 5.6 below presents the final Model 2 which is the alternative household-level model described in Chapter 3 (section 3.3.4.2). This includes the same independent variables as Model 1 but with these measured at the household level only in order to highlight the effect of different combinations of couples' flexibility. The results present the key regression coefficients for measures of couples' flexibility only; the full model is presented in Appendix 5.

Table 5.5: Model 1, multinomial logistic regression model of the relationship between parental flexibility and couples' divisions of housework and childcare

	Latent classes of couples' unpaid work				
	Class 1	Class 2	Class 3	Class 4	Class 6
	Log odds				
Father flexi-time	0.61* (0.24)	-0.04 (0.26)	0.24 (0.23)	0.24 (0.24)	0.37 (0.37)
Mother flexi-time	-0.15 (0.23)	0.07 (0.25)	0.32 (0.23)	0.06 (0.22)	-0.31 (0.35)
Father regular homeworking	-0.42 (0.27)	0.01 (0.28)	-0.13 (0.25)	-0.13 (0.25)	0.07 (0.42)
Mother regular homeworking	0.44 (0.29)	-0.14 (0.35)	-0.14 (0.30)	0.23 (0.26)	0.46 (0.42)
Father part-time	0.86* (0.35)	0.56 (0.40)	0.50 (0.37)	0.35 (0.36)	1.05* (0.52)
Mother part-time	-0.69** (0.23)	-0.19 (0.23)	-0.36 (0.21)	-0.13 (0.21)	0.35 (0.40)
Father informal flex available	-0.19 (0.29)	-0.33 (0.28)	-0.23 (0.26)	-0.09 (0.26)	-0.04 (0.36)
Mother informal flex available	0.28 (0.27)	-0.07 (0.25)	0.11 (0.23)	0.19 (0.24)	0.18 (0.35)
Father self-employed	-0.82* (0.36)	-0.26 (0.34)	-0.66* (0.33)	-0.67* (0.30)	0.18 (0.42)
Mother self-employed	-0.10 (0.40)	-0.57 (0.39)	-0.18 (0.32)	-0.09 (0.29)	0.28 (0.49)
Father gender role attitudes	0.11*** (0.03)	0.03 (0.03)	0.04 (0.03)	0.07* (0.03)	-0.02 (0.04)
Mother gender role attitudes	0.08* (0.04)	0.06 (0.03)	0.07* (0.03)	0.08* (0.03)	-0.03 (0.05)
Father has degree	-0.05 (0.23)	0.11 (0.24)	0.36 (0.22)	0.36 (0.20)	-0.12 (0.34)
Mother has degree	0.20 (0.24)	0.06 (0.23)	0.17 (0.22)	0.08 (0.20)	0.22 (0.31)
Father in prof/managerial role	-0.51* (0.22)	-0.03 (0.22)	-0.22 (0.21)	-0.12 (0.20)	-0.42 (0.33)
Mother in prof/managerial role	0.47* (0.22)	0.28 (0.24)	0.27 (0.20)	0.06 (0.21)	-0.28 (0.33)
Mother earns same/more than father	1.07*** (0.25)	0.70** (0.26)	0.51* (0.23)	0.68** (0.22)	-0.09 (0.41)
Age of couple	0.01 (0.02)	-0.00 (0.02)	0.01 (0.02)	-0.01 (0.02)	0.08* (0.03)
Age of youngest child	-0.01 (0.04)	0.06 (0.04)	-0.00 (0.03)	0.03 (0.03)	-0.08 (0.05)
Number of children	-0.21 (0.15)	-0.15 (0.14)	-0.16 (0.13)	-0.17 (0.12)	0.24 (0.19)
Top decile household earnings	0.48 (0.35)	0.06 (0.34)	0.18 (0.32)	-0.19 (0.31)	-0.88 (0.88)

Pseudo R squared

6.1%

Standard errors in parentheses, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Source: Understanding Society, waves 2, 4, 6, 8 and 10, University of Essex (2021). Data are weighted. Unweighted N=2,529 couples. Reference category is Class 5, couples with mother-dominant divisions of housework and childcare.

Table 5.6: Model 2, multinomial logistic regression model of the relationship between combinations of parental flexibility and couples' divisions of housework and childcare. Household level variables only

	Latent classes of couples' unpaid work				
	Class 1	Class 2	Class 3	Class 4	Class 6
<i>Regular home working: ref is neither parents use it</i>					
Mother homework	0.29 (0.33)	-0.19 (0.36)	-0.21 (0.34)	0.25 (0.30)	0.22 (0.51)
Father homework	-0.54 (0.34)	0.01 (0.30)	-0.17 (0.27)	-0.07 (0.27)	-0.11 (0.52)
Both homework	0.22 (0.48)	-0.14 (0.62)	-0.16 (0.51)	0.03 (0.48)	0.80 (0.66)
<i>Use of flexi-time: ref is neither</i>					
Mother flexi-time	-0.13 (0.27)	-0.05 (0.30)	0.40 (0.26)	-0.04 (0.25)	-0.22 (0.38)
Father flexi-time	0.65* (0.28)	-0.24 (0.32)	0.36 (0.26)	0.15 (0.28)	0.39 (0.41)
Both flexi-time	0.45 (0.41)	0.30 (0.41)	0.46 (0.42)	0.43 (0.39)	-0.03 (0.68)
<i>Part-time working: ref is neither</i>					
Mother part-time	-0.67** (0.24)	-0.18 (0.24)	-0.40 (0.21)	-0.16 (0.21)	0.41 (0.41)
Father part-time	1.39 (0.97)	0.88 (1.03)	0.48 (0.99)	0.67 (0.98)	1.64 (1.53)
Both part-time	-0.18 (0.39)	0.21 (0.50)	0.11 (0.41)	0.04 (0.41)	1.26* (0.59)
<i>Self-employment: ref is neither</i>					
Mother self employed	-0.23 (0.43)	-0.56 (0.44)	-0.36 (0.34)	-0.26 (0.32)	0.34 (0.55)
Father self employed	-0.85* (0.36)	-0.23 (0.36)	-0.73* (0.36)	-0.76* (0.32)	0.20 (0.43)
Both self employed	-0.86 (0.90)	-0.98 (0.75)	-0.54 (0.66)	-0.49 (0.61)	0.31 (0.89)
<i>Informal flexibility: ref is neither</i>					
Mother informal	-0.15 (0.55)	-0.49 (0.50)	0.18 (0.51)	0.23 (0.55)	-0.14 (0.71)
Father informal	-0.63 (0.54)	-0.73 (0.48)	-0.15 (0.49)	-0.04 (0.52)	-0.31 (0.69)
Both informal	-0.16 (0.48)	-0.64 (0.43)	-0.05 (0.46)	0.16 (0.51)	-0.05 (0.60)

Standard errors in parentheses, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Source: Understanding Society, waves 2, 4, 6, 8 and 10, University of Essex (2021). Data are weighted. Unweighted N=2,529 couples. Reference category is Class 5, couples with mother-dominant divisions of housework and childcare. All variables are at the household level. This table presents only the key measures of couples' flexibility; the full model with control variables is reported in Appendix 5.

5.2.2 Fathers' work flexibility may be associated with more equally-shared divisions of unpaid work

Table 5.5 suggests that couples in which fathers used flexi-time are almost twice as likely than couples in which the father did not use flexi-time to be in Class 1 than Class 5 (log odds 0.61, $p < 0.05$). In probability terms, all else being equal (including how flexibly the mother works) couples in which the father works flexi-time are 6.1 percentage points more likely to share the unpaid work and 4.2 percentage points less likely to have mother-dominant divisions of unpaid work than couples in which the father does not work flexi-time. The household level model results (Table 5.6) support these findings and allow different combinations of couples' flexibility to be explored. Overall the findings regarding the use of flexi-time are similar; couples in which the father uses flexi-time (but the mother does not) appear more likely (Table 5.6, log odds 0.65, OR 1.91, $p < 0.05$) to be in Class 1 than Class 5. While couples in which both parents use flexi-time also appear more likely (log odds 0.45, OR 1.56) to be in Class 1 than Class 5, this effect is not significant.

It is also useful here to look to the interview data for further insights and explanations for this relationship. Full details regarding the demographics of interview sample and how the data were analysed are presented in Chapter 3 (sections 3.3.5 to 3.3.8). Table 5.7 below provides a summary of the different types of work flexibility used by the participants and their partners together with whether their division of unpaid work was interpreted as broadly mother-dominant or shared. How these categories of divisions of unpaid were determined is discussed in more detail in the following Chapter 6 (section 6.1).

5.2.2.1 *A note on the Scottish context*

In 1999 the UK Parliament passed the Scotland Act 1998 which transferred some of the powers previously held at Westminster, establishing the Scottish Parliament at Holyrood. These powers have developed over the last 20 years and cover a wide range of policy areas such as economic development, education and training, the environment and housing. Most recently this included The Scotland Act in 2016, which devolved further powers to Scotland including significant areas of income tax and welfare. Matters reserved to the UK Parliament at Westminster include those related to employment and anti-discrimination law, many aspects of benefits and social security and immigration. Small differences exist between Scotland and the rest of the UK as a result of the devolved context. For example state childcare provision is slightly more generous in Scotland than the rest of the UK and the application of the public sector equality duty also goes further. Also Scotland's median gender pay gap was 15.6% in 2017 compared to 18.9% in England and 18.1% in the UK as a whole (Office for National Statistics, 2017).

However, shared legislation in terms of the right to request flexible working and the introduction of Shared Parental Leave means there are likely to be similarities in the lived experiences of Scottish couples and other couples outside of Scotland (but within the UK). Region was included as a control variable in the models reported in Chapter 4; the findings for Scotland in terms of the availability and use of flexible working were similar to the findings for the UK as a whole. It is not therefore expected that the experiences of Scottish dual-earner couples in their experiences of work flexibility will differ substantially from those in England, Wales and Northern Ireland.

Table 5.7: Couples' combinations of work flexibility in the interview participants

Pseudonym of participant	Participant			Participant's partner			Div. of unpaid work
	Working pattern	Flexible start and finish	Regular home work	Working pattern	Flexible start and finish	Regular home work	
Fay	FT	Yes	Yes	FT	Yes	Yes	MD
Violet	RH (3 days or less)	No	No	FT	No	No	MD
Julia	FT	No	No	RH (24 hrs pw)	Yes	Yes	S
Rebecca	RH (4 days)	Yes	Yes	FT	No	No	S
Katherine	RH (3 days, school hours)	Yes	No	FT	No	No	MD
Kim	RH (12 hrs pw)	No	No	FT	No	Yes	MD
Christina	FT	Yes	Yes	FT	Yes	No	S
Sophia	RH (3 days)	Yes	Yes	FT	No	No	MD
Hilary	RH (5 days, school hrs)	Yes	No	FT	No	No	MD
Talia	FT	Yes	No	FT	No	No	MD
Maria	FT	Yes	No	FT (shifts)	No	No	S
Haniyah	FT	Yes	No	FT (shifts)	No	No	S
Elliott	RH, 3 days or less	Yes	Yes	FT	Yes	Yes	S
Adam	FT	Yes	No	RH (3 days)	Yes	Yes	MD
Daniel	FT	No	Yes	RH (3 days)	No	No	MD
Ian	FT	Yes	Yes	FT	Yes	No	S
Declan	FT	Yes	Yes	RH (4 days)	Yes	No	S
John	FT	No	No	RH (3 days, shifts)	No	No	MD
Michael	FT	Yes	Yes	FT	No	No	S

Key: FT = Full-Time; RH = Reduced Hours

MD = mother-dominant divisions of unpaid work; S = shared/father-dominant divisions of unpaid work. Interviews took place with mothers and fathers in dual-earner parent couples living in Scotland during April to October 2019

Table 5.7 shows that a number of fathers used flexi-time (Elliott, Declan, Michael, Ian, Adam) which helped them fit in drops off and pick-ups of primary/nursery school age children into their working day:

So...yeah, so I drop the wee one off at nine o'clock with D [childminder] ...and I realise I forgot the lunch, which was in the kitchen, so I had to go back to the house, to go back to the childminder's, to leave it on the step because she was away and then come back here. So I eventually got here about twenty past nine this morning...and...started meetings in here at half past nine today (Declan)

...so we leave just before eight o'clock and get in at eight...maybe a couple of minutes past eight for the breakfast club...yeah, along with all hundreds of other kids! So...I usually take about ten minutes just to get into breakfast club, so once...once my son has signed in, I walk to the train station which takes about...twenty minutes walking and get on the train...which takes...about half an hour and I get to work just after nine o'clock (Michael).

These fathers were not tied to set start and finish times and the quotes show that this gave them flexibility for things to go wrong (e.g. forgotten lunches, late running trains). The female participants also provided examples of how they and their male partners used their flexi-time to be involved in this way.

How these parents used flexi-time varied and appeared to depend on whether one or both parent had flexibility but also on the number of hours each parent worked and the number and ages of children they had. In Michael's case he used his flexi-time to take his oldest child to school each day while his partner who worked 8-4pm (full-time, no flexi-time) took their youngest child to nursery on the way to work; picking up both up in the afternoon. In Adam's case his wife (who worked 21 hours a week) had changed jobs to one that involved a longer commute and on the days she travelled into work he organised their children in the mornings and took them to nursery. Adam worked full-time as a secondary school teacher in an independent school and described an informal flexi-time arrangement with colleagues to "keep an eye on things" on the days that he arrived at school slightly later (at around 9am) than school began (at 8.40am).

In these examples, fathers were using flexi-time to do childcare. Discussions around childcare tended to dominate but there was also discussion about housework and the two may be closely

linked such as preparing breakfast for the family/clearing the kitchen as part of getting the children ready in the mornings.

In Christina's case she and her partner both worked roughly the same number of full-time hours (both in professional roles), they both used flexi-time to share drop-offs and pick-ups at nursery for their son and in Christina's view the unpaid work was shared:

“...so we do everything half and half, we're very fair ...I like to say that for our son, we are commodities, so he's not like 'only mummy' or 'only daddy' it's just whoever is around...so...so...we split everything half and half, all type of responsibilities like cleaning, cooking...which is amazing.”

The quantitative results suggest that it may be Christina's full-time hours along with her partner's flexi-time that informs the couple's shared divisions of unpaid work (Tables 5.5 and 5.6: mothers working part-time were half as likely as those working full-time to be in Class 1 over Class 5 (log odds -0.69, $p < 0.01$). Indeed in comparison, Adam's partner worked 3 days a week and on the days she was not working Adam went into school much earlier; he recognised that his partner did more childcare than him (although he did indicate that this reversed during the school holidays because of the nature of his term-time teaching role).

One female participant had a partner who did not have access to flexi-time and expressed frustration in this regard. Hilary worked in a term-time administrative role and used flexi-time to organise her working day around school drop-offs and pick-ups for her three children; the couple's divisions of unpaid work appeared mother-dominant. Her partner worked full-time in construction, a role in which he left the house very early each day and it was not predictable when he would return in the evening. She described a situation in which she wanted to work some extra hours but was not able to do this as she needed her partner to be there before/after school once a week (outsourcing the childcare was not an option for her due to limited financial resources):

...so for instance, we're very short-staffed at work just now...and...we're going to be advertising for another post but...I had the option if I can work the extra hours, they're there for me. So I said ...'Could I...could we come to a compromise? It's only going to be for six weeks...can you pick the kids up one day or take them to school one morning just so I can go in and help out for a couple of hours?' But...his work is not as flexible... he was like, 'You know, I can't turn up to my work at half past nine...you know, after the school starts.' The site opens at half seven, so there wasn't much...aye...there wasn't

much leeway there, it was his way or the highway, which I understand, but...you know...it's just the way it is I suppose.

Hilary's partner's options for flexibility appeared limited due to the nature of his role which meant that he was not involved with the childcare during his working day. However, in her wider account Hilary indicated that it was unlikely that her partner would have the confidence to request flexibility or attempt to negotiate something with his employer, highlighting a lack of agency but also perhaps a symptom of the male dominated workplace he was in. Therefore, even if the flexi-time was available to Hilary's partner he may not have used it (or been encouraged to use it) due to traditional gender role attitudes (his or his colleagues) and perceptions of flexible working being predominantly used by mothers (Cook et al, 2021). Indeed, the results in Table 5.5 suggest that non-traditional gender role attitudes of fathers (log odds 0.11, $p < 0.001$) and mothers (log odds 0.08, $p < 0.05$) may also be related to shared divisions of unpaid work. This is supported by the household level model which indicates that couples with shared non-traditional gender role attitudes are nearly three times more likely to be in Class 1 than Class 5 (Appendix 5, log odds 1.02, OR 2.77, $p < 0.001$). It appears that it is the combination of non-traditional attitudes at the couple level rather than mother-only or father-only that is important which is consistent with the findings of McMunn et al (2020).

Table 5.5 also suggests that couples in which fathers work part-time may be more likely to be in Class 1 than Class 5. Couples in which the father worked part-time (defined as 30 hours a week and under) appear over twice as likely (log odds 0.86, $p < 0.05$) than couples in which the father did not work part-time to have shared divisions rather than mother-dominant divisions of unpaid work. In probability terms this suggests that, all else being equal, couples in which the father works part-time are 6.2 percentage points more likely to share the unpaid work and 9 percentage points less likely to have mother-dominant divisions of unpaid work than couples in which the father works full-time. The results for fathers in Table 5.6 are consistent with this; couples in which the father works part-time and the mother works full-time appear more likely to be in Class 1 (log odds 1.39, OR 4.01). However, this effect is not significant and this may be as a result of some small group sizes in each class; not many fathers in the sample work part-time.

There was one male participant in the interview sample, Elliott, who worked part-time. Elliott had taken shared parental leave and had recently returned to work 14 hours a week which he fitted in around childcare. He also had a flexible start and finish, doing all his work from home. His partner worked full-time with some flexi-time and home working. One of their children was

at primary school while the other (under 12 months) was not in any kind of childcare as it was the couple's preference to keep them at home until they were of school nursery age. Elliott indicated that on balance he saw himself as the primary carer for their children although his partner still did a lot in this regard (e.g. she was still breastfeeding their youngest) and he gave examples of them both being involved in the housework. He described interactions with his partner during a typical working day:

“And we're kind of in constant communication in terms of all the practical things. I'm literally constantly...like every...because there isn't really any set day, it will literally be like... 'What have you got? What have I got today?' And...will I pick him up from the bus today, will you pick him up from the bus today? Or I'll just nip out to the shops like...yeah...pretty much constant communication over the various practical things”

Elliott and his partner made adjustments in their work domains to accommodate family needs, and vice versa and their work flexibility from flexi-time and home working appeared to enable this. The quote also give a sense of a shared responsibility within the couple to resolving work-family conflicts which was found by Radcliffe and Cassell (2015) to exist in UK dual-earner professional couples when both the mother and father had work flexibility. However, the model results suggest that it is Elliott's part-time hours that may have a greater effect (looking at the average marginal probabilities) in predicting the couple's shared/father-dominant divisions of unpaid work than his flexi-time or home working.

Also important to note here is the effect of relative earnings in the models. Couples in which the mother earned the same or more than the father were 8 percentage points more likely (Table 5.5, log odds: 1.07, $p < 0.001$) to have shared divisions of unpaid work than couples in which the mother earns less than the father. This effect holds even after part-time working is controlled for in the models. A number of the interview participants referred to issues of relative earnings which were connected to perceptions of whether their or their partner's career took priority. In Adam's words, “I am earning pretty much twice what she does and so...if we have to be careful about one particular job, it's kind of that one, if you like”. The participants' experiences in this regard are discussed in more detail in the following chapter.

5.2.3 Homeworking fathers may be helpers not sharers

The model in Table 5.5 shows no significant effect for home working for fathers or mothers when comparing Class 1 with Class 5. Couples in which fathers or in which mothers regularly worked at home appeared no more likely to share the unpaid work than couples in which the parents do not work from home. This is supported by Table 5.6.

Looking to the qualitative data for explanations, there were a number of interview participants who worked at home or who had partners who worked at home. In Kim's case she worked 12 hours (over two days) a week while her partner Malcolm worked full-time in a managerial job; he worked at home all of the time following a switch to home-based working introduced by his employer a number of years before. The couple have two teenage children, the younger one is disabled. Kim had taken a number of years out of paid work after the birth of her younger child and had recently returned to paid work:

Researcher: And tell me about how, kind of, you and your husband arrange things, I suppose in terms of your paid work. I know you say that he's at home, so that kind of facilitates you being able to go out, you know.

Kim: Well...I mean my fifteen-year-old, he volunteers down at the canal, so he's obviously, 'Can I get a lift down here?...' So there's always something going on, so Malcolm is in the house, so basically he's able to be the anchor... a lot of the time he's in the house for...for the parcel deliveries! And when the dog walker comes once a week he's in the house to give the dog over, so there's loads of things like that, that work from the home means that...you know, one I can be free and two, I can work, so yeah...so there's loads of benefits for him being in the house and me being able to do all the running around...and just keep things chugging along, you know.

Kim's analogy to her partner as that of an "anchor" is interesting; home working of the father was used to maintain the stability of the home by the father being there to deal with family needs (e.g. giving lifts to children, doing small jobs) while Kim was not there and enable Kim to go out to work. Note here that Kim's situation was affected by the additional needs of her youngest child and the fact that she was limited to working only 12 hours a week due to her caring responsibilities and the claiming of a carer's allowance. The paid work she was involved in was low-skilled (although in fact she has a degree and used to work in a managerial role) and inflexible with set hours and location, organised around school hours so she could be at home when her children were. She was very clear that she took on the majority of the housework and childcare. Indeed, as already mentioned above, the models suggest that couples in which the mother works part-time or earns less than the father are significantly less likely to have shared divisions of unpaid work which is consistent with Kim's experience.

Kim's account of her partner working at home is similar to the way in which another participant, Daniel, described how he worked from home. Daniel had regularly worked from home for most his career. His partner had worked part-time since they had their three (now teenage) children.

Daniel was clear that his partner took the lead on the unpaid work and that when he worked at home he was very much focused on his paid work as illustrated in the following quote:

I can...sit in a house in which every room looks broadly similar to this and so long as I can see the computer screen and the article that I'm thinking about or the spreadsheet that I'm trying to collate and all that stuff, it can all just pass me by...and it frequently does and I know that irritates the hell out of her because I don't do as much around the house as I should...

Daniel had recently increased the time he spent working at home each week (arranged to coincide with the two days a week that his partner was out at work) which was directly related to making sure at least one parent was at home when his youngest child got home from school. His increased home working had in fact led to more blurring of boundaries between home and work than he was used to and it was clear he had increased his involvement with his child as a result.

Fay had recently moved to self-employment and was able to work at home all the time; her partner had to be present in the workplace at certain times although he had the flexibility to work at home and some flexi-time at other times. They both worked full-time hours, had two secondary school age children, one of whom was home schooled:

Researcher: So tell me about how self-employment helps you fit in with your other responsibilities.

Fay: Yeah...well you're completely in charge...I mean you can break off...whenever you like and pick up again whenever you like...If I do need to meet a deadline and I have had to...and I have to work long weekends and work evenings I can...My children are older now, it's a different scenario than when they were younger, when they need you at a particular time and you have to...they need to be physically looked after...they don't need me to physically look after them, but they do need me there, you know, a lot of the time. The freedom is incredible.

Fay described the different ways she was involved with her children from connecting with her son after school, supervising her daughter's home school curriculum, walking the dog, fitting in cleaning during the day and in her words "doing all the thinking". At times Fay appeared resentful of the couple's mother-dominant divisions of unpaid work but also acknowledged that her move to self-employment had solved a lot of the issues the family had previously had with organising the childcare and balancing their daughter's home school needs. Fay's account fits

with Hilbrecht et al.'s (2008) findings that female home workers' schedules are closely tied to the rhythms of children's school and leisure activities. She took on the primary carer role whereas in Daniel and Kim's partners' cases home working appears less interrupted, they could continue to be focused on paid work with their anchoring presence in the home allowing them to "help" their female partner with the unpaid work when required. However, according to the models, a mother's home working did not have a significant effect in predicting couples' membership of the more traditional Class 1 over Class 5.

While there were examples of fathers using home working in the interviews that were consistent with the quantitative findings, there were also other male participants (Declan, Elliott) who worked at home and did so in a similar way to Fay as primary carers, with their paid work closely tied to their childcare responsibilities. This category of fathers did not emerge from the quantitative analysis because in the data couples who said that the childcare was mainly male (less than 2%) was so small it was not possible to include them as a separate category in the latent class analysis. It is possible that these fathers may form part of a more emergent, younger group of fathers who took shared parental leave or had a wider range of flexible working options available to them than the older participants. Indeed, there were suggestions of differences in the divisions of unpaid work when comparing the participants with younger children to those with older children which are explored further in the following chapter.

Regarding the other measures of flexibility, overall, couples in which fathers were self-employed appeared less likely to be in Class 1 than Class 5 (log odds -0.85, OR 0.42, $p < 0.05$). The reasons for this are unclear and only one participant in the interview sample was self-employed so no further insight is possible. It appears self-employed fathers are more likely to be in couples with mother-dominant divisions of unpaid work and future research may wish to explore this and include a more nuanced measure of self-employment than in this study which was unable to distinguish between the wide range of self-employment types and the different kinds of flexibility that might be available to mothers and fathers as a result. Further, the availability of informal flexibility for the mother or father did not appear to make a difference as to whether a couple shared the unpaid work or had mother-dominant divisions. This may be explained by the variable for informal flexibility which measured only the availability of such flexibility rather than the reality of how much it was used. In fact, among the interview participants there were a number of examples of informal flexibility and this seemed more widely used than any formal (i.e. contractual or formally agreed) flexible working agreement they had with their employer, particularly in terms of flexi-time and home working.

Also of note in the model results is the effect of job level. Table 5.5 indicates that couples in which fathers are in professional and managerial roles are less likely (log odds -0.51, OR 0.68, $p < 0.05$) to be in Class 1 than Class 5 and that couples in which mothers who are in professional and managerial roles are more likely (log odds, 0.47, OR 1.6, $p < 0.05$) to be in Class 1 than Class 5. The household level model suggests that it is the unequal combination of job levels within couples that may be relevant here; couples in which the father works at the highest level but not the mother are less likely to be in Class 1 than Class 5 and couples where both parents work in professional roles are no more or less likely to be in Class 1 over Class 5 (Appendix 5). There may be some correlation here between relative earnings and couple level job status with the marginal probabilities suggesting that the mother earning the same or more than the father may have a greater effect probability-wise than job level.

5.2.4 Other class comparisons

The above has so far focused on the comparisons between Class 1 with Class 5 which in the model were the noteworthy differences in terms of the effect of flexibility, the key variable. In terms of the other class comparisons, couples in which the mother earned the same or more than the father were more likely to be in Classes 2, 3 and 4 (the classes with some element of sharing) compared to Class 5 whereas there appeared to be no difference between Class 6 and 5. Further, non-traditional gender role attitudes of the mother appeared to be associated with couples' membership of Classes 3 and 4 (but not Classes 2 or 6) over the reference Class 5. Non-traditional gender role attitudes for fathers also predicted a couple's membership of Class 4 over Class 5 and in fact it was the combined non-traditional attitudes that appeared important here according to the household level model (Appendix 5).

Comparisons between Class 6 and Class 5 indicate that slightly older parents may be more likely to be in Class 6. The effect of part-time work was also significant in Class 6 versus Class 5 comparisons and suggest that couples in which either the father (Table 5.5, log odds 1.05, OR 2.85, $p < 0.05$) or both the mother and father worked part-time (Table 5.6, log odds 1.26, OR 3.53, $p < 0.05$) may be up to three times more likely to be in Class 6 than Class 5 (Class 6 being similar to Class 5 but with more extreme housework gaps). Although not statistically significant, the direction of the coefficients suggest that Class 6 households may be less likely to be in the highest household income groups than Class 5 and tend to have more, as well as younger, children which may explain some of the high amounts of housework being done by mothers in these households. Analysis of the job level variable for Class 6 versus Class 5 suggests that a higher proportion of fathers were working in routine and semi-routine occupations in Class 6 compared to Class 5 therefore one explanation for the effect of part-time here is that Class 6

couples are working in organisation-led part-time roles or are in involuntary part-time roles (i.e. they would prefer to be in full-time work).

5.3 Discussion

In summary, the quantitative findings indicate that 16% of UK dual-earner parent couples (in a sample selected based on parenting status in 2010-11) have shared divisions of the housework and childcare, 30% of couples have mother-dominant divisions with the remaining 54% showing some elements of sharing. There was little change over the period with divisions of unpaid work appearing quite static albeit with some trends towards more equal sharing when looking at the period 2010 to 2019.

The results suggest that couples in which the father used flexi-time and/or worked part-time were statistically significantly more likely to be in a class of couples that shared the housework and childcare than a class with mother-dominant divisions. Further, couples in which the mother worked part-time were more likely to be in a class with mother-dominant divisions of unpaid work than those working full-time. This is consistent with the recent literature although it is noted that few studies have investigated the link between work flexibility and divisions of unpaid work and those that have done so tended to focus on divisions of childcare. For example, Kim (2020) found that the use of flexi-time increased the childcare time of fathers generally in the US and more specifically that part-time work for fathers in dual-earner couples was associated with an increase in their childcare time. Walthery and Chung (2021) found that flexible working arrangements (which included flexi-time) increased the involvement of UK fathers in routine childcare (e.g. taking children to school). In the present study it is interesting that the quantitative findings do not suggest that the measures for flexibility were important when comparing couples who shared the childcare but not the housework (Class 2) with those who had mother-dominant divisions (Class 5). Neither father flexibility nor parental gender role attitudes appeared to have a significant effect, although the mother earning the same or more than the father did have an effect. This suggests there is something not included in the models that predicts this greater involvement in childcare but not housework and warrants further attention. Indeed, previous research has found different changes over time for housework when compared to childcare, i.e. an increased trend for father involvement in childcare among more educated fathers but that the housework gap was most resistant to change (Sullivan, 2013). Sullivan (2013) focused on the impact of education in her analysis however the education variable did not have a significant effect in the models other than the household model for Class 3. Class 2 couples appeared to have slightly older children compared to the other classes and in

fact there were fathers with older children in the interview sample who were involved in taking children to activities and helping with homework but were not involved in the housework (see Chapter 6 for more discussion).

The quantitative results suggest that home working for fathers or mothers was not associated with either shared or mother-dominant divisions of unpaid work. Indeed, past findings regarding home working have been mixed. Carlson et al (2021) found the home working of US fathers was linked to more time spent on childcare. However, Kurowska (2020) found Polish mothers were more likely to use home working (from time saved on commuting) to do more unpaid work than fathers (who were more likely to use it to enhance their leisure time). Parents working at the highest job levels may be more likely to use home working to work longer hours (Kossek and Lautsch, 2018). The measure of home working used in the quantitative phase of the present study may be limited in its ability to differentiate the type of home working used, referring only to “regularly” rather than how regularly which may vary between one day a week or less to “all the time” in the case of some of the interview participants. Future quantitative research may wish to consider a more nuanced construct of home working.

The qualitative results help explain how parents use part-time work, flexi-time and home working and the outcomes at the couple level in terms of divisions of unpaid work. They also offer more nuance. There was evidence from the interviews that both mothers and fathers used home working (going against the quantitative results) to organise their time around unpaid work, both childcare and housework, and were more involved as a result. How they used this flexibility, and how regularly, differed by couple and was linked to the working patterns of both parents and the various combinations of work flexibility available to them both.

Divisions of unpaid work were also linked to other factors. Indeed, the model results suggest that the effect of work flexibility on couples’ divisions of unpaid work is modest. Other variables in the models were associated with shared divisions of unpaid work and are in line with expectations and the previous UK research in this regard which has found that both economic and sociological factors work together to explain the domestic division of labour (Himmelweit and Sigala, 2004; Crompton, Brockmann and Lyonette, 2005; Kan, 2008a; Schober, 2013; van der Lippe, Treas and Norbutas, 2018). These include the mother earning the same or more than the father as well as non-traditional gender role attitudes of both parents which is consistent with some of the themes of the qualitative analysis. This is discussed in more detail in the following Chapter 6.

The research to date is varied and may focus on just one aspect of the domestic division of labour, such as the influence of the male partner's working hours on the likelihood of being involved in the childcare or the influence of male gender role attitudes on the housework. There are clear difficulties in taking all factors into account, limited by the challenges with modelling duality but also by the data available (e.g. higher levels of missing data for fathers). The method used in this section of the findings offers an alternative latent variable approach to modelling couples' divisions of unpaid work that includes both parents and a fuller measure of unpaid work that includes both housework and childcare. It also aimed to address missing data issues by maximising use of the unpaid work data available (although it is recognised that the higher level of missing survey data for fathers may still lead to bias). Future research may therefore wish to consider the use of latent class analysis using unpaid work measures from a different dataset to investigate whether the findings in this study are replicated. The limitations of this study due to the use of survey data relying on generalisations and weekly averaging of levels of unpaid work must also be recognised. Time use data may be better able to adequately capture fluctuating divisions of unpaid work between couples (Kan, 2008b) however Chapter 3 has also shown that such studies often have relatively small sample sizes of dual-earner couples and therefore the analytical potential may be limited.

These findings contribute to the growing body of knowledge regarding the relationship between work flexibility and couples' divisions of unpaid work. By separating couples into classes that share all aspects of the unpaid work from those who share only the childcare, interesting differences have emerged in terms of the relationships between work flexibility and the different classes as shown by the multinomial model results. However, the findings do not establish a causal link between working flexibly and shared divisions of unpaid work. It is possible that couples with non-traditional gender role attitudes desire to share the unpaid work and seek flexibility as a result (i.e. flexibility is a mediating factor which enables couples with non-traditional gender role attitudes to achieve their desired divisions) rather than flexibility leading to shared divisions of unpaid work. Future research may wish to explore alternative modelling strategies that investigate this. Regardless, both the quantitative and qualitative findings suggest that use of flexibility for parents is one of the factors that is important for dual-earner couples in managing their paid work and home responsibilities and that flexibility for fathers in particular may be associated with more shared divisions of childcare and housework.

In conclusion, while Chapter 4 found that fathers had changed very little in the period from 2010-2019 in the extent to which they work flexi-time, at home and part-time, the findings of this chapter suggest that for those fathers in dual-earner couples who do work in these ways

there may be positive outcomes (for gender equity) at the household level in enabling more shared divisions of both housework and childcare which were also connected to female participation in full-time work. Given the importance of this to helping close the UK's gender pay gap this adds to the evidence in support of initiatives which aim to increase the use of flexible working, particularly by fathers.

In terms of patterns of unpaid work, the quantitative results suggest there is little change over time in the way UK dual-earner couples divide their unpaid work. This remained rather static and may be due to the way the sample was selected; the parents in the sample were already parents in 2010-11 and past literature suggests that it is around the time the first child is born that parents experience the most noticeable changes to levels of unpaid work (Schober, 2013; Landivar, 2015). Indeed, the qualitative findings indicate that it was decisions within couples in terms of their paid work (which were made when their children were very young) that were associated with divisions of their unpaid work. The following chapter discusses this in more detail, focusing on decisions to reduce hours or change jobs at turning points in the interview participants' lives and providing further insights to help understand the relationship between these decisions, work flexibility and couples' divisions of unpaid work.

6 Further insights regarding the factors affecting the unpaid work of dual-earner parent couples

The previous chapter used both quantitative and qualitative data to show that dual-earner couples in which the father works flexibly may be more likely to have more equally-shared divisions of unpaid work as opposed to more mother-dominant divisions. More equal sharing of the unpaid work between couples is seen to be an important part of narrowing the UK's gender pay gap and therefore these findings underscore the importance of policy initiatives which aim to increase the use of flexible working, particularly by fathers.

While work flexibility appears important, chapter 5 also introduced other factors that were found to be important to couples' divisions of unpaid work. These included the paid work patterns of the mother, the relative earnings of the couple as well as both parents' gender role attitudes. These factors are complex and inter-related. This chapter delves deeper into these complex relationships, drawing further insights from the qualitative data and using the principles of life course research (White Riley, 1998). It focuses on both the experiences of the individual participants but also how their experiences are intertwined with those of their partner, thus drawing on the intersecting lives principle (White-Riley, 1998).

The first section of this chapter presents the different divisions of unpaid work found among the interview participants and their partners. It distinguishes those couples interpreted as having more mother-dominant divisions of unpaid work and those having more equally-shared/father-dominant divisions. In view of the recent literature regarding the "mental load" (Dean et al, 2021), both the physical and cognitive aspects of unpaid work are presented and discussed. This adds to the quantitative findings which were able to measure the physical aspects only.

The second section draws on the concepts of life course trajectories and turning points (Nitsche and Grunow, 2016). It links the participants' current divisions of unpaid work to decisions made to reduce paid working hours or change jobs at key points in their lives, illuminating the processes at play.

6.1 Visions of fridges and the family, "doing all the thinking"

Chapter 3 describes the approach to analysing the qualitative data and contains further details of the 19 participants who participated in the research interviews. As described in Chapter 3, the participants were grouped into two broad categories based on how they divided the unpaid work with their partner; those with mother-dominant divisions and those with more equally-shared/father-dominant divisions. These groupings are presented in Chapter 5 (Table 5.7). The

participant's own interpretation of the division was taken into account as well as evidence provided during the interview regarding unpaid work activities and the paid working patterns of both parents.

Ten of the participants were grouped as being in couples that tended towards more mother-dominant divisions of unpaid work. More often than not, these were couples in which the mother worked part-time or had previously worked part-time and the father worked full-time. Some divisions were clear such as Kim and her partner; Kim spent 12 hours a week in paid work and her partner worked full-time, often long hours up to 60 hours a week. She was very clear that she took the lead on all unpaid work which included childcare for their disabled son, housework and what she termed her "vision" for the family which may be classed as cognitive labour:

I'm probably the one that's managing the family to move forward... it's me who's got the vision to move us forward, to see where we'll go on holiday, X, Y and Z...you know, do this or we will... so M [partner] doesn't have any of that...pressure. He just goes and looks at the calendar and sees what's happening, you know, whereas it'll be me that'll be going, 'Right, we're doing this or doing that, we're doing that.'

Talia's view was also explicit in that she felt she did "everything". Talia and her partner both worked a similar number of full-time hours and currently earned similar amounts however she felt that their divisions of unpaid work had been decided after their child (12 at the time of interview) was born. Her maternity leave had been followed by periods of study (both undergraduate and postgraduate), part-time work and only recently full-time work. In her wider account it was clear that Talia was resentful of what she saw as an unfair division and referred to contested discussions with her partner in this regard. She described the divisions of unpaid work with her partner as follows:

I'm the one who knows if the child needs to get up at this time...get fed breakfast, school uniform ready for school, ironed during the weekend...money for lunch, homework done, make sure that he gets on time to school and you have to remember school meetings...and...everything, you know, whether friends' activities or meetings, whatever, it's always...your responsibility, it's 24/7, you're constantly like thinking...remember everything regarding our child and household and having to go shopping...my husband doesn't know...a shopping...a supermarket...well, he does know...he just don't go in there! Because I do everything (Talia).

This quote gives a sense of the physical element of unpaid work such as food preparation and housework but also the cognitive element such as the “remembering”. Phrases such as “constantly like thinking” and “responsibility” in this quote suggest she may be experiencing a mental load which was described by other female participants as “doing all the thinking” (Fay) and “feeling continually on call” (Violet).

Talia did however indicate that her partner was involved with their son such as taking him to activities and spending time together at weekends, which was also the case for the other mothers in this group. This may be reflective of recent research that fathers are more likely to be involved in the interactive than routine aspects of childcare (Walthery and Chung, 2021). It may also fit with some of the quantitative findings of the previous chapter that the childcare was more likely to be shared by dual-earner couples than the housework.

Indeed, both John and Daniel (who had continued to work full-time since having children while their partners changed to work reduced hours) were clear that their partners did all the housework. “I’m just lazy” (John) and “I know that irritates the hell out of her because I don’t do as much around the house as I should” (Daniel). Yet both of them indicated that they were involved with their teenage children which included taking them to evening sports activities but also providing advice and support, for example with school work. In John’s case he felt that he had an important role and was “taking the lead” in helping his son prepare for important exams:

It’s eighteen months of pushing L [son] to make sure he’s got the knowledge, because he’s clever, and...but he’s lazy...he has to do the work and the only way you can do the work with him is constantly...test him and by doing this he’ll get there. By not doing it, then I’m not investing in the kids to get them on, but at the end of the day when he goes to university I’m not going to be there to hold his hand, but I can hold his hand just now and make sure he’s got the knowledge...and the education...or help him to make sure he gets the knowledge, so he can pass his exams at this stage (John).

It was more difficult to establish the divisions of childcare among couples with older children who were becoming more independent; children who do not require care as such but still depend on parental support at certain times. Daniel felt however that his partner did more than him in this regard as she was more “emotionally invested” than him which he explained as:

I think she never stops thinking and worrying and trying to make things better...and whether that’s the children or...you know, our relationship or her relationships outside the family...I think physically and emotionally she’s on the go all the time (Daniel).

Again this links to the definition of mental load, the associated emotional labour which has no boundaries and the potential to lead to “endless rumination and worry” (Dean et al, 2021; p.2).

The remaining nine participants were grouped as being in couples that tended towards more equally-shared/father-dominant divisions of unpaid work. Mothers in these couples worked either full-time or four days a week, the majority of the fathers worked full-time with the exception of Elliot who worked 14 hours a week and Julia’s partner who worked 24 hours a week.

Rebecca worked four days a week and her partner full-time five days a week. She reflected on how they divided the unpaid work:

In terms of what we do physically around the house, in terms of washing and...cooking and things like that, we probably do 50:50, if not, he does a little bit more because he does all of the cooking...so things like that is probably 50:50, maybe he does a little bit more. But the thing I was thinking about was in terms of like her...health checks or if she’s outgrowing clothes or in the minute, so she’s in cloth nappies, at the minute her cloth nappies aren’t working for her...so it’s me that sorts out like the fact that we need something new. She needed...she’s just started walking, so she needed shoes, so it was me that had to go and...take her and get her measured for some shoes. Like the health checks from the health visitor...that always comes to me and phone calls from nursery, so she bumped her head yesterday, that always comes to me...so things like that I tend to do and he’s not really...you could ask him a question, he wouldn’t know the answer. But in terms of like cooking and cleaning and things like that, yeah, he does...yeah, probably half if not more...yeah. (Rebecca)

Again, this quote highlights the distinction between the physical tasks and those that are less visible such as the “sorting out” and being the first point of contact for nursery or health care. It was unclear how much of a load Rebecca felt in this regard and indeed this may not yet have been fully evident; she had only recently returned to work after maternity leave and her partner was actively trying to reduce his paid working hours to four days a week so he could spend more time with their daughter. As such, while their divisions of unpaid work were classed as broadly shared, it is noted that these were not yet settled.

In another example, the following quote from Declan highlights the cognitive unpaid work, the organisation and planning that also gives an underlying sense of urgency and stress to the juggling act between the couple:

“...mostly...it’s a bit like...what do they call it? Just in time...production, you know, we have our very...we have a very tight and strict regime...one of the worst jobs we have every week is what we call doing diaries which usually equates to an argument but it’s crucial that we do it because of the commitments and trying to balance it all...we’ve got to manage it, there’s nobody else going to manage it for us...we’ve got to do it ourselves...so...the weekly argument has to happen...as we term it and...you know, ‘What are you doing then? What are you doing then? What class are you going to? Swimming then...you’ve got the baby class...then you’ve got a meeting then, you’re in I [city] tonight and tomorrow...’ We have...we usually go about two months in advance...but we’ve got to...to make sure it’s all covered” (Declan).

Declan’s account was positive, illustrated by his laughing manner during the interview; even though he felt that combining work and family life was stressful he was hopeful that it wouldn’t always be like that and that things would change as his children got older. The way that Declan describes managing work and family needs implies a sense of a shared responsibility (introduced in Elliott’s case in Chapter 5) with his partner, a language of “we” versus “I” which was more evident in the other participants in this group than in those classed as having mother-dominant divisions of unpaid work.

Indeed, unpaid work was often divided up between the couples in this group and the language used by the fathers was around efficiency, plans and systems, phrases such as “a responsibility to be allocated” (Michael) were used. Participants had quite clear divisions of certain tasks which may explain the findings regarding Classes 3 and 4 in Chapter 5 (i.e. couples in which there was sharing/father dominant divisions of certain tasks but mother-dominant divisions of others):

Yeah...I can’t cook to save myself and there’s no point trying at the age of thirty-eight! So I’ll confess I’m atrocious at that and she’s very, very, very good at that, so that’s always fallen that way even before we had kids. But I’ll kind of do cleaning and tidying up and things, I’ll do the dishes afterwards and tidy up the living room from the kids, so we just try and balance things that way (Declan).

Yeah, well he will do the cooking, I...I do the dishes and cleaning, he does the cooking and he does ironing for himself, I don’t iron...I just iron kids’ clothes, uniforms (Haniyah).

If I cook, she won’t eat my food! So there’s no choice for her! She says my cooking’s bad, which I don’t think so...I think...it’s edible! But anyway.... so I do the washing, I do

ironing, I hang the washing out...we have...a cleaner comes in to help to do the clean, but occasionally I do the Hoover...I do the bins, make sure the bins are clear and put out and stuff like that...what else I can say domestic work?...I do all the shopping... I always have that vision of the fridge and say, yeah, now's the time to do that (Ian).

There were two participants in which divisions of unpaid work tended towards being more father-dominant than the other participants in this group. For the purposes of the categorisation of the unpaid work of couples in the sample, these two participants have been placed in the shared category (rather than create a separate father-dominant category) because of the active unpaid work role played by the mother in these couples which may reflect maternal gatekeeping practices found in the literature (Radcliffe and Cassell, 2015). However, as mentioned above, these are broad categories only, the main aim being to distinguish mother-dominant divisions of unpaid from non-mother-dominant divisions. Elliott's situation is discussed in chapter 5; while he indicated that he was the main carer for their youngest child, while his partner worked full-time she often able to work flexibly and from home and as a result she was still very much involved in home life which including continuing to breastfeed their youngest. Another participant, Julia, was working full-time, long hours in an inflexible job and her partner worked 24 hours a week. She reflected on the current division of unpaid work with her partner:

He does a lot more than me...he gets the kids ready for school in the morning, irons the shirts, makes the packed lunches, all that kind of thing...make sure they've got their bags ready and everything... He does a lot of the...shopping, food shopping...he does...a lot of the laundry, probably more than me and then maybe at the weekend I'll do some but he's been doing it certainly through the week. I do a lot more of the cleaning...I...we have a different kind of tolerance for cleanliness and I prefer it to be cleaner, I do the hoovering and dusting that's done, but he'll do washing up, loading the dishwasher...Most nights through the week, if I'm working a long day, I'll come home and he's either made the tea or thought about the tea, so he does...probably significantly more than any of the...the male partners of friends that I have...and sort of very straightforwardly, you know, without wanting a medal for it. He just recognises there's a lot of work involved in running a home. I probably do more of the kind of life admin of setting up appointments, making sure the kids have...you know, been to the dentist every six months, all those kinds of things. I probably do more buying birthday presents...you know, write Christmas cards, you know, there's definitely things that we do differently...he takes the bins out...I clean the loo...I mean...yeah...probably if I did an absolute split, I would say he does 70% of the domestic work and I do 30%. (Julia)

Julia's quote indicates that more of the physical unpaid work was done by her partner however she was still very much involved and it appears that she retains a responsibility around it, evidenced by her doing more laundry at the weekends for example. There was also a suggestion that she didn't feel quite "on top of things", she indicated that having more flexibility in her role, such as flexi-time or home working, would help her in this:

"I mean it sounds ridiculous that I would like to have more time off work to be able to do my housework, but ... have a morning where the kids are at school, you know, no-one else in the house and I could just get on top of this bit, straighten up the place a bit, you know, deal with that pile of bills that's sitting on the kitchen worktop. So I'm not particularly wanting flexi-time so I can have more me time and you know, go to the spa...I would just quite like a bit more time in my house, at home....I just feel like I'm not here to do things." (Julia)

This is consistent with the cognitive element of unpaid work leading to a mental load which may be more evident in mothers (Dean et al, 2021). In Julia's case this load appears to have manifested in a feeling of not being on top of things and possibly also an element of guilt which may be linked to previous divisions of unpaid work when she was part-time, working in more flexible jobs and doing more of the physical tasks. This can be contrasted with the following quote from Adam (who was classed as being in a couple with more mother-dominant divisions of unpaid work):

Yeah, she does find it frustrating when I don't know any of these things are going on. And I don't know if it's normal or abnormal or whatever, but I don't know they're happening because, you know, I just feel I've got...I've got so much else to think about that it's just not...it's...I feel that I...I trust that...she's doing that role, so I'm quite happy to trust she's doing that. I don't feel the need to know it, if you see. It's a bit like, you know, assuming like S [partner] is doing the washing this week or something like that, I don't have to know what's going on with the washing machine, so that's my kind of take on it. And I think she finds that...difficult in a sense, she wants to be aware of everything...and I think in an ideal world it'd be nice...but I...for whatever reason, I don't actually feel I'm capable of doing it. My brain doesn't seem to retain...this minutiae...unless I'm deliberately told I have to (Adam).

The literature suggests that the mental load may be more evident in mothers (Offer, 2014; Miller, 2018). While there were fathers in the sample who were involved in the cognitive as well as the physical component of the unpaid work, this did not appear to be framed as a load by them. In

this sample, the mental load was more evident in mothers that tended towards more mother-dominant divisions of the physical and cognitive work than those with shared divisions. There is therefore some suggestion that mothers may experience less of a mental load in couples in which there are more equally-shared divisions of the physical and cognitive unpaid work.

The above demonstrates how the participants were grouped in terms of the divisions of unpaid work with their partner, taking into account both the physical and cognitive unpaid labour. This categorisation is a broad indication only of participants' unpaid work divisions at the time of interview which aided the analysis and allowed different participants to be compared and contrasted. The next section links these groupings to decisions made to reduce paid working hours or change jobs at key points in the participants' lives.

6.2 Taking the hit

During the interviews a number of the participants reflected upon decisions made at certain key points in their lives which appeared to be linked to their current divisions of unpaid work. Financial considerations (e.g. how much the couple earned in comparison to each other at the time, future earnings potential, childcare costs) often dominated in these decisions and in a number of cases led to one parent making changes in their current job or finding a new role.

Maria worked full-time during the day and her partner worked in the evening. They had three children and their household income was at the lower end of the £40-60,000 bracket with Maria earning more than her partner. Maria worked during the day, leaving by 5pm each day so that she could meet her husband with the children nearby her work and do a "swap over" so that he could then go to work. In her view the unpaid work was shared between them with her partner caring for their youngest during the day, picking up the older children from school and cooking for them, for example, and her taking over in the evenings.

Both Maria and her partner had been working in full-time jobs (9-5) prior to the arrival of their first child. Their child had attended a private nursery for a short period of time after Maria had returned to work following the end of her maternity leave however she notes that "my child wasn't settled properly in her nursery...I was going in tears to work and most of my salary was just devoted to paying for nursery so I thought, 'No.'" Maria reflected on the decision for her partner to leave his civil servant role and find a new role working evening shifts (full-time hours) which allowed him to do the childcare during the day and Maria during the evenings thus saving on childcare costs:

Researcher: And can I ask...I know it's a little while ago now, but how did you decide that he would leave his job and move to try and get a night or an evening shift?

Maria: One of us had to do it...however, I had a master's degree, so the opportunities for me to get a better paid job were there for me rather than for him. So...he took the...the hit and I said...OK, I will work during the day and earn enough money and he will work in the evening night shifts and complement the salary...and to be able to afford, to be honest, all the expenses of running the house...At the time we were a very young couple...and...yeah...we had a mortgage and you know, just trying to find our feet I suppose.

For Maria and her partner, the decision for her partner to change jobs took into account her greater future earnings potential due to her higher education levels compared to her partner and the high childcare costs if they were to continue as they were. Maria uses the term “taking the hit” which was used by a number of other participants and can be linked to the pay cut she confirmed her partner took and may also be interpreted as a hit in terms of his career progression (she indicated that he would likely need to re-train if he wanted to return to a job similar to the one he had left). In her wider account Maria indicated that she could see the advantages of her partner being at home and her children not going to nursery until they were older (which links to the above quote about her first child not settling at nursery and the upset that Maria felt in this regard) however she was clear that the couple were not in a strong financial position and the overarching theme of her account was one of resentment regarding what she deemed a lack of governmental support with childcare costs.

This decision, made after their first child was born, informed Maria and her partner's divisions of unpaid work which stayed the same after future children were born. On the face of it this outcome appears to be positive, Maria remained in her full-time job and went on to have two further children with a partner who shares the childcare. However, Maria suggested that she had shied away from applying for more senior roles at work due to the extra time commitments required; this was linked to her having to finish work by 5pm each day so that her husband could begin his shift but also to her desire to have time to “be a mum” suggesting that she is conflicted with her breadwinner role and her mothering identity (Himmelweit and Sigala, 2004; Faircloth, 2020). Indeed, she indicated that she was considering reducing her hours to 4 days a week to spend one day at home with the baby. Managing paid work and all the childcare between themselves had taken its toll; in Maria's words they were “exhausted” and had limited time to

spend together as a couple and a family as her partner also regularly worked shifts at the weekends.

There were also times when, despite the mother earning more than her partner, gendered breadwinning and caregiving norms appeared to have taken precedence over financial considerations. Like Maria, Hilary and Katherine both indicated that they also had the greater earnings and earnings potential compared to their partners (at the time the decision was made) however in contrast to Maria they were the ones who had reduced their hours and “taken the hit”.

Katherine used to work full-time in a managerial role for a small business. She has three children and spoke about the difficulties she faced managing the additional needs and medical appointments for her youngest daughter alongside her paid work. She reflected on past struggles with finding the right childcare setting for her daughter as well as a series of conversations with her former employer after her daughter was born. At first her employer encouraged her to work flexibly on an informal basis: “Look, just take whatever you need, make up the hours, do the work whenever you can, don’t worry about being here 9 to 5 Monday to Friday”. After a time this was followed by an agreement to reduce her hours to 20 hours week. However, after a year of reduced hours, in her words, she was “finding it really difficult...making mistakes, I was forgetting when meetings were, I was overwhelmed, really overwhelmed....I just went to him one day and said, ‘It is getting too difficult, I don’t think I can do this much longer.’ Katherine felt that her former employer had been as flexible and supportive as he could but that the level of responsibility in her role was an additional challenge.

Katherine also referred to discussions at around the same time with her partner, who earned less than her, about him potentially leaving his job to look after their daughter. Katherine felt that stereotypical attitudes of family and friends had in part influenced the decision made by her partner not to leave his job as illustrated by the following quote:

So yeah, when we spoke to his mum and dad and said, ‘You know, we’re aware we’re going to have to make big changes. We’re looking at M [husband] giving up his job.’ His dad was horrified! He was like, ‘You’re the breadwinner, you’re the man...it’s not what you’re supposed to do. You know, you’re supposed to just be at work and K [the participant], she knows what she’s doing, she’s better at it.’ So there was a lot of...and nobody, not one person said, ‘Seems like a good idea.’ Not one person.... ..and his friends...when we first...were speaking about it in a social situation...they were calling him ‘house husband’ and they were saying, ‘Oh you can get the drinks,’ and ‘Go and get them

up while you're there...' and really...taking the mickey out of him for it...even just considering... And I think he was really quite like...put off by other people's reactions.

Katherine felt that she had no choice but to leave her managerial job which was "important in the company, I was a manager...I was getting paid a really good wage. I was...I loved my job". She described her current role which is 15 hours a week, term-time only job in administration as "way below my pay grade, way below my skill set...but the hours worked, it gave us just enough money to kind of keep afloat, pay the council tax and all that kind of stuff...with no luxuries, which was a hit we knew we were going to have to take and that was fine". While she recognised that the new role worked well for her family situation and she was a lot less stressed, she was resentful of having to give up a job she loved and felt she had worked hard for. In her words:

"I thought, 'Oh my god, I'm so bored. I've wasted all these years, you know, building myself up to be a manager to come down and...be pressing buttons on a computer!'"

Katherine has one of the lowest household incomes of the participants in the sample and her daughter is disabled which meant there were challenges of finding the right childcare as well as numerous medical appointments to attend. Indeed, high percentages of parents (particularly mothers) with disabled children have been found to leave work altogether (Equality and Human Rights Commission, 2017) which is supported by another participant's (Kim who left work for a number of years and had only recently returned) experience. Katherine's experience highlights the persistence of gendered attitudes towards caring which took precedence to financial considerations, appeared to be associated with mother-dominant divisions of unpaid work for the couple and reduced pay and career prospects for her.

In Hilary's situation (already introduced in chapter 5), the decision to reduce her hours was around how to relieve financial and emotional pressure for her and her three children which led to her changing her full-time hours in her administrative role to term-time hours at the time her youngest child started school:

Researcher: And what...can I ask what prompted the change [to reduced hours] ..?

Participant: Childcare costs were just...and my children weren't enjoying it. They were...getting up...I mean having to get them to breakfast club for eight o'clock, it was a private breakfast club because our school didn't run a breakfast club at that time...so we were having to get up early, so I could get to breakfast club for 7am, get to work for 8am, but it was just too early, too much...it just wasn't manageable and the after school club...financially and emotionally I think...everybody was just...it was too much. So I've

got a bit more of a work life balance now...I can take the kids to school and pick them up...One of the points, I don't know, is worth highlighting is the fact that...I'm probably the highest earner...between myself and my partner, but...being a man, he kind of decides that...it's his job to go out and work and it's...a mum's job to take kids to school and things like that, so...it's not always...it's just the way it's worked out, it should have been the other way around but yeah...that's the way it's worked out.

Hilary's phrase "it's just the way it's worked out, it should have been the other way around" shows recognition that if a rational, logical approach to decision-making was followed it may have been her who took on the breadwinner role. However, her partner's stance appears to instead have dominated here (in line with Faircloth's (2020) findings that breadwinning remains central to men's work). In her overall account it was noticeable that any adjustments to relieve pressure between work and family were her responsibility. It is noticeable in the above quote that she used the word "I" a lot and any interaction with her partner in terms of co-ordination of work and family is very limited. In her words she did "everything".

Katherine and Hilary's experiences highlight the gendered attitudes towards caring and paid work which have been found in the sociological literature and which have been found to surpass more rational, logical decision-making found in the economic literature (as discussed in Chapter 2). Both Katherine and Hilary were keen to point out that they would like to be spending more time in paid work and expressed feelings of resentment towards the situation they were in. Their situations may reflect the dynamics of power in their relationships, the constraints of gender role attitudes but also constraints that limited the choices available to them such as difficulties in outsourcing childcare or a lack of family nearby to help. Their partners were in full-time low-skilled jobs which had little scope for flexibility and did not appear to be willing or able to make changes to their paid work to accommodate family life.

In other participants' cases (Kim, Fay, Sophia, Talia, Daniel, John and Adam), decisions at key points in their lives appeared to have led to mother-dominant divisions of unpaid work; fathers earned more than the mother and had continued to work full-time following the birth of their first child with mothers changing to part-time, a division of unpaid work that remained some years later. The changes to reduced hours by mothers were not given a great deal of emphasis by the participants; the points appeared to be understood as a logical or natural progression from one stage of their lives to another, for some even accompanied by a sense of inevitability like Kim ("I mean obviously I earned substantially less than him, so that was the only way it was always going to work"). This was often framed in terms of a financially-motivated decision

however there was also reference to a mother's role and "what was expected" of her, how "she never would have wanted to go back full-time" (Adam).

Over time some of these mothers (Fay, Talia) had gradually increased their hours in paid work as their children got older, going from part-time to full-time. However, mother-dominant divisions of the unpaid work appeared to persist. It is possible that a cumulative disadvantage from working part-time over a number of years existed here meaning it was harder for mothers to match the earnings (and possibly the bargaining) power of their partners who had been full-time throughout.

6.3 Time out of paid work for fathers

There were however exceptions to these static divisions of unpaid work. In both Julia and Violet's cases their partners had made adjustments which had changed mother-dominant divisions of unpaid work to shared or father-dominant for a period of time. For Violet (who had the lowest household income of the sample) this was linked to whether it was her or her partner who had the opportunity to get the best paid job while the other parent focused on being the main carer for their four children and combined this with paid work wherever possible. For Julia (who had one of the highest household incomes of the sample) this was linked to a commitment with her partner to equal parenting, preferences around childcare and her inflexible job. She and her partner earned similar amounts, their children were 12 and 14 at the time of interview and in the last two years Julia had changed to a new job that was full-time (with no home working or flexi-time) and involved long hours, often evenings and weekends. Julia reflected on discussions with her partner when deciding whether to apply for her current role. She was concerned about the effect of increasing her paid hours on the children (since having children she had worked in a variety of flexible, reduced hour roles). Her partner reduced his full-time hours to 24 hours a week (in the same role) to be able to spend more time at home with their children:

He said 'Go for it, you know...you've adjusted around my jobs ...it's your turn now, I'll reduce my hours.'" (Julia)

Julia indicated that her partner's (large public sector) employer had been very supportive of various requests he had made to change his working hours since having children; he had been able to use his skills in different areas and find roles that matched his needs. In fact he had previously worked part-time, for example, when their children were very young both he and Julia had worked 2.5 days per week so they were able to share the childcare between them. Julia reflected on this earlier period which appeared to be associated with the couple's gender role

attitudes and beliefs about equal parenting (“we took a very conscious decision within our marriage that we would try and have a very equal marriage...and that the childcare and domestic work, that we would share it”) as well as preferences about nursery (“I had the children when he was at work and vice versa because we didn’t want them to go to any kind of nursery or...formal childcare setting until they were a little bit older”).

This couple had therefore gone through periods where the unpaid work had been shared, those where it had been mother-dominant, and (currently) those in which it tended towards being father dominant. This is an example in which the father had made changes in his paid work to adapt to the mother’s paid work. This was also evident in Maria and Violet’s cases but lacking in the other participants’ accounts where mother-dominant divisions of unpaid work often followed decisions made at certain key points and remained static over time.

Indeed, there were other participants whose accounts indicated that the father had made changes by taking time out of paid work. These couples tended to work in professional and managerial roles and be among the higher household income levels of the sample. Decisions made at key points in the lives of a number of these participants had led to fathers taking shared parental leave (Elliott, Rebecca, Michael) or time out of paid work (Ian, Christina) after the birth of a child.

Ian and his partner both worked full-time in professional and managerial roles earning similar amounts, they had 2 children aged 6 and 4 months (Ian’s partner was currently on maternity leave). Ian reflected on their situation just before the birth of their first child, a time at which he put himself forward for voluntary redundancy, which had been approved. This decision appeared to be associated with Ian’s preference to be at home more; he indicated he was keen to spend more time at home after his son was born and knew that his commute to work (in another city) would impact this. The decision to take redundancy also appeared to centre on whose career would take precedence; while it was less about breadwinner considerations (Ian and his partner earned similar amounts) it was clear that his partner’s age and future earnings potential (“she’s younger than me...she’s...she’s got good career. ...she’s capable, you know, she wants to do it, why not? Let her have a shot”) factored in the decision. Ian’s partner was also at a pivotal point in her career and Ian indicated she was concerned about taking a long maternity leave. While Ian referred to having to manage their finances carefully during this time the couple did not appear to struggle financially; Ian gave the impression that after he took voluntary redundancy, he could have found a job relatively easily if he had wanted. Ian became the main

carer for their son after his partner returned to work after her maternity leave as illustrated by the following quote:

...we sat and worked out what's best. So I took the time out, eighteen months, to help out...so our kind of...learn from that...you know, it's...nappy-changing...I think I've done more nappies...maybe five times more than her! ...because she didn't take a lot of maternity leave, she only took about...three months I think...Basically I did all the nappy changes, I took him to get his injections...which I didn't like, but I have to be there, I have to hold him...and somebody's going to make him cry...what else? Just basically do all the things that...you know...it's...I think I enjoyed it...but at the time it's quite daunting...when he starts kicking his nappy off, I say, 'Oh my god! I wish there was someone here to help me!' (Ian)

After these 18 months their son went to nursery and Ian found a new role working full-time in another organisation. He continued to see himself as the main carer for his son and recognised that with this came the need to be able to leave work at a certain time, referring to his new role as “taking a step back”:

I used to manage people, now I'm one level down, to take a career...step back...but it's fine. I accept that because I know I need the flexibility. If I need to take the same role I was doing before, I probably like S [Ian's partner] cannot get away because when issue comes, you can't get out of work, you need to be at work, you need to manage your team, make sure you get things done. (Ian)

This links to the theme of “taking the hit” introduced earlier however, in contrast to the participants mentioned above, particularly Katherine and Maria's partner, the difference between Ian's old and new role is much less stark. Indeed, his new job was a professional role in the same sector, was full-time and well-paid, yet with fewer managerial responsibilities.

With the exception of Elliott, the fathers who had taken time out had returned to working full-time hours (with elements of flexi-time and homeworking) in the same or similar roles. While financial considerations were taken into account in decisions made, they were given less prominence than those in the earlier examples; parental preferences and the narrative of “being there” (Harden, 2012) for the children also featured. Michael and his partner both worked full-time with similar levels of earnings, they had two children aged 5 and 2. Michael had taken 3.5 months (enhanced by his employer) shared parental leave after their second child was born (it was not available for his first child). Michael's reflection on this decision highlights a desire for

him to be involved and for the couple to share childcare responsibilities as well as his wife's desire to return to work:

Researcher: And can I ask, how you decided to share your parental leave or you know, what kind of conversations went into that decision?

Michael: So like I said before...we always thought of childcare as something shared, basically it's the pool of responsibilities and that, you know, have to be performed and then we just took equal share or...or just made it all work between ourselves...without really kind of...equal sharing of responsibilities. So there are some things that my wife had to do that I couldn't, so for example, early childcare...breastfeeding...you know, that was...so that was definitely that she had to do, but later...you know, it became apparent that I could help so once we...discovered...once we decided that's an option, we looked for the ways of doing this. And...if it's...if it's sensible to do...and my wife...did want to...go back to work...so between ourselves we decided that that's...that's possible and that's a good option...and also of course, the economic argument of...having that pay" (Michael).

Michael also mentions financial considerations (the "economic argument"); he received full-pay while on leave when in fact his wife would not have done so had she taken the final three months of her maternity leave. However, he did indicate that if shared parental leave had been available to him after the birth of his first child he might not have taken it because "my wife was quite keen on taking the full time...even though the pay dwindled and the final months of the maternity leave were not paid". This suggests that maximising finances were not of paramount importance to the couple which is linked to Ian's account and the freer choice which may be available to those in higher occupational and higher earning groups. Discussions around parental preferences regarding the age at which children should start to attend nursery, the type of school, the desire for the involvement of children in extra-curricular activities and generally wanting "the best for your kids" (Ian) pointed to the trend for intensive parenting strategies (Sullivan, 2013). This was in fact was a theme across all the participants, albeit those with the means to do so may be better able to realise these preferences (McRae, 2003).

In contrast, Haniyah's partner had not taken time out of paid work after the couple had their first child. She was currently working full-time and studying towards professional qualifications. She had broadly similar earnings to her partner who was also full-time and the couple had household income in the £40-60,000 per year bracket. Haniyah's partner worked set shift patterns involving day and evening work as well as working on Saturdays and had not taken time

out of paid work (other than two weeks unpaid paternity leave) since the couple had their first child who was three. In Haniyah's view, the childcare was broadly shared (her partner could drop off their child at nursery and she picked her up) although she tended to do more housework at weekends when her partner was at work. Haniyah expressed frustration with her partner's shift patterns which affected their time as a family in the evenings and at weekends. However, she did not see a way out of this ("it's hard, like he's been in the same job for so many years and now he feels like he's at an age that is hard to change...his profession, so it's just like...the same circle you're...going in."). She indicated that while she was currently working full-time, this was ideally only until she qualified in her role. After this she planned to apply for term-time only working, to fit with the hours her daughter would be at primary school. This suggested there may be future mother-dominant divisions of unpaid work for the couple, which appeared to be associated with an apparent lack of options for her partner to adjust his paid working hours, but also with a conflict between Haniyah's desire to progress her career and the resulting need for her daughter to be in nursery full-time.

This example raises the question of whether over time the shared approach to unpaid work of some of the participants who had younger children will be maintained. The quantitative findings of chapter 5 suggest that divisions of unpaid work remain relatively static and the literature suggests that early father involvement in childcare can positively affect their future involvement (Bünning, 2015; Banister and Kerrane, 2022). Indeed, Rebecca's partner, had recently tried (albeit unsuccessfully) to reduce his full-time hours to part-time with his current employer. At the time of interview, he was searching for new role with part-time hours so he could spend more time with their one year old daughter. However, the above findings also suggest a conflict for women between full-time paid work and their mothering identity and this may become more evident in couples who go on to have further children, potentially leading to more mother-dominant divisions of unpaid work. Ian and his partner had recently had a second child and his wife was on maternity leave at the time of the interview; he did not have plans to take shared parental leave, saying that his wife was keen to breastfeed exclusively for six months and had found it challenging to work and express milk with their first child. This highlights some of the current imperfections with shared parental leave and its lack of a ring-fenced right for fathers meaning it relies on the mother giving up some of her maternity leave (Atkinson, 2017).

6.4 Discussion

In summary, the findings suggest that understanding past decisions regarding changes to paid work made at key turning points (often after the birth of a child or when the children were very

young) in the lives of dual-earner couples is an important part of understanding their current divisions of unpaid work. Financial considerations (including the earnings and future earnings of both parents together with childcare costs) played a key part in these decisions which intertwined with the attitudes, beliefs and preferences of both parents. Mothers who were equal or higher earners compared to their partner appeared more likely to maintain their working hours and occupational status which was connected to more shared or father-dominant divisions of unpaid work (thus supporting the findings of Chapter 5). However there were examples of where the traditional gender role attitudes of one parent appeared to take precedence over financial considerations and were connected to more mother-dominant divisions of unpaid work (again supporting the findings of Chapter 5).

In couples with more shared divisions of unpaid work it appeared to be the father who had made changes in his paid work, or both parents, whereas in couples with more mother-dominant divisions of work it appeared to be only the mother who had made changes to her paid work. Changes to paid work involved taking time out of paid work after the birth of child, a reduction in hours and working flexibly in other ways such as the use of flexi-time. As such the ability of both parents to take time out of paid work and to use work flexibility appears to be a mechanism which may enable more shared divisions of unpaid work. This may reduce the need for parents to leave jobs to find a better fit around family which may be linked to reduced pay and responsibility.

More equally-shared divisions of unpaid work appear connected to time taken out of paid work by a number of fathers in the sample after the birth of a child. This is consistent with previous literature that early father involvement in childcare can positively affect their future involvement (Bunning, 2015), going against Faircloth's (2020) conclusion that "breadwinning remains central to men's work". One possible explanation for the differences between participants' experiences in the sample may be the change in policy context. While Additional Paternity Leave was introduced in 2011, the equality discourse and public debate around fathers as carers did not gain momentum until Shared Parental Leave was introduced in 2015 and the gender pay gap reporting regulations were announced and introduced in 2017. Couples in the sample (who tended to be those couples, but not all, who had mother-dominant divisions of unpaid work) who had children before these changes had more limited options in terms of which parent took leave when a child was born. It was not possible to test these results using the survey data in this study. However, future research comparing divisions of unpaid work in dual-earner couples in which fathers have and have not taken parental leave will be useful.

Time out of paid work for the father was however more evident in couples in the sample with higher household income groups but not couples in the lower household income brackets. This is of course a very small qualitative sample however these findings are consistent with those regarding APL previously and now SPL which has very low take ups concentrated among higher-earning parents in the upper occupational classes (Howlett, 2020; Banister and Kerrane, 2022).

The findings also suggest that the mental load may be more evident in mothers than fathers which is in line with the previous literature (Offer, 2014; Miller, 2018) with some suggestion that more shared divisions of the unpaid work within couples may alleviate the mental load. Future research may wish to investigate this further to understand more about the mental load in both mothers and fathers with a focus on exploring ways to alleviate it. Indeed, Dean et al (2021) argue for the construction of a robust and valid measure which quantifies the mental load which is included as standard in family, work and health surveys and they believe is critical to reducing gender inequality.

Analysis of the interview data has led to the development of further insights into the experiences of mothers and fathers which was not possible using the survey data. However, the sample is small and not representative of UK dual-earner couples. While this was not the intention it must be recognised that mothers were over-represented in the sample and the fathers who participated were those in the professional and managerial groups. In addition, self-selection bias is likely to be present in the sample. For example, those with more flexible ways of working likely found it easier to find time to participate in a research interview. Further, those who felt strongly about the research topic, for example, those with non-normative divisions of unpaid work that they were keen to share, may have been more likely to come forward.

In conclusion, the financial situation of the couple appeared to play a key part in past decisions regarding changes to paid work made at key turning points which operated alongside the attitudes, beliefs and preferences of both parents. Changes to paid work involved taking time out of paid work after the birth of child, a reduction in hours and working flexibly in other ways such as the use of flexi-time. The ability of both parents to take time out of paid work and to use work flexibility appears to be a mechanism which may enable more shared divisions of unpaid work. This underlines the importance of both flexible working and parental leave policies however, the use of the current parental leave regulations and certain types of work flexibility (as shown in Chapter 4) is concentrated among those in higher level occupations and higher household income groups.

This chapter presented the findings regarding decisions to make changes to paid work at turning points in the lives of dual-earner parents to help understand the relationship between these decisions, work flexibility and couples' divisions of unpaid work. This builds on the findings of the previous chapters by highlighting the personal experiences of couples. This provides context and nuance which adds to the understanding of how different factors influence outcomes at both the individual and couple level which is an important part of ensuring that policy initiatives aimed at helping parents combine paid and unpaid work are effective. The following, final, chapter draws these findings together alongside those presented in Chapters 4 and 5. It identifies the contributions of the study and highlights the implications for policy and recommendations in this regard. Further consideration is also given to the impact of the Covid-19 pandemic and recent research in this area.

7 Discussion and conclusion

The previous chapters 4, 5 and 6 presented the findings of this study. Chapter 4 presented the results from the first phase of this study, building a picture of the use of work flexibility in the UK, looking at both the individual and work characteristics of those who use it as well as the change over the period 2010-19. Chapters 5 and 6 presented the results from the second phase of this study. Chapter 5 explored the relationship between work flexibility and the more equally-shared divisions of unpaid work within dual-earner mixed-sex couples with dependent children. Chapter 6 delved deeper into this relationship and the impact of other factors, drawing further insights from the qualitative data regarding decisions of parents to make changes to paid work at turning points in their lives. This helped further understand the relationship between these decisions, work flexibility and couples' divisions of unpaid work.

This chapter begins with a summary of the findings from the previous three chapters, synthesises them with the recent literature and draws out the specific contributions of this study. Further consideration is also given to the impact of the Covid-19 pandemic which has particular pertinence for work flexibility and the unpaid work of couples. The empirical, methodological and theoretical contributions of the study are summarised and implications for policy and recommendations are presented and discussed. Finally, the limitations of this study and opportunities for future research are presented.

7.1 Phase one, summary of results and discussion

The first phase of this study aimed to explore changes in the use of flexible working arrangements (FWA) in the UK over the period 2010-19. It considered how fathers' use of flexible working changed in comparison to mothers over the period 2010-19 together with what evidence exists to suggest that the use of flexible working is becoming more widespread in the UK. This focus was informed by the changes to the statutory right to request flexible working which was extended to all employees with over 6 months service in June 2014; flexibility for all is one part of the UK's policy strategy to close the persisting gender pay gap. The research focus was also informed by a scarcity of longitudinal research in this area together with a growing interest in the work-family literature regarding the importance of considering both mothers and fathers; to accomplish gender equality in work and family roles it is important that both mothers and fathers are able to make work changes so that they can be involved in family life.

7.1.1 Increases in the use of worker-led flexibility mainly due to increases in home working

The results from this phase of the study, which used representative UK data from the Understanding Society household panel survey, are presented in Chapter 4. In summary, while

there appears to have been a small increase in the use of worker-led flexible working (i.e. regular home working, flexi-time, compressed hours, job shares and term-time work) over the period 2010 to 2019 this increase appears to be mainly due to increases in the use of home working among employees working at the highest job levels. The findings suggest that the use of regular home working among UK employees increased from 5.5% in 2010 to 9.8% in 2019. Further, the use of home working and flexi-time between the lowest and highest job classes appears to have widened over the period 2010-19. There was a small increase in the use of other types of flexible working (i.e. those that are less clearly worker-led which include part-time, annualised hours, zero hours, on-call working and other types) over the period 2010-19. These are used predominantly by women and those working at the lowest jobs levels with little sign of change over the period of the study.

7.1.2 UK fathers have changed very little in comparison to UK mothers

The findings distinguished parents' use of home working and flexi-time (FWA which may be used alongside full-time work) from the use of part-time, job shares and term-time work (FWA associated with reduced hours work). The use of home working and flexi-time by fathers and mothers was broadly similar and did not appear to change over the period 2010 to 2019 after controlling for various individual and employer characteristics. However, stark differences between fathers and mothers were found regarding the use of part-time, term-time only and job shares; these difference were present in 2010-11 and over the period to 2019 there appeared to be little sign of change. The findings suggest that the probability of mothers using reduced hours flexibility in 2018-2019 was 53% whereas for fathers it was just 9%.

The findings regarding the increase in the use of home working and a lack of increase in other forms of worker-led flexible working are in line with other recent quantitative research. The CIPD (2019) looked at the period from 2007 to 2017 using data from the Labour Force Survey, another UK large scale survey designed to be representative of the UK. They found little change in take-up of flexible working in the UK in the 10 years to 2017 with the exception of zero hours working and home working in which they found a "slow but steady increase" (CIPD, 2019, p.11). While the CIPD (2019) also presented cross-sectional differences in the use of FWA by men and women and occupational groups their study did not highlight differences between mothers and fathers or examine changes over time when comparing different groups. This study's longitudinal approach therefore extends the CIPD's (2019) study by using different data to investigate the use of FWA in the UK and how this use has changed over time when comparing fathers and mothers and other groups such as employees in different job classes and sectors. Specifically the findings highlight a lack of any apparent change in the use of reduced

hours flexibility by UK fathers compared to mothers over the period from 2010-2019.

Furthermore, the gap in the use of home working and flexi-time between the highest and lowest job classes may have widened over the period 2010-19 which has particular relevance in the light of the Covid-19 pandemic (discussed further below).

These findings build on those of the previous qualitative and cross-sectional quantitative research. The results of this phase of the study are perhaps unsurprising given the previous literature in this regard. Gendered perceptions regarding the availability and use of flexible working arrangements (FWA) have been highlighted in numerous studies since the right to request flexible working for parents was first introduced in 2002 (Atkinson and Hall, 2009; Tipping and Perry, 2012; Gatrell *et al.*, 2014; Cook *et al.*, 2021; Faircloth, 2021; Kelland, Lewis and Fisher, 2022). A dichotomy of FWA may exist regarding FWA which can be used alongside full-time hours or alongside reduced hours which are seen to be more operationally challenging (Michielsens, Bingham and Clarke, 2013). Indeed, cross-sectional analysis using Understanding Society data from 2014-15 found that UK fathers were four times more likely than mothers to say that reduced hours working was not available at their workplace after controlling for occupational and sectoral differences whereas the availability of home working and flexi-time was reported to be broadly similar by mothers and fathers (Cook *et al.*, 2021). This is in line with the findings of this study and helps explain the stark differences in the use of reduced hours flexibility between fathers and mothers.

The barriers to availability and use of FWA in different job roles and sectors are also well-documented in the qualitative literature with high-trust high autonomy roles being more suited to flexi-time and remote working (Hyman, Scholarios and Baldry, 2005; Blake-Beard *et al.*, 2010; Ba', 2014). Following this study however we also know that these patterns are reflected in representative UK data and most importantly that there appears to have been very little change over the period 2010-19 to suggest that the use of FWA has become more widespread in the UK. This is despite the policy initiatives over this period, namely the extension of the right to request flexible working to all qualifying employees in 2014 and the shared parental leave regulation in 2015 aimed at encouraging fathers as well as mothers to take time out after the birth of a child.

7.2 Phase two, summary of results and discussion

The second phase of this study aimed to explore the divisions of unpaid work (i.e. housework and childcare) of dual-earner parent couples in the UK and the role of work flexibility and other factors in this regard. It considered what patterns can be identified in how these couples divide

their unpaid work and to what extent the use of different types of work flexibility for both parents account for these divisions. This focus was informed by the UK's policy focus on increasing the unpaid work of fathers as part of closing the UK's gender pay gap, the theoretical potential of work flexibility to enable both mothers and fathers to reconcile their paid and unpaid work responsibilities more effectively and the recent empirical research suggesting that the work flexibility of fathers may increase the time they spend on childcare. The results from the analysis of representative UK data from the Understanding Society household panel survey (covering the period 2010-19) and semi-structured interview data (collected during the period April to October 2019) are presented in Chapters 5 and 6.

In summary, the quantitative findings suggest that 16% of the sample of UK dual-earner parent couples have shared divisions of both housework and childcare, 30% of couples have mother-dominant divisions of the housework and childcare with the remaining couples showing elements of both shared and mother-dominant divisions (e.g. 14% appeared to share the childcare but had mother-dominant divisions of the housework). Further, UK dual-earner parent couples in which the father works part-time and/or uses flexi-time (but not those in which the father regularly work at home) may be more likely to have more equally-shared divisions of the housework and childcare as opposed to mother-dominant divisions than couples in which the father does not work in these ways. Other factors were also associated with more equally-shared divisions of unpaid work which include the mother earning the same or more than the father, the mother working full-time and the non-traditional gender role attitudes of both parents.

The qualitative findings helped explain the relationships uncovered by the quantitative findings, i.e. how dual-earner parents use part-time work, flexi-time and home working and how this flexibility worked alongside other factors to affect divisions of unpaid work. In addition, focusing on work-life changes made by the sample of dual-earner couples since having their first child, the qualitative findings suggest that the financial situation of the couple appeared to play a key part in past decisions regarding work-life changes which intertwined with the attitudes, beliefs and preferences of both parents and led to changes in paid work for one or both parents. There was a sense of the need to prioritise one parent's paid work over the other parent's; mothers who were equal or higher earners compared to their partner appeared more likely to maintain their working hours and occupational status which was connected to more equally-shared or father-dominant divisions of unpaid work (in line with the quantitative findings). However there were examples in which the traditional gender role attitudes of one parent

appeared to take precedence over financial considerations and were connected to more mother-dominant divisions of unpaid work (again supporting the quantitative findings).

Changes to paid work involved taking time out of paid work after the birth of child, a reduction in hours and working flexibly in other ways such as the use of flexi-time. In couples with more shared divisions of unpaid work it appeared to be the father who had made changes in his paid work, or both parents, whereas in couples with more mother-dominant divisions of work it appeared to be only the mother who had made changes to her paid work. The qualitative findings also suggest that dual-earner couples who share the physical aspects of the unpaid work may also share the cognitive aspects, i.e. more shared divisions of the unpaid work within couples may alleviate the mental load (which may be more likely in mothers).

7.2.1 Fathers' use of flexi-time/part-time may be associated with more equally-shared divisions

The above quantitative finding that the flexi-time and/or part-time work of the father may be related to more equally-shared divisions of housework and childcare is in line with economic theories of efficiency, rationality and time availability regarding divisions of unpaid work (Becker, 1965; Greenstein, 1996) as well as boundary management theories regarding work flexibility (Clark, 2000; Piszczek and Berg, 2014). That is, a parent is able to organise their paid work hours/reduce these hours to restructure their paid work to accommodate family responsibilities facilitating better work-life fit (Jeffrey Hill *et al.*, 2008) and potentially leading to more time spent on unpaid work. Recent quantitative research has focused on the links between fathers' work flexibility and childcare time, also finding empirical support for these theories. For example, Kim (2020) found that the use of flexi-time increased the childcare time of fathers in the US and more specifically that fathers in dual-earner couples who worked part-time increased their childcare time. Further, Walthery and Chung (2021) found that flexible working arrangements (which included flexi-time) increased the involvement of UK fathers in routine childcare (e.g. taking children to school). These studies looked at the absolute effect on fathers' childcare time which differs to the approach taken in this study which considers the effect on divisions of unpaid work within the couple. As argued in Chapter 2, this is important because while worker-led flexibility for fathers may increase their unpaid work time, this may be inconsequential (for gender equality) if the gap within a couple remains wide and the mother continues to do much more. The quantitative findings of this part of the study therefore build on previous research by suggesting that fathers' flexi-time and part-time work may be related to more shared divisions of both housework and childcare within a couple (as well as the absolute increases on fathers' childcare time found by prior research).

There are few prior studies with which to compare the findings regarding fathers' part-time work/flexi-time and divisions of housework although Carlson, Petts and Pepin (2021) looked at the relationship between home working and housework (see further below). Divisions of housework within parent couples are seen as, and have been found to be, more resistant to sharing than divisions of childcare (Sullivan, 2013; Almqvist and Duvander, 2014; Lyonette and Crompton, 2015) and indeed the findings of Chapter 5 suggest that only 16% of UK dual-earner couples share both housework and childcare whereas closer to 30% of couples share the childcare. There are few studies that have grouped childcare and housework sharing patterns within couples in the same way as this study therefore further work is needed to see if similar patterns are replicated using different data. However, the percentages regarding childcare divisions found in this study are in line with Walthery and Chung (2021) who found, using UK representative time use data from 2014-15, that 32% of UK fathers in couples mainly shared (in their study sharing was classed as involvement with 40% or more of the childcare) the childcare with their partner which is similar to the percentage in this study.

Dual-earner parent couples spend a substantial part of their unpaid work time on housework as well as childcare as shown in the time use data presented in Chapter 3 therefore it is argued that in any study of unpaid work both must be considered. By considering the combined division of the housework and childcare of couples the quantitative findings of this study have led to an interesting distinction in the findings regarding work flexibility between parents who share both the housework and childcare and those who share only the childcare but have mother-dominant divisions of housework. Indeed, the findings regarding the link between fathers' use of flexi-time and part-time work are only in relation to couples who share both the housework and childcare rather than those who share only the childcare who appear to be substantively different from those who share both childcare and housework. Neither father work flexibility nor non-traditional attitudes were associated with this group. One possible explanation for this difference is changes in the nature and meaning of childcare such as interactive childcare and intensive parenting strategies (Sullivan, 2013) that are not linked to gender role attitudes or variables connected with paid work; there was some evidence of this in the qualitative findings in fathers with older children although it is not considered in detail in this study and as such is something that future research may wish to explore.

7.2.2 Home working fathers may be helpers not sharers

Not all types of work flexibility may be linked to more shared divisions of unpaid work; the quantitative findings of this study suggest that fathers' home working is not associated with shared divisions of unpaid work. Past quantitative findings regarding home working have been

mixed and the effect may depend on context but also differences in the way in which home working is measured and unpaid work is operationalised. Kim (2020) found that US fathers with regular home working arrangements (i.e. not just taking work home) did not increase their enriched childcare time. In contrast, Carlson, Petts and Pepin (2021) found in US dual-earner parent couples, fathers' use of home working at least one day a week was associated with more time spent on routine childcare than fathers who did not work from home and this time increased as the number of days spent home working also increased (homeworking did not however have the same effect on housework and was only associated with more time spent on housework by the father if the mother also worked full-time). In comparative research, Kurowska (2020) found home working fathers in Sweden spent more time on housework and routine childcare than those fathers who did not work at home but that this effect was not present for home working fathers in Poland which they suggest is explained by the less egalitarian context of Poland (i.e. where fathers are not expected to do housework and childcare) compared to Sweden.

In this current study, the qualitative findings found evidence of home working fathers who actively organised their paid work around their unpaid work, particularly the childcare, and who appeared to be “co-parents, capable of all aspects of childcare rather than just helpers” (Rehel, 2014; p.124) in couples with shared divisions of unpaid work. There were however other fathers who used their home working as way to focus on their paid work and extend their paid work hours (Kossek and Lautsch, 2018) but made themselves available in a helping capacity for childcare and housework when needed and asked, in line with the mother-dominant divisions of unpaid work (Rehel, 2014). While such use of home working may be in line with boundary management theories in that it helped the couple facilitate a better work-life fit for the family/alleviate work-life conflict it was not enough to result in shared divisions of unpaid work given the working patterns of the mother who was often working part-time. Indeed, a UK qualitative study of home working fathers found that in all cases the mother or some other source of care remained primary, concluding that “it is clear that home working is not producing equality in parents’ child rearing responsibilities and roles” (Halford, 2006, p. 398). This current study therefore further develops the empirical research by investigating the association between regular home working and divisions of unpaid work using representative survey data in the context of the UK. While the quantitative findings did not demonstrate an association between home working and more shared divisions of unpaid work, there were examples in the qualitative data that did. The mixed findings regarding home working in this study and previous studies

highlight the need for future research which includes a more nuanced measure of home working which may better account for timing and regularity of use.

7.2.3 Combinations of work flexibility at the couple level matter

Regarding flexi-time and part-time work, although the quantitative findings suggest an association between these types of work flexibility for fathers and shared divisions of unpaid work, these associations are modest and other factors also appear to be at play. The qualitative findings demonstrate how fathers in dual-earner parent couples used these types of flexibility in their daily work-life experiences and how this flexibility may intersect with that of their partner to inform more shared divisions of unpaid work within a couple. However, how it affected their divisions of unpaid work differed by couple and was also linked to the various combinations of work flexibility available to them both and particularly the working patterns of the mother (as in the case of father homeworking above) which, if this involved part-time or other reduced hours work, was associated with mother-dominant divisions of unpaid work. These qualitative findings support the quantitative findings that mothers' full-time work was also associated with more equally-shared divisions of unpaid work which is in line with the previous literature (Crompton et al, 2005) and literature that has linked mothers' full-time work to increased father childcare involvement (Norman, Elliot and Fagan, 2014; Walthery and Chung, 2021).

These findings are also in line with the qualitative findings of Radcliffe and Cassell (2015) who found that in dual-earner professional couples where mothers had the more flexible job than their partner, the mother tended to take on the responsibility for resolving the work-family conflict such as taking time off when their child was sick or organising alternative childcare. However, where the father had the more flexible job (which often involved flexi-time and home working), both parents experienced the conflict and both took responsibility for resolving it. It follows that the parent who is involved in resolving work-life conflict may also take on the main carer role and the associated cognitive aspects of this (refer to the discussion of the mental load below), i.e. it leads to that parent doing more unpaid work. It is interesting that where the father had the greater flexibility Radcliffe and Cassell (2015) did not find that the father took on the responsibility for resolving the conflict but that it was a shared responsibility which was in part explained by mother gatekeeping tendencies. In this current study, there were two couples in the sample who appeared to have more father dominant divisions of unpaid work however they were still classified as having more equally-shared divisions given the active role of the mother in housework and childcare which may be related to a conflict between their participation in full-time work and their mothering identity (Himmelweit and Sigala, 2004; Faircloth, 2020) and possibly also included gatekeeping behaviours.

Emslie and Hunt (2009) argue for a gendered approach to boundary management theory (Clark, 2000) given differences in the way that men and women negotiate work and life with women suggested to have more, and longer-lasting, experiences of juggling a variety of roles due to both childcare and elder care. The findings of this study support this gendered approach in mixed-sex couples and go further in underlining the importance of also taking into account couples' combinations of work flexibility (as well as individual mother and father use of flexibility) when investigating how flexibility is associated with divisions of the unpaid work of dual-earner couples. This combination at the couple level, drawing on the intersecting lives principle of life course research (White-Riley, 1998), may in part determine mother-dominant or more equally-shared divisions of unpaid work, and as such whether fathers are helpers or sharers.

Other factors feed into the relationship between parents' work flexibility and couples' divisions of unpaid work. The finding that couples in which the mother earns more may have more shared divisions of housework and childcare is in line with economic bargaining theories (Lundberg and Pollak, 1996) and consistent with the empirical research (Kan, 2008; Schober, 2013). As expected, the findings also show support for sociological theories (West and Zimmerman, 1987; Stets and Burke, 2000) regarding divisions of unpaid work which have been consistently found to exist in the empirical literature (Himmelweit and Sigala, 2004; Crompton, Brockmann and Lyonette, 2005; Kan, 2008a; Schober, 2013; Lyonette and Crompton, 2015; Chesley, 2016; Medved, 2016b; van der Lippe, Treas and Norbutas, 2018; Faircloth, 2021). The non-traditional gender role attitudes of both parents were linked to couples with more equally-shared divisions of housework and childcare in the quantitative findings whereas more traditional attitudes were linked to mother-dominant divisions. The qualitative findings support this, suggesting that while economic factors such as earnings power were important, it was conformity to gendered norms from culture and gendered institutions (Sayer, 2005, p. 541) that may have prevailed for some couples and were associated with mother-dominant divisions of unpaid work.

7.2.4 Fathers' time out of paid work may be associated with more equally-shared divisions

The qualitative findings also demonstrate that "no single phase of a person's life can be understood apart from its antecedents and consequences" (White Riley, 1998' p.3). In past decisions regarding work-life changes made shortly around the time of the birth of their first child, the financial situation of the couples appeared to play a key part which intertwined with the attitudes, beliefs and preferences of both parents to inform current divisions of unpaid work. This may not be a surprise given the previous research regarding the economic and sociological factors linked to divisions of unpaid work mentioned above. However, the qualitative findings

go further than previous research in finding that in couples in which the father as well as the mother had taken time out of, and/or made changes to, his paid work after the birth of a child was associated with more shared divisions of unpaid work. This may reflect Gatrell *et al's* (2015) finding that some men may prioritise childcare over paid work and goes against Faircloth's (2020) conclusion that breadwinning appears to remain central to men's work. It is also consistent with the quantitative findings of this study regarding the link between work flexibility and shared divisions of unpaid work as well as previous literature from country contexts outside the UK regarding parental leave. Leave for fathers may positively affect their future involvement in the unpaid work (Rehel, 2014; Bunning, 2015; Tamm, 2019) which includes childcare but also housework, although the link with housework may be weaker (Thomas and Hildingsson, 2009; Almqvist and Duvander, 2014). Recent longitudinal qualitative research into UK fathers that took Shared Parental Leave (SPL) suggests that divisions of childcare within couples may become "less tethered to traditional gender norms" with evidence of both mothers and fathers making changes to their paid work (e.g. reducing hours, seeking flexibility) to accommodate childcare post-SPL (Banister and Kerrane, 2022, p.9).

One explanation for the differences between couples' experiences in the qualitative sample (in couples with more mother-dominant divisions of work it appeared to be only the mother who had made changes to her paid work) may therefore be the change in the UK's policy context. While Additional Paternity Leave was introduced in 2011, the equality discourse and public debate around fathers as carers did not gain momentum until Shared Parental Leave (SPL) was introduced in 2015 and the gender pay gap reporting regulations were announced and introduced in 2017. Couples in the sample (who tended to be those couples, but not all, who had mother-dominant divisions of unpaid work) who had children before these changes had more limited options in terms of which parent took leave when their first child was born. Those in which the mother earned more than the father (and where rationally it might make sense to prioritise her paid work over his) may have fallen in line with gendered norms around breadwinning given a policy context that assumes mothers should take time out of paid work after the birth of a child and fathers should continue to participate in paid work (Lewis and Campbell, 2007). However, it is important to add that time out of paid work for the father in the qualitative findings was evident in couples in the sample with higher household income groups but not couples in the lower household income brackets and indeed SPL to date has a very low take up that is concentrated among higher-earning parents in the upper occupational classes (Howlett, 2020; Banister and Kerrane, 2022).

7.2.5 More equal sharing of physical unpaid work may mean more sharing of cognitive aspects

The qualitative findings also suggest that dual-earner couples who share the physical aspects of the unpaid work may also share the cognitive aspects, i.e. more shared divisions of the unpaid work within couples may alleviate the mental load (which may be more likely in mothers). The quantitative measure of unpaid work in this study was limited to the physical aspects of childcare and housework that time use statistics show that UK dual-earner couples spend the most time on however the mixed methods nature of this study meant that the qualitative findings could be used to provide a fuller picture of the unpaid work of dual-earner couples by providing insights into the cognitive aspects (Daminger, 2019).

This cognitive work, i.e. the thinking, planning and organising of family members, may become what has commonly been referred to as a “mental load” (Emma, 2017) when it includes an emotional element; the enduring nature of caring may lead to “endless rumination and worry” which may negatively affect parents’, particularly mothers, paid work experiences (Dean et al, 2021, p.2). The findings presented in Chapter 6 suggest that the mental load may be more evident in mothers than fathers which is in line with the previous literature (Offer, 2014; Miller, 2018). However, there was also some suggestion that dual-earner couples who share the physical aspects of the unpaid work may also share the cognitive aspects; more shared divisions of the unpaid work within couples may therefore alleviate the mental load of mothers. This is in line with Risman and Johnson-Sumerford’s (1998) qualitative US in-depth study which found that parent couples who divided the physical aspects of household work and childcare equitably, in many cases (but not all), also shared the worrying and scheduling of family life. It also in line with the findings of Walthery and Chung (2021) that an increased share of childcare provided by UK fathers was associated with a number of positive well-being outcomes, primarily for mothers.

This study therefore contributes to recent research and commentary regarding the importance of considering the cognitive, as well as the physical, aspects of the unpaid work of couples. Specifically it suggests that the more equal sharing of the physical aspects of unpaid work may also be associated with the more equal sharing of the cognitive aspects of unpaid work. Given the findings of this study that the work flexibility of fathers may enable the more equally-shared divisions of the physical aspects of unpaid work it follows that the work flexibility of fathers may also enable more equally-shared divisions of its cognitive aspects. This further adds to the evidence base of the importance of work flexibility and its links to the potential for positive effects at the household level both in terms of gender equality in the home but also in alleviating the mental load of mothers (Dean et al, 2021). This is important because this load has been

linked to the poorer emotional wellbeing of mothers (Offer, 2014) which may increase alongside the reported increase in the number of mothers who work full-time (Connolly et al, 2016) and who are at greatest risk of a “second shift” (Hochschild, 1989; Sayer et al, 2005). It may also restrict the time and commitment that mothers feel they have available to dedicate to paid work in line with theories of time availability given sociological, as well as economic, explanations of divisions of unpaid work such as the “doing gender” approach (West and Zimmerman, 1987) and identity theory (Stets and Burke, 2000).

This phase of the study has focused on worker-led flexibility and its relationship with more equally-shared divisions of unpaid work of dual-earner parent couples. However, more equally-shared divisions of unpaid work may also be present in couples where parents have little or no work flexibility or those in which the father has not taken time out of paid work. The qualitative findings also found evidence that couples may organise their unpaid work around organisation-led flexible working practices such as shift work which led to a couple being able to share childcare, albeit with the detriment of them not seeing each other as a result of one parent having to work unsocial hours and weekends. This is in line with Gerstel and Clawson’s (2014) US study of fathers and UK research that has researched the impact of shift work on family and leisure time (Zilanawala, 2021).

7.3 Integration of findings and consideration of the recent Covid-19 pandemic

Drawing these findings together, the section above shows that those in the lowest occupational groups are the least likely to use worker-led flexible working (i.e. home working, flexi-time, compressed hours, job shares and term time working) and the most likely to use other types of flexible working (with mothers much more likely than fathers to do so). These other types of flexible working predominantly include part-time working which the findings have shown that, for mothers, is linked to mother-dominant divisions of unpaid work. It is promising for gender equality at home that dual-earner couples in which fathers work part-time and/or use flexi-time may have more shared divisions of housework and childcare. However, the reality is, as also shown in the section above, that the use of flexi-time does not appear to have increased over the period 2010-2019 and the number of fathers who work part-time is small and again does not appear to have changed in comparison to mothers over the same period. Further, the only form of worker-led flexible working that has grown in the period is home working which was not found to be associated with shared divisions of unpaid work in the quantitative findings, although there was some suggestion of this in the qualitative findings.

One explanation for this lack of change may be the persisting norm of the ideal worker, i.e. one that is assumed to be able to work full-time, to be present in the office, able to travel and work long hours as needed, free of outside commitments (Acker, 1990). While the findings suggest there has been an increase in the use of home working this may be explained by technological advances that make it easier to work remotely (CIPD, 2019), and more intensively (Kossek and Lautsch, 2018; Van der Lippe and Lippenyi, 2020) thus leading to a “flexibility paradox” (Chung, 2022). The findings show that there appears to have been no increase in the use of other forms of worker-led flexible working such as flexi-time, term-time only or job shares, which, combined with an increase in home working, may have been some indication of a move away from the ever-present ideal worker norm.

This study was conducted using data collected before the Covid-19 pandemic which, over the past two years, has highlighted existing inequalities in the use of work flexibility. Many organisations switched to remote working overnight. Employees who were able to work from home did so and these employees were often also able to work flexibly in other ways such as using flexi-time to accommodate the home learning of primary school age children. Close to 58% of employees in the Professional, Scientific and Technology industry were working from home all the time in June 2020 (Parry et al, 2021) however, large swathes of industries such as construction and retail came to a stand-still if they were not deemed essential and many employees were unable to work remotely. As a result many employees were furloughed and/or made redundant. There is much speculation that positive employer and employee experiences of work flexibility during the pandemic will result in its more widespread use, expediting a move away from the ideal worker norm towards an emphasis on outputs (i.e. work produced) than inputs (i.e. number of hours). Recent research supports this (Chung et al, 2021; Flexibility Works, 2021; Parry et al, 2021) yet concerns remain about the impact of increased remote/home working on innovation and creativity and organisations may differ in the extent to which they support (Hobsbawm, 2022) the flexibility by default approach proposed in a recent government consultation (BEIS, 2021). Indeed, the UK government itself, in relation to civil servants continuing to work at home, has indicated a preference for them to return to the office (Taylor, 2022).

However, following the pandemic, the expected increases in the use of work flexibility primarily relate to the use of home working and flexi-time. The findings of this study suggest that the use of home working was the only type of worker-led flexibility that increased over the period 2010-19 and suggested a widening of its use between employees at the highest job levels and those at the lowest. It therefore seems likely that this gap will continue to widen post-pandemic, both

between those at the highest and those at the lowest levels but also between those in certain sectors, for example those working in public administration versus those in health and social care who cannot work remotely. Research (Warren, Lyonette and The UK Women's Budget Group, 2021) focused on working class women's experiences during the pandemic finding that few working class women worked from home during the pandemic and more generally that they had poor access to good quality flexible working arrangements. It remains to be seen if, following the pandemic, there will also be a change in attitudes towards the use of other types of flexibility, particularly reduced hours flexibility (e.g. part-time, term-time and job shares). Reduced hours flexibility may be the "strongest violation" (Cook et al, 2021, p. 6) of the ideal worker norm and therefore most resistant to change, particularly among those working at the highest levels. Research in this area which explores employer attitudes towards reduced hour working in the light of their experience of flexible furlough working arrangements may provide further insight (Gascoigne and Kelliher, forthcoming).

The pandemic has also brought divisions of the unpaid work of dual-earner couples to the fore. The closure of schools, nurseries and other childcare settings in March 2020 meant many parents experienced major increases in the time they needed to spend on childcare but also time on housework linked to increased family presence in the household. Parents with continuing paid work responsibilities were particularly under pressure (Working Families, 2020). The findings of this current study highlight the intertwinement of the work and family experiences of mothers and fathers in dual-earner couples providing a more complete picture of the factors along the life course that are associated with more equally-shared divisions of unpaid work. The pandemic would also have been a turning point for many dual-earner couples, this intertwinement perhaps at its most obvious; the threat of furlough or redundancy possibly bringing financial considerations to the fore and an enhanced need to prioritise the paid work of one parent and the unpaid work of the other. Attitudes, beliefs and preferences of both parents may have been a lesser consideration.

Using the Understanding Society Covid survey data (University of Essex, 2021), Hupkau and Petrongolo (2020) found an overall narrowing of the housework hours gap in the UK during the first lockdown because men increased their housework hours more than women. However, when focusing on couples with children the housework hours gap actually widened for women. The childcare gap also widened with the increase in fathers' weekly hours spent on childcare post-pandemic increasing by 6.8 hours compared to mothers which was 9.5 hours. However, when looking at whether couples reported the childcare as mainly female, mainly shared or mainly male, Hupkau and Petrongolo (2020, p.646) found a "striking" increase in the share of

households in which the father was classed as the main childcare provider; this was 2.6% in 2016-2017 whereas in May 2020 it represented around 20% of households. One explanation for this may be different combinations of paid work and work flexibility at the couple level specific to the pandemic. For example, couples in which fathers were able to work from home but mothers were not, or fathers who were furloughed/made redundant and were available to take on the childcare (Andrew et al, 2021). Indeed, other research coming out of the pandemic suggests a positive relationship between fathers' home working and their levels of childcare (Chung et al, 2021). Work flexibility may have also informed couples' divisions of unpaid work via the possibility that existed for parents to request furlough (full or flexible) for childcare reasons given the absence of other options at the time of the first lockdown such as external childcare (e.g. childminder, nursery, school or grandparent help).

It is unclear whether these changes regarding divisions of childcare are lasting and future research is needed to determine whether these households maintain such divisions or revert to their pre-pandemic divisions of unpaid work. Again, inequalities in terms of the use of home working may mean that fathers who continue to work at home may have a better opportunity for continued involvement with childcare. However, the position may be very different for those fathers who were furloughed and return to a role which they cannot do remotely. Further, those who were made redundant and find a new role would not currently have the statutory right to request to work flexibly until they have 6 months of continuous service. Further, the findings of this study have also suggested that gendered norms around caring and breadwinning persist and further that divisions of housework in UK dual-earner couples may be more gendered than childcare. It is clear that UK policy must take a holistic approach to tackling this issues; recommendations in this regard are presented and discussed below.

7.4 Contributions of this study

The contributions of this study are discussed above in the summary of findings and synthesis with the relevant literature. These are summarised below:

7.4.1 Empirical contribution

The first phase of this study contributes to the research evidence (CIPD, 2012; Tipping and Perry, 2012; Gatrell *et al.*, 2014; Cook *et al.*, 2021) that has highlighted gendered and sectoral differences in the use of flexible working arrangements in the UK and extends these cross-sectional quantitative or qualitative approaches by taking a longitudinal approach using nationally representative data. Specifically, the gap in the use of home working and flexi-time between the highest and lowest job classes may have widened over the period 2010-19 which has particular

relevance in the light of the Covid-19 pandemic. In addition, the findings highlight a lack of any apparent change in the use of reduced hours flexibility by UK fathers compared to mothers over the period from 2010-2019. This phase of the study also contributes by providing valuable triangulation with prior longitudinal research (CIPD, 2019) in providing a more up to date picture of flexible working in the UK using different data covering the period from 2010 to 2019. This will be a useful starting point with which to compare any future changes in the use of flexible working as a result of the Covid-19 pandemic. Specifically, while there appears to have been a small increase in the use of worker-led flexible working (i.e. regular home working, flexi-time, compressed hours, job shares and term-time work) over the period 2010 to 2019 this increase appears to be mainly due to increases in the use of home working among employees working at the highest job levels.

The second phase of this study contributes to the growing body of literature that recognises that studying fathers (Cook et al., 2021) and interactions at the couple level (McMunn et al., 2020) is also important when considering the impact of work-family policy. It adds to the understanding of how fathers use work flexibility and the impact of this at the couple level, i.e. whether and how it affects couples' divisions of unpaid work. Previous studies have focused on the relationship between work flexibility and the absolute effect on fathers' childcare time whereas this study contributes by looking at its effect on divisions of unpaid work within the couple which include both housework and childcare, taking the view that more equally-shared divisions of both are important if gender equality at home is to be achieved. Specifically, the findings of this part of the study build on previous international research (Kim, 2020; Kurowska, 2020; Carlson, Petts and Pepin, 2021) and recent UK research (Walthery and Chung, 2021) which has linked fathers' work flexibility to absolute increases in fathers' childcare time by suggesting that the use of flexi-time and part-time work by fathers may also be related to more shared divisions of both housework and childcare within a dual-earner parent couple.

Furthermore the findings of this study provide additional support for the empirical evidence of the importance of fathers' time out after the birth of a child in terms of its links with the more equally-shared unpaid work of couples. This importance has been suggested by the international research (Thomas and Hildingsson, 2009; Almqvist and Duvander, 2014; Rehel, 2014; Bünning, 2015; Tamm, 2019; Carlson, Petts and Pepin, 2021) and more recently in UK research (Banister and Kerrane, 2022).

This study also contributes to the research evidence by providing insights into the more cognitive aspects of unpaid work. These cognitive aspects have been referred to in previous

qualitative literature as “emotional work” (Emslie and Hunt, 2009) which has received more recent attention in the literature (Dean et al, 2021) as the “mental load” which may be more likely to be experienced by mothers. Specifically, the findings suggest that couples who share the physical aspects of the unpaid work may also share the cognitive aspects; more equally-shared divisions of the unpaid work within dual-earner couples may alleviate the mental load. This adds to the UK evidence base in this area, supporting past empirical US research with similar findings (Risman and Johnson-Sumerford, 1998).

7.4.2 Methodological contribution

It is argued that in any study of unpaid work both housework and childcare must be considered given that both make up a large proportion of the time spent by dual-earner parent couples. Quantitative research has tended to focus more on childcare (Kim, 2020; Walthery and Chung, 2021), or is limited by the data available to only look at one aspect such as housework hours (Kan, 2008a; Aassve, Fuochi and Mencarini, 2014). Studies which have looked at couples’ division of unpaid work may be based on the perspective of one member of a couple only (Aassve, Fuochi and Mencarini, 2014) which does not address the contested nature of unpaid work within couples. In addition, research in this area does not tend to consider the implications of higher levels of missing data for fathers over mothers (Cook et al, 2021). This study therefore contributes methodologically by proposing a quantitative measure of unpaid work at the couple level that combines both housework and childcare and includes the perspective of both parents in recognition of the contested nature of unpaid work within couples. The measure used in this study is also aligned with policy focus (i.e. more equal sharing between couples) as opposed to absolute increases in father’s unpaid work which may be inconsequential for gender equality if the gap between mothers and fathers remains wide.

Studies in the area of work-life research tend to be either quantitative or qualitative in nature rather than adopt a mixed methods approach (Charlwood *et al.*, 2014; Bessa and Tomlinson, 2017; Ewald, Gilbert and Huppertz, 2020). The second phase of this study demonstrates the value that a mixed methods approach can bring. It has enabled explanations of the relationships between work flexibility and the unpaid work of couples and the importance of other factors to be explored, which are multiple and at times contradictory, the nuances of which would not be possible with only quantitative or qualitative data (Creswell, 2015). Specifically, this has helped explain how work flexibility and parental leave for both parents may provide mechanisms towards more equally-shared divisions of unpaid work within dual-earner couples, and has helped develop the theoretical insights discussed further below. The qualitative data also enabled concepts to be explored such as the mental load and earlier experiences of couples which helped

address some of the limitations of the quantitative data thus drawing on the combined strengths of both sets of data.

7.4.3 Theoretical contribution

Finally, this study contributes theoretically by underlining the importance of also taking into account couples' combinations of work flexibility (as well as individual mother and father use of flexibility) when investigating how flexibility is associated with divisions of the unpaid work of mixed-sex dual-earner couples. The combination at the couple level, drawing on the intersecting lives principle of life course research (White-Riley, 1998), may in part determine mother-dominant or more equally-shared divisions of unpaid work, and as such whether fathers are helpers or sharers. This extends boundary management theory (Clark, 2000), which is predominantly focused on individual negotiation of work-life boundaries (Piszczek and Berg, 2014) to the couple level. When examining the ability of a dual-earner parent employee to manage their work-life boundaries through their use of work flexibility researchers should also consider the work flexibility of the employee's partner when looking at outcomes such as work-life fit, i.e. "the ability to successfully integrate work and family life" (Jeffrey-Hill, 2008, p.157). For example, two employees with the same employer may have the same level of work flexibility available to them but with vastly different outcomes as a result of their wider family context.

Indeed, also overarching boundary management theory should be the more general life course theory that "no single phase of a person's life can be understood apart from its antecedents and consequences" thus recognising the theoretical importance of also understanding a couples' previous experiences (e.g. regarding parental leave) and wider context when understanding their current divisions of unpaid work. This wider context might include other unpaid work support available to the couple such as older children helping with housework (Gershuny and Sullivan, 2014), grandparent help or outsourced childcare arrangements but also other factors constraining the availability of such support such as the additional needs of a disabled child. This also has implications for organisations, and is linked to the recommendation (see further below) that parents' diverse life circumstances should be recognised; organisations may wish to ensure that their policies and practices consider a broader conceptualisation of life relevant to all employees (Kelliher, Richardson and Boiarintseva, 2019).

7.5 Recommendations for policy

While the findings suggest that UK fathers had changed very little in the period from 2010-2019 in the extent to which they work flexi-time, at home and part-time, the findings also suggest that for those fathers in dual-earner couples who do work in these ways there are positive outcomes

at the household level in enabling more shared divisions of both housework and childcare which were also connected to female participation in full-time work. Given the importance of this to helping close the UK's gender pay gap in relation to motherhood (Folbre, 1994; Crompton, 1999; Ciccia and Bleijenbergh, 2014; Equality and Human Rights Commission, 2017; Government Equalities Office, 2018b) this adds to the evidence in support of initiatives which aim to increase the use of flexible working, particularly by fathers. However, the findings of this study also underline the need for both mothers and fathers in dual-earner couples to be consistently supported in all types of workplace, in recognition of their intersecting lives along the life course and the need to consider the impact on the couple as well as the individual parent. It is important that UK policy enables both mothers and fathers to be able to take leave after the birth of a child and to use work flexibility to organise their paid work around their unpaid work. Couples in which both parents are willing and able to make work changes to accommodate family needs are likely to have more options as to how they divide their paid and unpaid work.

This study has not considered UK policy on childcare provision in detail; this has been well-documented (Himmelweit and Sigala, 2004; Lyonette, Kaufman and Crompton, 2011; Alakeson, 2012) and themes around the high cost and lack of support for children aged under 3 emerged during some of the interviews in this study. It is essential that childcare costs are not a barrier to participation in paid work at any socio-economic level which is particularly an issue for single parents who may have even fewer childcare options than couples (Radcliffe, Cassell and Malik, 2022). Government policymakers must therefore also focus on ensuring the provision of quality and affordable childcare (Duncan *et al.*, 2004) alongside a focus on flexibility and parental leave as a way to maximise the choices available to all working parents.

The limitations and complexities of the current shared parental leave regulations have been highlighted in Chapter 2 (Atkinson, 2017; Banister and Kerrane, 2022). Given the findings of this and other studies that, alongside work flexibility, time off for fathers after the birth of a child may be connected to more shared divisions of unpaid work, the role of employers and the government must be to ensure more fathers have this opportunity. A government consultation to set out high level options for reforming existing entitlements took place in 2019 (BEIS, 2019) however any reforms have yet to be announced at the time of writing. Organisations play a key role here and indeed some have gone beyond the statutory minimum requirements, for example by creating parental leave for fathers which is independent from that of mothers and also enhances leave pay beyond the statutory minimum (Treanor, 2019).

The above may be easier said than done. While the Covid pandemic has expedited the debate on flexible working, the future is uncertain. Changing employer requirements regarding flexible working or parental leave is likely to create an additional burden that the government may wish to avoid during a period of post-pandemic recovery, despite the associated economic benefits that this may bring, as set out in Chapter 1. This is already evident in the recent announcement that there will be no mandatory requirements for UK organisations to publish their ethnicity pay gap (Morales, 2022).

7.6 Recommendations for employers

This study took the view of feminists that the more equal sharing of the unpaid work between parent couples is a key element of closing the gender pay gap in relation to motherhood. The question remains as to whether truly equal sharing of both paid and unpaid work is possible or desired. A sense of prioritising one parent's paid work and the other's unpaid work was often evident in the findings (although gendered norms around caring and breadwinning also featured). A move towards a future in which both parents have the option to participate in quality flexible work alongside family responsibilities is needed rather than the current, more static, position (shown in this study) in which one parent may prioritise their paid work in order to fulfil (and thus perpetuate) organisational expectations regarding the ideal worker with the other specialising in unpaid work which may result in them having the more flexible (and possibly lower quality) job.

This study has not focused on the connections between the use of the work flexibility and work intensification or flexibility stigma. These concepts have been well-evidenced in the literature (e.g. Michielsens et al, 2013; Cahusac and Kanji, 2014; Kelland, Lewis and Fisher, 2022) and relate to the potential for negative outcomes of work flexibility which is relevant for all workers, not just parents. Any policy focus that aims to increase flexible working must also take into account the potential for these negative consequences. Recent discussions and campaigns for a four day working week (Fontinha and Walker, 2021; 4 day week, 2022) argue that it will help address the long working hours culture and benefit employees by providing more rest, leisure and time to fulfil childcare duties as well as improving gender equality by enabling a more equal share of paid and unpaid work between parents. That is, if all employees are working flexibly then by default any associated stigma should be limited. Other benefits are claimed for the employer, economy and the environment. Much work is still to be done; while a four day week might in theory work with certain traditional 9-5, five day a week jobs it is unclear how it will apply to those working in more informal, precarious and unpredictable ways (Marks, 2021).

Regardless, it is argued that an overarching policy change is needed to address what appear to be deeply entrenched ideal worker norms that are relevant to both parent and non-parent employees (Chung, 2022).

In terms of recommendations for employers, a more holistic approach to increasing the use of flexible working in the UK, beyond home working at the highest job levels, is needed. This would require an organisational focus on the needs of all employees to help achieve flexibility for all. Such a focus may wish to consider a wider definition of life beyond that of parenting (Wilkinson, Tomlinson and Gardiner, 2018; Kelliher, Richardson and Boiarintseva, 2019) and draw on the arguments of Tomlinson et al (2018) regarding the need for flexible, dynamic careers “which meet the individual’s needs and preferences for flexibility and sustainability as life circumstances change” (2018; p.6). This study has focused on UK dual-earner couples and neglects to consider same-sex parents or single parents due to limited resources. However, all parents’ diverse life circumstances must be recognised and by organisations ensuring that their policies and practices consider a broader conceptualisation of life relevant to all employees, these policies and practices would also encompass a broader conceptualisation of family beyond the traditional nuclear static that recognises the “fluidity and variability of family forms” (Gatrell, Ladge and Powell, 2022, p. 20).

It is an ideal time to harness the opportunities afforded by the recent pandemic to further increase the use of worker-led flexibility in the UK which, other than home working, appears to have stalled in the UK. Recent government proposals (BEIS, 2021) to give UK employees a day one right to request flexibility and a move towards a flexibility by default approach may be one step towards this. However, given the findings of this study regarding the differences between the lower and higher occupational groups in terms of their use of home working and flexi-time and the potential for these gaps to widen further as a result of the pandemic, one key policy focus for organisations must be to reduce these inequalities.

It is recognised that some jobs simply cannot be done remotely as they require an in-person presence. In this case, organisations must explore more creative ways to create flexibility in jobs capitalising on some of the practices coming out of the pandemic which may involve flexibility around the timing of when the work is done such as flexi-time, greater choice regarding shift patterns or ways in which to adapt a role so it is compatible with reduced hour working. Solutions in these areas often need to be considered at the team level (e.g. to ensure continuous service cover) rather than the individual job level. Therefore it follows that employers should be more proactive in identifying ways to give all employees more flexibility in their roles rather than

wait for individual flexible working requests to be submitted (Gascoigne, 2021) or for individual employees to agree informal arrangements with their line managers (which may lead to perceptions of unfairness among colleagues if due to issues of trust and control only certain employees are able to agree informal flexibility (De Menezes and Kelliher, 2017). Some of the inequalities at the occupational class level, in terms of the use of work flexibility, may to some extent be mitigated by the sector in which an employee works. This study found that those working at lower job levels were less likely to use worker-led flexible working but that those working in the central government and civil service were the most likely to do so. Higher percentages of use were also noted in local government and councils, compared to the private sector. The sharing of good and innovative practice across all sectors is therefore likely to be useful for employers.

There must also be a continued focus on addressing negative attitudes towards the use of reduced hours flexibility at the higher job levels; employers should seek to create a workplace culture where flexible and part-time working is valued in the same way as full-time working patterns. This can be achieved by ensuring flexible working is visible and celebrated, with strong messaging from senior leaders within the organisation and senior jobs advertised at the outset as suitable for part-time, term-time or job share (Timewise, 2020). Employers should track flexible working requests, and whether or not they are granted enabling them to address any issues through workplace policies and training for line managers (Close the Gap, 2021).

7.7 Limitations

Measuring the availability and use of work flexibility is challenging and the quantitative findings are limited to the work flexibility constructs available in survey data. The findings of this study reflect the more formal flexible working arrangements that employees have in place rather than more ad hoc, informally agreed arrangements, an increase in which the CIPD (2019) suggests may explain the lack of increase in formal arrangements and a pattern which was in fact found in the qualitative sample who tended to have arrangements that had been informally agreed with their line manager or colleagues. Furthermore, as shown in Chapter 4, there appears to be only a small increase in the use of flexible working in the UK over the period 2010-19. This increase will be due to both changes within employees (e.g. they became parents in this period or they were promoted into jobs roles that were more flexible) and changes between employees (e.g. certain sectors have become more flexible due to legislative change or advances in technology). Initial examination suggested that this was in the main related to between people change however it was not possible to specifically distinguish this in the findings. Also, given some of

the smaller categories within some of the independent variables (e.g. the smaller public sector categories) the changes over time must be interpreted with caution.

These findings contribute to the growing body of knowledge regarding the relationship between work flexibility and couples' divisions of unpaid work. They suggest that use of flexibility for parents is one of the factors that is important for dual-earner couples in managing their paid work and home responsibilities and that flexibility for fathers in particular may be associated with more equally-shared divisions of childcare and housework. However, the findings of Chapter 5 do not establish a causal link between working flexibly and more equally-shared divisions of unpaid work. For example, it is possible that couples with non-traditional gender role attitudes desire to share the unpaid work and seek flexibility as a result (i.e. flexibility is a mediating factor which enables couples with non-traditional gender role attitudes to achieve their desired divisions) rather than flexibility leading to shared divisions of unpaid work.

The quantitative findings of Chapter 5 are limited by the unpaid work constructs in the available survey data which involved survey respondents providing generalisations or weekly averaging of levels of unpaid work. These measures were not able to reflect differences during weekdays compared to weekends which research has shown exist for divisions of childcare (Walthery and Chung, 2021) nor was the survey data able to distinguish between routine and interactive childcare as other studies have done (Argyrous and Rahman, 2017; Kurowska, 2020; Carlson, Petts and Pepin, 2021) and which is likely to provide further insights as to how fathers use their flexibility. In addition, due to the limited size of the category it was not possible to specifically investigate the relationship between father flexibility and couples whose division of unpaid work was father-dominant. Therefore the quantitative findings focused only on the distinction between couples with mother-dominant divisions of unpaid work versus those with more equally-shared divisions (which included those with father-dominant divisions).

Analysis of the qualitative data has led to the development of further insights into the experiences of mothers and fathers in UK dual-earner couples which, as shown above, has complemented the quantitative data and also helped address some of its limitations; for example it allowed the more cognitive aspects of unpaid work to be examined. The sample of dual-earner parents included a range of household groups, occupations and sectors however the sample was small, not representative of UK dual-earner couples and as such the findings cannot be generalised beyond this study. Further, due to limited resources of cost and time it was possible to interview only one parent in each couple. I was mindful of this when analysing the data and possible points of contention are highlighted in the findings, however, it is likely that having only

one parent's view has at times resulted in a one-sided viewpoint particularly where more contested areas (e.g. involvement in the unpaid work) are concerned.

Both quantitative and qualitative work-life research may involve samples that under-represent fathers (Costigan and Cox, 2001; Leach *et al.*, 2019; Yaremych and Persky, 2022) which is also a limitation of this study. As shown in Chapter 3, men were more likely to be proxy respondents to the survey and therefore fathers in dual-earner couples were less likely than mothers to answer the survey questions on work flexibility and unpaid work. The quantitative findings regarding couples' divisions of unpaid work may therefore be biased towards the mother's perspective despite the attempts to maximise the use of the available data for fathers as described in Chapter 3. In addition, mothers were over-represented in the sample of dual-earner parents interviewed and the fathers who participated tended to be those with higher household incomes who worked in professional and managerial occupations, reflecting the findings of Costigan and Cox (2002). The qualitative findings of this study are therefore limited in their ability to reflect the experiences of fathers working at lower job levels. This study initially planned to conduct focus groups with hard to reach groups (e.g. fathers working at lower job levels) however due to limited resources was not able to do so.

This study has focused on gender and class differences in the use of worker-led flexibility and divisions of unpaid work however one limitation is that it did not consider differences by ethnicity which may be particularly relevant to divisions of unpaid work in couples (Kan and Laurie, 2016) and is important for a fuller understanding of how to tackle gender pay gap which has been found to differ by ethnicity (Breach and Li, 2017).

7.8 Future research opportunities

Future survey design may wish to consider more nuanced constructs of work flexibility. This may include questions which ask respondents about the origin of their work flexibility, i.e. whether it was approved via a formal flexible working request, whether it was an informal arrangement agreed with a line manager or due to the high autonomy in a role. This will enable a more nuanced analysis of future trends of the use of flexible working in the UK which is essential in light of the pandemic given the inequalities between those at the higher and lower job levels and the above recommendation that organisations must focus on the needs of all employees to work towards flexibility for all.

Research may also wish to extend this current study to examine changes in the use of flexible working from 1 January 2020 onwards. The next wave of data from the Understanding Society Household Longitudinal Study (University of Essex) is released in December 2022 (relating to

data collected over the period January 2020 to December 2021) and should provide interesting opportunities for analysis, particularly in comparing fathers' use of flexibility compared to mothers using the methods in this study. Indeed, future studies may also wish to examine changes in the unpaid work of couples over this period using the method used in this study which offers an alternative latent variable approach to modelling couples' divisions of unpaid work that includes both parents and both housework and childcare. Future research may also wish to employ this method using unpaid work measures from a different dataset to investigate whether the findings in this study are replicated.

The quantitative analysis in this study included mothers and fathers who were already parents in 2010-11. Given the qualitative findings regarding the link between time out of paid work for fathers and more equally-shared divisions of unpaid work, future quantitative research using more recent data to compare divisions of unpaid work in dual-earner couples in which fathers have and have not taken shared parental leave (available to parents from 2015) will be useful. This future quantitative research may also wish to consider the development of a measure for the more cognitive aspects of the unpaid work. Daminger's (2019) qualitative findings regarding the four components that make up the cognitive work of parents (i.e. the anticipating of needs, the identifying of options, deciding between options and the monitoring of results) may be a useful starting point. In addition, Dean et al (2021) note that a robust and valid measure which quantifies the mental load is lacking in work-family survey research. Development of such a measure will enable the investigation of the scale of the phenomenon and also of the factors that may alleviate it. For example, the qualitative findings of this study that more equally-shared divisions of unpaid work within couples may alleviate the mental load of mothers may be tested. Such a measure may wish to draw from the parental well-being (Walthery and Chung, 2021) and work-family conflict (Kossek and Lee, 2017) literature.

Focus groups within case study organisations may be a valuable way of gathering data from fathers at lower job levels to help understand their experiences of work flexibility and parental leave and identify ways in which organisations can better meet their needs. Father-focused recruitment strategies rather than gender-neutral methods asking for "parents" have been found to be more successful in recruitment of fathers (Leach et al, 2018, Yarenych and Persky, 2022) and are likely to be needed in future research. Research aimed at other under-researched groups of fathers such as those in ethnic minorities, same-sex couples or non-resident fathers is also needed to develop further insights into fathers' work-life experiences (Bryson and McKay, 2018; Gatrell, Ladge and Powell, 2022).

The results also suggest that women (non-mothers) in the sample became more likely to work in other types of flexibility over the period. The reasons for this were not examined in this study but suggest the women may keep their part-time hours after their children are no longer dependent and may be related to other caring responsibilities such as care of grandchildren or assisting elderly parents (Emslie and Hunt, 2009). Future research may wish to further examine whether women retain their reduced hours and the reasons for doing so, including any barriers at the organisational level which may prevent them from increasing their hours in the future.

7.9 Conclusion

Work flexibility is a key policy aimed at helping mothers and fathers combine work and life. Previous studies have tended to focus on the experience of mothers but are starting to pay more attention to fathers and outcomes at the household level. This is important for understanding divisions of unpaid work (housework and childcare) within couples; mother-dominant divisions of unpaid work in part explain the persistence of the UK's gender pay gap and to accomplish gender equality in work and family roles it is important that both mothers and fathers are able to make work changes so that they can be involved in family life.

This study examined how the use of flexible working arrangements in the UK changed over the period 2010-19 with a focus on changes among mothers and fathers. It also examined the link between the work flexibility of dual-earner mixed-sex parent couples and their divisions of unpaid work (housework and childcare). Drawing on a mixed methods approach, consisting of longitudinal representative quantitative data from the UK Household Longitudinal Survey (University of Essex, 2021) and semi-structured interviews with dual-earner parent couples in Scotland, new knowledge was found.

Specifically the findings highlight a lack of any apparent change in the use of reduced hours flexibility by UK fathers compared to mothers over the period from 2010-2019. Furthermore, the gap in the use of home working and flexi-time between the highest and lowest job classes may have widened over the period 2010-19 which has particular relevance in the light of the Covid-19 pandemic. The findings also build on previous international research and recent UK research which has linked fathers' work flexibility to absolute increases in fathers' childcare time by suggesting that the use of flexi-time and part-time work by fathers may also be related to more shared divisions of both housework and childcare within a dual-earner parent couple. In addition, couples who share the physical aspects of the unpaid work may also share the cognitive aspects. Cognitive aspects of unpaid work may lead to a mental load, particularly for mothers therefore more equally-shared divisions of the unpaid work within dual-earner couples may

alleviate this. The findings also provide support for the empirical evidence of the importance of fathers' time out after the birth of a child in terms of its links to the more equally-shared unpaid work of couples. Finally, this study contributes both methodologically and theoretically. It proposes a quantitative measure of unpaid work at the couple level that combines both housework and childcare and includes the perspective of both parents in recognition of the contested nature of unpaid work within couples. It also underlines the importance of also taking into account couples' combinations of work flexibility (as well as individual mother and father use of flexibility) when investigating how flexibility is associated with divisions of the unpaid work of mixed-sex dual-earner couples.

The findings are important for policymakers and organisations wanting to increase the use of work flexibility in the UK and it is an ideal time to harness the opportunities afforded by the recent pandemic. Recommendations centre on a more holistic approach to increasing the use of flexible working in the UK, beyond home working at the highest job levels, which requires an organisational focus on the needs of all employees to achieve flexibility for all. It is essential that UK policy enables both mothers and fathers to be able to take leave after the birth of a child and to use work flexibility to organise their paid work around their unpaid work to accomplish gender equality in work and family roles. Future research must include more nuanced measures of work flexibility and examine trends in the use of flexible working following the pandemic.

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9 APPENDICES

9.1 Appendix 1

Unweighted summary statistics for the sample of 7,428 UK employees included in the logistic regression models reported in Chapter 4 (2010-11 compared to 2018-19)

Variable name	2010-11 Prop/Mean	2018-19 Prop/Mean
Parent	50%	42%
Gender	55%	55%
Carer	14%	17%
Age	40.4	48.4
Education		
No quals	3.34	2.29
GCSE or other qual	27.26	25.41
A Levels	21.96	20.88
Degree	47.44	51.42
Job Class		
Semi routine/routine	25.86	23.75
Lower supervisory	8.25	7.56
Intermediate	17.07	15.83
Management/professional	48.83	52.86
Organisational type		
Private	58.81	59.59
Other Public	3.08	3.18
Central govt or civil service	4.62	4.95
Local govt or council	17.76	15.21
University or gf educ	2.80	3.40
Health auth or NHS trust	9.80	10.19
Charity or voluntary	3.12	3.49
Org. size.		
1 to 9 employees	14.42	12.56
10-49	28.95	27.85
50-199	22.29	23.56
200-999	19.89	19.24
1000 plus	14.45	16.79
Autonomy in role		
Low	14.81	13.48
Medium	21.94	17.31
High	63.25	69.21
Region		
North East	3.78	3.74
North West	10.30	10.33
Yorkshire and the Humber	8.52	8.40
East Midlands	8.04	8.15
West Midlands	8.01	8.11
East of England	8.95	9.06
London	9.21	8.75
South East	11.91	11.86
South West	8.55	8.89
Wales	6.81	6.65
Scotland	9.32	9.39
Northern Ireland	6.61	6.67

Overall measures of stability	
Parent	77%
Carer	75%
Gender	100%
Age	55%
Education	94%
Job class	75%
Organisational type	72%
Organisational size	64%
Autonomy in role	55%
Region	95%

Measures of stability calculated using the xttab command on Stata

Proportion of UK employees using flexible working arrangements by independent variables in the model (models 1 and 2) reported in Chapter 4. Wave 2, 2010-11 only
Source: Understanding Society, University of Essex (2021)

Parent	Use of worker-led formal flex			Use of other types of flexibility		
	Not using	Using	Total	Not using	Using	Total
Not a parent	2818	801	3619	2898	721	3619
	77.87	22.13	100.00	80.08	19.92	100.00
Is a parent	2505	1028	3533	2331	1202	3533
	70.90	29.10	100.00	65.98	34.02	100.00
Gender						
Male	2459	679	3138	2734	404	3138
	78.36	21.64	100.00	87.13	12.87	100.00
Female	2864	1150	4014	2495	1519	4014
	71.35	28.65	100.00	62.16	37.84	100.00
Carer						
Not a carer	4571	1538	6109	4519	1590	6109
	74.82	25.18	100.00	73.97	26.03	100.00
Is a carer	752	291	1043	710	333	1043
	72.10	27.90	100.00	68.07	31.93	100.00
Education						
No quals	203	22	225	154	71	225
	90.22	9.78	100.00	68.44	31.56	100.00
GCSE or other qual	1595	358	1953	1378	575	1953
	81.67	18.33	100.00	70.56	29.44	100.00
A Levels	1191	372	1563	1116	447	1563
	76.20	23.80	100.00	71.40	28.60	100.00
Degree	2314	1075	3389	2565	824	3389
	68.28	31.72	100.00	75.69	24.31	100.00
Job class						
Semi routine/routine	1537	288	1825	1149	676	1825
	84.22	15.78	100.00	62.96	37.04	100.00
Lower supervisory	507	73	580	491	89	580
	87.41	12.59	100.00	84.66	15.34	100.00
Intermediate	849	371	1220	804	416	1220
	69.59	30.41	100.00	65.90	34.10	100.00
Management/professional	2401	1088	3489	2757	732	3489
	68.82	31.18	100.00	79.02	20.98	100.00

Organisational sector						
Private	3482	717	4199	3138	1061	4199
	82.92	17.08	100.00	74.73	25.27	100.00
Other Public	176	45	221	168	53	221
	79.64	20.36	100.00	76.02	23.98	100.00
Central govt or civil service	138	194	332	257	75	332
	41.57	58.43	100.00	77.41	22.59	100.00
Local govt or council	680	593	1273	917	356	1273
	53.42	46.58	100.00	72.03	27.97	100.00
University or gf educ	125	74	199	145	54	199
	62.81	37.19	100.00	72.86	27.14	100.00
Health auth or NHS trust	576	128	704	457	247	704
	81.82	18.18	100.00	64.91	35.09	100.00
Charity or voluntary	145	78	223	146	77	223
	65.02	34.98	100.00	65.47	34.53	100.00
Employee numbers	Not using	Using	Total	Not using	Using	Total
1 to 9 employees	815	219	1034	676	358	1034
	78.82	21.18	100.00	65.38	34.62	100.00
10-49	1620	448	2068	1467	601	2068
	78.34	21.66	100.00	70.94	29.06	100.00
50-199	1163	429	1592	1239	353	1592
	73.05	26.95	100.00	77.83	22.17	100.00
200-999	1017	399	1416	1053	363	1416
	71.82	28.18	100.00	74.36	25.64	100.00
1000 plus	697	332	1029	784	245	1029
	67.74	32.26	100.00	76.19	23.81	100.00
Job autonomy						
Low	923	133	1056	727	329	1056
	87.41	12.59	100.00	68.84	31.16	100.00
Medium	1230	337	1567	1135	432	1567
	78.49	21.51	100.00	72.43	27.57	100.00
High	3170	1359	4529	3367	1162	4529
	69.99	30.01	100.00	74.34	25.66	100.00
Region						
North East	194	72	266	197	69	266
	72.93	27.07	100.00	74.06	25.94	100.00
North West	538	202	740	539	201	740
	72.70	27.30	100.00	72.84	27.16	100.00
Yorkshire and the Humber	441	150	591	423	168	591
	74.62	25.38	100.00	71.57	28.43	100.00
East Midlands	440	129	569	419	150	569
	77.33	22.67	100.00	73.64	26.36	100.00
West Midlands	434	143	577	423	154	577
	75.22	24.78	100.00	73.31	26.69	100.00
East of England	474	155	629	452	177	629
	75.36	24.64	100.00	71.86	28.14	100.00
London	480	170	650	500	150	650
	73.85	26.15	100.00	76.92	23.08	100.00
South East	617	237	854	614	240	854
	72.25	27.75	100.00	71.90	28.10	100.00
South West	455	162	617	419	198	617
	73.74	26.26	100.00	67.91	32.09	100.00
Wales	360	132	492	361	131	492
	73.17	26.83	100.00	73.37	26.63	100.00

Scotland	513	158	671		500	171	671
	76.45	23.55	100.00		74.52	25.48	100.00
Northern Ireland	367	117	484		374	110	484
	75.83	24.17	100.00		77.27	22.73	100.00
Age group							
Under 25	413	57	470		302	168	470
	87.87	12.13	100.00		64.26	35.74	100.00
25 to 30	679	205	884		696	188	884
	76.81	23.19	100.00		78.73	21.27	100.00
31 to 40	1504	575	2079		1525	554	2079
	72.34	27.66	100.00		73.35	26.65	100.00
41 to 50	1840	702	2542		1860	682	2542
	72.38	27.62	100.00		73.17	26.83	100.00
51 to 60	795	267	1062		797	265	1062
	74.86	25.14	100.00		75.05	24.95	100.00
61 plus	92	23	115		49	66	115
	80.00	20.00	100.00		42.61	57.39	100.00

9.2 Appendix 2

MODEL 1 STEPWISE MODELS

Changes in worker-led flex 2010-2019

	Model 1a		Model 1b		Model 1c	
Use of worker-led formal flex						
Time			0.03***	(0.01)	-0.02	(0.01)
Constant	-1.83***	(0.04)	-1.99***	(0.05)	-1.85***	(0.06)
Residual variance	5.43***	(0.20)	5.44***	(0.20)	4.99***	(0.23)
Random slope variance					0.04***	(0.00)
ll	-		-		-	
	17300.84		17289.34		17236.16	
aic	34605.69		34584.67		34480.32	
bic	34622.66		34610.13		34514.26	
N	35774.00		35774.00		35774.00	

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Changes in worker-led flex 2010-2019

	Model 1d		Model 1e		Final weighted model 1	
Use of worker-led formal flex						
Time	0.00	(0.02)	-0.17	(0.10)	-0.05	(0.13)
Gender=1	0.57***	(0.13)	0.28*	(0.13)	0.26	(0.16)
Gender=1 x Time	-0.01	(0.02)	0.00	(0.02)	0.01	(0.02)
Parent=1	0.33*	(0.14)	0.23	(0.14)	0.27	(0.19)
Parent=1 x Time	0.01	(0.02)	-0.01	(0.02)	-0.02	(0.03)
Gender=1 x Parent=1	0.40*	(0.18)	0.50**	(0.18)	0.31	(0.23)
Gender=1 x Parent=1 x Time	-0.03	(0.03)	-0.04	(0.03)	0.00	(0.04)
Education: ref is no quals						
GCSE or other qual			0.58	(0.34)	0.65	(0.45)
A Levels			0.95**	(0.35)	1.11*	(0.46)
Degree			1.03**	(0.35)	0.96*	(0.45)
GCSE or other qual x Time			-0.01	(0.05)	-0.01	(0.07)
A Levels x Time			-0.02	(0.06)	-0.02	(0.07)
Degree x Time			0.03	(0.06)	0.06	(0.07)
Carer=1			0.15	(0.12)	0.08	(0.15)
Carer=1 x Time			-0.00	(0.02)	0.01	(0.02)
25 to 30			0.12	(0.32)	0.16	(0.45)
31 to 40			0.28	(0.30)	0.39	(0.41)
41 to 50			0.35	(0.29)	0.50	(0.41)
51 to 60			0.44	(0.30)	0.53	(0.41)

61 plus	0.61	(0.41)	0.82	(0.52)
25 to 30 x Time	0.09	(0.07)	-0.01	(0.10)
31 to 40 x Time	0.11	(0.07)	-0.02	(0.10)
41 to 50 x Time	0.10	(0.07)	-0.02	(0.10)
51 to 60 x Time	0.10	(0.07)	-0.01	(0.10)
61 plus x Time	0.04	(0.08)	-0.08	(0.10)
Organisational sector:ref is				
central govt				
Private	-2.02***	(0.19)	-1.89***	(0.26)
Other Public	-1.85***	(0.30)	-1.57***	(0.39)
Local govt or council	-0.28	(0.20)	0.04	(0.28)
University or gf educ	-0.87**	(0.28)	-0.40	(0.38)
Health auth or NHS trust	-2.25***	(0.23)	-1.98***	(0.32)
Charity or voluntary	-1.01***	(0.28)	-0.63	(0.36)
Private x Time	-0.01	(0.03)	-0.07	(0.04)
Other Public x Time	0.07	(0.04)	-0.01	(0.06)
Local govt or council x Time	-0.01	(0.03)	-0.08	(0.04)
University or gf educ x Time	-0.06	(0.04)	-0.15*	(0.06)
Health auth or NHS trust x	-0.08*	(0.03)	-0.19***	(0.05)
Time				
Charity or voluntary x Time	-0.05	(0.04)	-0.13*	(0.06)
No. of employees in org: ref				
is less than 10 employees				
10-49	-0.35*	(0.15)	-0.38	(0.20)
50-199	0.06	(0.15)	0.23	(0.21)
200-999	0.17	(0.15)	0.27	(0.21)
1000 plus	0.21	(0.17)	0.12	(0.23)
10-49 x Time	0.02	(0.02)	0.01	(0.03)
50-199 x Time	-0.01	(0.02)	-0.05	(0.03)
200-999 x Time	-0.00	(0.02)	-0.03	(0.03)
1000 plus x Time	0.02	(0.03)	0.03	(0.04)
North East	-0.10	(0.30)	-0.14	(0.37)
North West	0.18	(0.22)	0.01	(0.27)
Yorkshire and the Humber	0.14	(0.24)	0.01	(0.29)
East Midlands	-0.04	(0.24)	-0.16	(0.29)
West Midlands	0.11	(0.24)	-0.16	(0.28)
East of England	-0.10	(0.23)	-0.30	(0.28)
London	-0.17	(0.23)	-0.22	(0.30)
South East	0.28	(0.22)	0.24	(0.27)
South West	0.26	(0.23)	0.29	(0.27)
Wales	0.20	(0.25)	0.35	(0.31)
Scotland	-0.16	(0.23)	-0.11	(0.28)
North East x Time	0.03	(0.04)	0.01	(0.05)
North West x Time	0.06*	(0.03)	0.05	(0.04)
Yorkshire and the Humber x	0.06	(0.03)	0.06	(0.04)
Time				
East Midlands x Time	0.07*	(0.03)	0.05	(0.04)
West Midlands x Time	0.07*	(0.03)	0.09*	(0.04)
East of England x Time	0.08*	(0.03)	0.07	(0.04)
London x Time	0.09**	(0.03)	0.06	(0.05)

South East x Time			0.06	(0.03)	0.04	(0.04)
South West x Time			0.10**	(0.03)	0.06	(0.04)
Wales x Time			0.07	(0.04)	0.01	(0.05)
Scotland x Time			0.05	(0.03)	0.02	(0.04)
Autonomy in role: ref is none or very little						
Medium			0.66***	(0.16)	0.52*	(0.21)
High			1.14***	(0.15)	0.99***	(0.19)
Medium x Time			-0.04	(0.03)	-0.02	(0.03)
High x Time			-0.04	(0.02)	-0.01	(0.03)
Job class: ref is routine/semi- routine						
Lower supervisory			-0.26	(0.21)	-0.38	(0.31)
Intermediate			0.54***	(0.15)	0.45*	(0.19)
Management/professional			0.39**	(0.13)	0.43*	(0.18)
Lower supervisory x Time			0.01	(0.03)	0.02	(0.05)
Intermediate x Time			0.02	(0.02)	0.05	(0.03)
Management/professional x Time			0.07***	(0.02)	0.08**	(0.03)
Constant	-2.47***	(0.11)	-2.95***	(0.53)	-3.03***	(0.69)
Random slope variance	0.03***	(0.00)	0.02***	(0.00)	0.04***	(0.00)
Residual variance	4.83***	(0.22)	2.85***	(0.15)	2.56***	(0.18)
ll	-17140.6		-15827.2			
aic	34301.16		31814.36		.	
bic	34386.01		32491.48		.	
N	35774.00		35029.00		26989.00	

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Example Stata code extract for model 1

```
melogit employeedflex c.wave##female##parent c.wave##education c.wave##carer
c.wave##agegroup c.wave##ib3.orgsector c.wave##orgsize c.wave##ib12.region
c.wave##autonomy c.wave##joblevel || pidp:wave
```

APPENDIX TWO

MODEL 2 STEPWISE MODELS

Changes in other types of flex 2010-2019

	Model 2a		Model 2b		Model 2c	
Use of other type of formal flex						
Time			0.06***	(0.01)	-0.01	(0.01)
Constant	-1.74***	(0.04)	-2.08***	(0.05)	-1.90***	(0.06)
Residual variance	5.92***	(0.22)	6.00***	(0.22)	5.59***	(0.28)
Random slope variance					0.08***	(0.01)
ll	-		-		-	
aic	17461.24		17412.01		17238.63	
bic	34926.47		34830.01		34485.25	
N	34943.44		34855.47		34519.19	
	35774.00		35774.00		35774.00	

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Changes in other types of flex 2010-2019

	Model 2d		Model 2e		Final weighted model 2	
Use of other type of formal flex						
Time	-0.07***	(0.02)	-0.34***	(0.08)	-0.31*	(0.13)
Gender=1	0.63***	(0.14)	0.61***	(0.14)	0.81***	(0.19)
Gender=1 x Time	0.18***	(0.02)	0.16***	(0.02)	0.17***	(0.03)
Parent=1	-0.22	(0.16)	0.06	(0.16)	-0.16	(0.22)
Parent=1 x Time	0.03	(0.02)	0.04	(0.03)	0.08*	(0.04)
Gender=1 x Parent=1	2.35***	(0.19)	2.24***	(0.19)	2.13***	(0.26)
Gender=1 x Parent=1 x Time	-0.13***	(0.03)	-0.11***	(0.03)	-0.07	(0.04)
Education: ref is no quals						
GCSE or other qual			-0.03	(0.26)	0.01	(0.33)
A Levels			0.04	(0.27)	0.22	(0.35)
Degree			-0.04	(0.27)	0.10	(0.35)
GCSE or other qual x Time			0.00	(0.04)	-0.01	(0.05)
A Levels x Time			0.01	(0.04)	-0.02	(0.05)
Degree x Time			0.02	(0.04)	-0.02	(0.05)
Carer=1			0.04	(0.12)	0.19	(0.16)
Carer=1 x Time			0.02	(0.02)	0.00	(0.02)
25 to 30			-1.77***	(0.26)	-1.77***	(0.40)
31 to 40			-1.97***	(0.24)	-1.70***	(0.35)
41 to 50			-1.78***	(0.23)	-1.52***	(0.34)

51 to 60	-1.84***	(0.24)	-1.83***	(0.35)
61 plus	-0.50	(0.33)	-0.50	(0.47)
25 to 30 x Time	0.21***	(0.06)	0.22*	(0.10)
31 to 40 x Time	0.29***	(0.05)	0.28**	(0.09)
41 to 50 x Time	0.26***	(0.05)	0.27**	(0.09)
51 to 60 x Time	0.33***	(0.05)	0.38***	(0.09)
61 plus x Time	0.31***	(0.06)	0.36***	(0.10)
Organisational sector:ref is				
central govt				
Private	0.28	(0.23)	0.77*	(0.31)
Other Public	0.53	(0.34)	0.82	(0.45)
Local govt or council	0.15	(0.25)	0.29	(0.34)
University or gf educ	0.40	(0.34)	0.82	(0.48)
Health auth or NHS trust	0.36	(0.26)	0.60	(0.36)
Charity or voluntary	0.38	(0.32)	0.41	(0.41)
Private x Time	-0.01	(0.03)	-0.08	(0.05)
Other Public x Time	-0.08	(0.05)	-0.13	(0.07)
Local govt or council x Time	-0.04	(0.04)	-0.08	(0.05)
University or gf educ x Time	-0.01	(0.05)	-0.08	(0.07)
Health auth or NHS trust x	-0.01	(0.04)	-0.05	(0.06)
Time				
Charity or voluntary x Time	0.00	(0.05)	0.02	(0.06)
No. of employees in org: ref				
is less than 10 employees				
10-49	-0.34*	(0.14)	-0.05	(0.19)
50-199	-0.61***	(0.15)	-0.51*	(0.21)
200-999	-0.32*	(0.16)	-0.22	(0.22)
1000 plus	-0.59***	(0.18)	-0.45	(0.25)
10-49 x Time	-0.01	(0.02)	-0.06	(0.03)
50-199 x Time	-0.02	(0.02)	-0.03	(0.03)
200-999 x Time	-0.04	(0.02)	-0.06	(0.03)
1000 plus x Time	-0.01	(0.03)	-0.03	(0.04)
North East	0.04	(0.30)	0.08	(0.40)
North West	0.42	(0.23)	0.44	(0.31)
Yorkshire and the Humber	0.22	(0.24)	0.09	(0.33)
East Midlands	0.29	(0.24)	0.09	(0.33)
West Midlands	0.14	(0.24)	-0.12	(0.33)
East of England	0.54*	(0.23)	0.42	(0.32)
London	0.18	(0.24)	0.43	(0.32)
South East	0.56*	(0.22)	0.65*	(0.30)
South West	0.48*	(0.23)	0.53	(0.33)
Wales	0.39	(0.25)	0.34	(0.37)
Scotland	0.13	(0.23)	0.18	(0.31)
North East x Time	0.02	(0.04)	0.02	(0.06)
North West x Time	0.02	(0.03)	0.01	(0.05)
Yorkshire and the Humber x	0.05	(0.04)	0.09	(0.05)
Time				
East Midlands x Time	0.05	(0.04)	0.09	(0.05)
West Midlands x Time	0.06	(0.04)	0.10*	(0.05)
East of England x Time	-0.01	(0.03)	0.01	(0.05)

London x Time			0.03	(0.03)	0.01	(0.05)
South East x Time			0.01	(0.03)	0.01	(0.05)
South West x Time			0.06	(0.03)	0.09	(0.05)
Wales x Time			-0.00	(0.04)	0.03	(0.05)
Scotland x Time			0.03	(0.03)	0.04	(0.05)
Autonomy in role: ref is none or very little						
Medium			0.09	(0.14)	0.11	(0.20)
High			0.14	(0.13)	0.13	(0.18)
Medium x Time			-0.01	(0.02)	-0.03	(0.03)
High x Time			-0.03	(0.02)	-0.04	(0.03)
Job class: ref is routine/semi- routine						
Lower supervisory			-1.14 ^{***}	(0.19)	-1.17 ^{***}	(0.27)
Intermediate			-0.48 ^{***}	(0.14)	-0.57 ^{**}	(0.19)
Management/professional			-1.19 ^{***}	(0.13)	-1.23 ^{***}	(0.18)
Lower supervisory x Time			0.04	(0.03)	0.00	(0.05)
Intermediate x Time			-0.01	(0.02)	-0.03	(0.03)
Management/professional x Time			0.01	(0.02)	-0.00	(0.03)
Constant	-2.78 ^{***}	(0.12)	-0.64	(0.45)	-1.34 [*]	(0.63)
Random slope variance	0.05 ^{***}	(0.00)	0.04 ^{***}	(0.00)	0.06 ^{***}	(0.01)
Residual variance	3.57 ^{***}	(0.19)	3.15 ^{***}	(0.17)	3.04 ^{***}	(0.22)
ll	-16317		-15517.6			
aic	32655.17		31195.25		.	
bic	32740.02		31872.37		.	
N	35774.00		35029.00		26989.00	

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

APPENDIX TWO

MODEL 3 STEPWISE MODELS

Changes in homeworking and flexi-time 2010-2019

	Model 3a		Model 3b		Model 3c	
homeflexi						
Time			0.03***	(0.01)	-0.01	(0.01)
Constant	-2.97***	(0.05)	-3.16***	(0.07)	-3.03***	(0.09)
Residual variance	8.50***	(0.37)	8.53***	(0.37)	8.24***	(0.43)
Random slope variance					0.03***	(0.01)
ll	-13734.41		-13723.36		-13693.89	
aic	27472.81		27452.72		27395.78	
bic	27489.78		27478.17		27429.72	
N	35774.00		35774.00		35774.00	

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Changes in homeworking and flexi-time 2010-2019

	Model 3d		Model 3e		Final weighted model 3	
homeflexi						
Time	0.01	(0.02)	-0.25*	(0.12)	-0.16	(0.17)
Gender=1	0.09	(0.16)	0.01	(0.15)	-0.08	(0.19)
Gender=1 x Time	-0.04	(0.02)	-0.03	(0.02)	-0.02	(0.03)
Parent=1	0.40*	(0.16)	0.31	(0.16)	0.32	(0.20)
Parent=1 x Time	0.01	(0.02)	-0.02	(0.02)	-0.02	(0.03)
Gender=1 x Parent=1	-0.15	(0.21)	-0.00	(0.21)	-0.16	(0.26)
Gender=1 x Parent=1 x Time	-0.01	(0.03)	-0.01	(0.03)	0.03	(0.04)
Education: ref is no quals						
GCSE or other qual			0.59	(0.46)	0.49	(0.58)
A Levels			0.88	(0.47)	0.95	(0.58)
Degree			1.08*	(0.46)	0.88	(0.59)
GCSE or other qual x Time			-0.04	(0.07)	0.02	(0.09)
A Levels x Time			-0.04	(0.07)	-0.00	(0.09)
Degree x Time			-0.00	(0.07)	0.08	(0.09)
Carer=1			0.13	(0.14)	0.04	(0.18)
Carer=1 x Time			0.01	(0.02)	0.03	(0.03)
25 to 30			0.10	(0.38)	0.05	(0.57)
31 to 40			0.07	(0.36)	0.20	(0.52)
41 to 50			0.14	(0.35)	0.29	(0.51)
51 to 60			0.30	(0.36)	0.36	(0.51)
61 plus			0.23	(0.50)	0.63	(0.65)
25 to 30 x Time			0.07	(0.09)	-0.01	(0.13)
31 to 40 x Time			0.12	(0.08)	-0.02	(0.12)

41 to 50 x Time	0.11	(0.08)	-0.01	(0.12)
51 to 60 x Time	0.09	(0.08)	-0.02	(0.12)
61 plus x Time	0.05	(0.09)	-0.09	(0.13)
Organisational sector:ref is central govt				
Private	-2.01***	(0.21)	-1.94***	(0.30)
Other Public	-1.55***	(0.33)	-1.31**	(0.43)
Local govt or council	-1.30***	(0.22)	-1.08***	(0.32)
University or gf educ	-1.60***	(0.33)	-1.18**	(0.44)
Health auth or NHS trust	-2.42***	(0.26)	-2.25***	(0.37)
Charity or voluntary	-0.98**	(0.31)	-0.64	(0.40)
Private x Time	0.01	(0.03)	-0.05	(0.04)
Other Public x Time	0.02	(0.05)	-0.09	(0.07)
Local govt or council x Time	-0.01	(0.03)	-0.07	(0.05)
University or gf educ x Time	-0.07	(0.05)	-0.17*	(0.07)
Health auth or NHS trust x Time	-0.07	(0.04)	-0.18**	(0.06)
Charity or voluntary x Time	-0.04	(0.05)	-0.14*	(0.06)
No. of employees in org: ref is less than 10 employees				
10-49	-0.64***	(0.17)	-0.54*	(0.23)
50-199	-0.29	(0.18)	-0.07	(0.24)
200-999	0.31	(0.17)	0.46	(0.24)
1000 plus	0.39*	(0.19)	0.49	(0.26)
10-49 x Time	-0.00	(0.03)	-0.04	(0.04)
50-199 x Time	-0.01	(0.03)	-0.05	(0.04)
200-999 x Time	-0.02	(0.03)	-0.06	(0.04)
1000 plus x Time	0.02	(0.03)	0.01	(0.04)
North East	-0.07	(0.35)	0.14	(0.40)
North West	0.10	(0.27)	0.06	(0.32)
Yorkshire and the Humber	-0.08	(0.29)	-0.24	(0.36)
East Midlands	-0.28	(0.29)	-0.30	(0.35)
West Midlands	0.09	(0.28)	-0.12	(0.34)
East of England	-0.41	(0.28)	-0.54	(0.35)
London	-0.40	(0.27)	-0.58	(0.35)
South East	-0.15	(0.26)	-0.02	(0.31)
South West	0.24	(0.28)	0.43	(0.32)
Wales	0.04	(0.30)	0.21	(0.37)
Scotland	0.01	(0.28)	0.15	(0.32)
North East x Time	0.03	(0.05)	-0.03	(0.06)
North West x Time	0.07	(0.04)	0.03	(0.05)
Yorkshire and the Humber x Time	0.06	(0.04)	0.05	(0.05)
East Midlands x Time	0.10*	(0.04)	0.08	(0.05)
West Midlands x Time	0.06	(0.04)	0.07	(0.05)
East of England x Time	0.11**	(0.04)	0.09	(0.05)
London x Time	0.10*	(0.04)	0.09	(0.05)
South East x Time	0.09*	(0.04)	0.04	(0.05)
South West x Time	0.09*	(0.04)	0.04	(0.05)
Wales x Time	0.07	(0.04)	0.02	(0.06)

Scotland x Time			0.03	(0.04)	-0.00	(0.05)
Autonomy in role: ref is none or very little						
Medium			0.77**	(0.23)	0.70*	(0.31)
High			1.67***	(0.21)	1.52***	(0.27)
Medium x Time			-0.01	(0.04)	-0.02	(0.05)
High x Time			-0.01	(0.03)	0.01	(0.04)
Job class: ref is routine/semi-routine						
Lower supervisory			0.11	(0.27)	-0.13	(0.39)
Intermediate			1.24***	(0.19)	1.02***	(0.26)
Management/professional			0.98***	(0.18)	0.87***	(0.24)
Lower supervisory x Time			0.01	(0.04)	0.00	(0.07)
Intermediate x Time			0.09**	(0.03)	0.12**	(0.04)
Management/professional x Time			0.14***	(0.03)	0.15***	(0.04)
Constant	-3.25***	(0.14)	-3.82***	(0.67)	-3.66***	(0.86)
Random slope variance	0.03***	(0.01)	0.02***	(0.00)	0.04***	(0.01)
Residual variance	8.16***	(0.43)	4.06***	(0.22)	3.64***	(0.28)
ll	-13666		-12446			
aic	27352.56		25052.14		.	
bic	27437.41		25729.25		.	
N	35774.00		35029.00		26989.00	

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

APPENDIX TWO

MODEL 4 STEPWISE MODELS

Changes in reduced hours flexibility 2010-2019

	Model 4a		Model 4b		Model 4c	
rh						
Time			0.04 ^{***}	(0.01)	-0.06 ^{***}	(0.01)
Constant	-2.55 ^{***}	(0.06)	-2.83 ^{***}	(0.07)	-2.68 ^{***}	(0.09)
Variance						
	12.75 ^{***}	(0.55)	12.87 ^{***}	(0.56)	14.83 ^{***}	(0.88)
Variance, random slope					0.14 ^{***}	(0.01)
ll	-15305.09		-15280.05		-15025.50	
aic	30614.17		30566.10		30059.00	
bic	30631.14		30591.55		30092.94	
N	35774.00		35774.00		35774.00	

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Changes in reduced hours flexibility 2010-2019

	Model 4d		Model 4e		Final weighted model 4	
rh						
Time	-0.18 ^{***}	(0.03)	-0.33 ^{***}	(0.10)	-0.31 [*]	(0.14)
Gender=1	1.82 ^{***}	(0.18)	1.70 ^{***}	(0.18)	1.76 ^{***}	(0.23)
Gender=1 x Time	0.25 ^{***}	(0.03)	0.21 ^{***}	(0.03)	0.25 ^{***}	(0.04)
Parent=1	-0.43	(0.23)	-0.12	(0.23)	-0.48	(0.29)
Parent=1 x Time	-0.03	(0.04)	-0.01	(0.04)	0.07	(0.05)
Gender=1 x Parent=1	2.85 ^{***}	(0.26)	2.62 ^{***}	(0.26)	2.63 ^{***}	(0.34)
Gender=1 x Parent=1 x Time	-0.05	(0.04)	-0.03	(0.04)	-0.02	(0.05)
Education: ref is no quals						
GCSE or other qual			-0.03	(0.30)	0.01	(0.39)
A Levels			0.07	(0.32)	0.23	(0.41)
Degree			-0.20	(0.31)	-0.17	(0.41)
GCSE or other qual x Time			0.00	(0.05)	-0.02	(0.06)
A Levels x Time			0.00	(0.05)	-0.03	(0.06)
Degree x Time			0.04	(0.05)	-0.00	(0.06)
Carer=1			0.06	(0.14)	0.22	(0.18)
Carer=1 x Time			-0.00	(0.02)	-0.03	(0.03)
25 to 30			-2.04 ^{***}	(0.31)	-1.67 ^{***}	(0.47)
31 to 40			-1.93 ^{***}	(0.28)	-1.54 ^{***}	(0.39)
41 to 50			-1.86 ^{***}	(0.27)	-1.44 ^{***}	(0.38)
51 to 60			-2.09 ^{***}	(0.28)	-1.92 ^{***}	(0.40)
61 plus			-0.46	(0.38)	-0.25	(0.57)
25 to 30 x Time			0.27 ^{***}	(0.07)	0.20	(0.11)

31 to 40 x Time	0.30 ^{***}	(0.06)	0.26 [*]	(0.10)
41 to 50 x Time	0.30 ^{***}	(0.06)	0.27 ^{**}	(0.10)
51 to 60 x Time	0.39 ^{***}	(0.06)	0.41 ^{***}	(0.10)
61 plus x Time	0.33 ^{***}	(0.07)	0.35 ^{**}	(0.11)
Organisational sector:ref is central govt				
Private	0.08	(0.29)	0.50	(0.37)
Other Public	-0.66	(0.43)	-0.22	(0.54)
Local govt or council	1.13 ^{***}	(0.29)	1.49 ^{***}	(0.39)
University or gf educ	0.63	(0.40)	1.09 [*]	(0.53)
Health auth or NHS trust	0.41	(0.31)	0.80	(0.42)
Charity or voluntary	0.33	(0.39)	0.39	(0.50)
Private x Time	-0.04	(0.04)	-0.08	(0.06)
Other Public x Time	0.08	(0.07)	0.03	(0.09)
Local govt or council x Time	-0.06	(0.05)	-0.12	(0.07)
University or gf educ x Time	0.02	(0.06)	-0.02	(0.08)
Health auth or NHS trust x Time	-0.07	(0.05)	-0.13	(0.07)
Charity or voluntary x Time	-0.00	(0.06)	0.03	(0.08)
No. of employees in org: ref is less than 10 employees				
10-49	-0.24	(0.17)	-0.13	(0.24)
50-199	-0.12	(0.18)	-0.14	(0.25)
200-999	-0.48 [*]	(0.19)	-0.63 [*]	(0.25)
1000 plus	-0.71 ^{**}	(0.22)	-0.76 [*]	(0.31)
10-49 x Time	-0.01	(0.03)	-0.02	(0.04)
50-199 x Time	-0.06 [*]	(0.03)	-0.04	(0.04)
200-999 x Time	-0.04	(0.03)	-0.01	(0.04)
1000 plus x Time	-0.05	(0.03)	-0.03	(0.05)
North East	0.51	(0.36)	0.61	(0.48)
North West	0.90 ^{**}	(0.28)	0.98 ^{**}	(0.34)
Yorkshire and the Humber	0.58 [*]	(0.29)	0.64	(0.37)
East Midlands	0.80 ^{**}	(0.29)	0.71 [*]	(0.36)
West Midlands	0.53	(0.29)	0.42	(0.37)
East of England	1.06 ^{***}	(0.29)	1.00 ^{**}	(0.36)
London	0.71 [*]	(0.29)	1.10 ^{**}	(0.37)
South East	1.05 ^{***}	(0.27)	1.11 ^{**}	(0.35)
South West	1.07 ^{***}	(0.29)	1.18 ^{***}	(0.36)
Wales	0.89 ^{**}	(0.30)	1.18 ^{**}	(0.41)
Scotland	0.49	(0.28)	0.53	(0.36)
North East x Time	-0.02	(0.05)	-0.04	(0.07)
North West x Time	-0.04	(0.04)	-0.05	(0.05)
Yorkshire and the Humber x Time	0.02	(0.04)	0.03	(0.06)
East Midlands x Time	-0.01	(0.04)	0.01	(0.06)
West Midlands x Time	0.02	(0.04)	0.05	(0.06)
East of England x Time	-0.06	(0.04)	-0.03	(0.05)
London x Time	-0.02	(0.04)	-0.08	(0.06)
South East x Time	-0.02	(0.04)	-0.04	(0.05)
South West x Time	-0.00	(0.04)	0.01	(0.06)

Wales x Time			-0.05	(0.04)	-0.06	(0.06)
Scotland x Time			-0.01	(0.04)	-0.01	(0.06)
Autonomy in role: ref is none or very little						
Medium			0.13	(0.17)	0.20	(0.25)
High			0.01	(0.15)	0.03	(0.21)
Medium x Time			-0.03	(0.03)	-0.03	(0.04)
High x Time			-0.05*	(0.02)	-0.05	(0.03)
Job class: ref is routine/semi-routine						
Lower supervisory			-1.23***	(0.24)	-1.02**	(0.34)
Intermediate			-0.89***	(0.16)	-1.00***	(0.23)
Management/professional			-1.61***	(0.16)	-1.58***	(0.21)
Lower supervisory x Time			-0.03	(0.04)	-0.10	(0.06)
Intermediate x Time			-0.03	(0.03)	-0.04	(0.04)
Management/professional x Time			-0.05*	(0.02)	-0.07*	(0.03)
Constant	-3.99***	(0.17)	-1.84***	(0.54)	-2.49***	(0.72)
Random slope variance	0.11***	(0.01)	0.08***	(0.01)	0.09***	(0.01)
Residual variance	6.43***	(0.38)	5.09***	(0.30)	4.87***	(0.39)
Ll	-13702		-12827			
aic	27424.57		25815.91		.	
bic	27509.42		26493.03		.	
N	35774.00		35029.00		26989.00	

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

9.3 Appendix 3

Unpaid work divisions in dual-earner parent couples			
Activity	N couples with a fraction of 0.7 or more	Total couples for whom have complete information	Mainly shared/male
Household care - workday	119	338	35.2%
Childcare - workday	66	258	25.6%
Household care - non-workday	228	422	54.0%
Childcare - non-workday	118	314	37.6%
<p><i>Source: Time Use Survey 2014-2015. Variables were created by dividing fathers' unpaid work by mothers' unpaid work for each item; those couples for whom this variable was 0.7 or more may be viewed as having non-traditional divisions of unpaid work, i.e. mainly shared/mainly male rather than mainly female. Percentages are not weighted.</i></p>			

9.4 Appendix 4

Stepwise models: dual-earner parent couples' division of housework and childcare.
 Multinomial logistic regression. Reference category is traditional divisions of housework and childcare

	(1) Model 1: Controls	(2) Model 2	(3) Model 3	(4) Model 4	(5) Model 5	(6) Final model 6
Class_1						
Age of couple	0.02	0.01	0.01	0.01	0.02	0.01
Age of youngest child	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01
Number of dependent children	-0.29*	-0.29	-0.30	-0.25	-0.22	-0.21
hh1	0.36	0.45	0.47	0.43	0.46	0.48
Mother earns same or more than father	1.02***	1.18***	1.13***	0.94***	0.91***	1.07***
Father GRA	0.12***	0.12***	0.12***	0.11***	0.12***	0.11***
Mother GRA	0.10***	0.10**	0.10**	0.09*	0.08*	0.08*
Father has degree	-0.09	-0.10	-0.08	-0.07	-0.05	-0.05
Mother has degree	0.34	0.28	0.27	0.22	0.21	0.20
Father in prof/managerial role	-0.38*	-0.58**	-0.53*	-0.49*	-0.54*	-0.51*
Mother in prof/managerial role	0.47*	0.50*	0.49*	0.48*	0.48*	0.47*
Father flexi-time		0.58*	0.66**	0.64**	0.64**	0.61*
Mother flexi-time		-0.06	-0.15	-0.13	-0.11	-0.15
Father regular homeworking			-0.46	-0.41	-0.40	-0.42
Mother regular homeworking			0.36	0.40	0.39	0.44
Father part-time				0.86*	0.85*	0.86*
Mother part-time				-0.76***	-0.74**	-0.69**
Father informal flex available					-0.16	-0.19
Mother informal flex available					0.26	0.28
eversemp						-0.82*
sp_eversemp						-0.10
Constant	-1.00	-0.97	-0.99	-0.54	-0.64	-0.61
Class_2						
Age of couple	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00
Age of youngest child	0.07*	0.06	0.06	0.06	0.06	0.06
Number of dependent children	-0.08	-0.17	-0.17	-0.15	-0.16	-0.15
hh1	-0.23	-0.07	-0.04	-0.04	0.02	0.06
Mother earns same or more than father	0.65**	0.75**	0.76**	0.68**	0.61*	0.70**
Father GRA	0.05	0.03	0.03	0.03	0.04	0.03
Mother GRA	0.06*	0.06	0.06	0.06	0.06	0.06

Father has degree	0.09	0.12	0.12	0.12	0.10	0.11
Mother has degree	0.07	0.06	0.07	0.05	0.05	0.06
Father in prof/managerial role	-0.12	-0.09	-0.08	-0.07	-0.05	-0.03
Mother in prof/managerial role	0.22	0.23	0.24	0.24	0.30	0.28
Father flexi-time		-0.05	-0.04	-0.04	-0.03	-0.04
Mother flexi-time		-0.06	-0.01	-0.00	0.10	0.07
Father regular homeworking			-0.02	-0.01	-0.00	0.01
Mother regular homeworking			-0.23	-0.21	-0.16	-0.14
Father part-time				0.52	0.56	0.56
Mother part-time				-0.27	-0.20	-0.19
Father informal flex available					-0.33	-0.33
Mother informal flex available					-0.08	-0.07
eversemp						-0.26
sp_eversemp						-0.57
Constant	-1.14	-0.86	-0.86	-0.71	-0.43	-0.40
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Class_3						
Age of couple	0.01	0.01	0.01	0.01	0.01	0.01
Age of youngest child	0.00	-0.00	-0.00	-0.00	-0.00	-0.00
Number of dependent children	-0.19	-0.20	-0.20	-0.18	-0.16	-0.16
hh1	0.06	0.06	0.12	0.10	0.16	0.18
Mother earns same or more than father	0.33	0.49*	0.50*	0.40	0.37	0.51*
Father GRA	0.06*	0.04	0.04	0.03	0.04	0.04
Mother GRA	0.09**	0.08**	0.08**	0.07*	0.07*	0.07*
Father has degree	0.28	0.32	0.33	0.34	0.35	0.36
Mother has degree	0.21	0.25	0.26	0.24	0.17	0.17
Father in prof/managerial role	-0.08	-0.27	-0.24	-0.22	-0.24	-0.22
Mother in prof/managerial role	0.26	0.23	0.25	0.24	0.28	0.27
Father flexi-time		0.21	0.24	0.24	0.26	0.24
Mother flexi-time		0.23	0.29	0.29	0.35	0.32
Father regular homeworking			-0.15	-0.13	-0.12	-0.13
Mother regular homeworking			-0.21	-0.18	-0.18	-0.14
Father part-time				0.47	0.50	0.50
Mother part-time				-0.42*	-0.39	-0.36
Father informal flex available					-0.21	-0.23
Mother informal flex available					0.09	0.11
eversemp						-0.66*

sp_eversemp						-0.18
Constant	-0.48	-0.56	-0.57	-0.32	-0.25	-0.22
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Class_4						
Age of couple	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01
Age of youngest child	0.03	0.03	0.03	0.03	0.03	0.03
Number of dependent children	-0.16	-0.17	-0.17	-0.16	-0.18	-0.17
hh1	-0.27	-0.23	-0.23	-0.23	-0.21	-0.19
Mother earns same or more than father	0.56**	0.67***	0.66**	0.61**	0.54*	0.68**
Father GRA	0.08***	0.07*	0.07*	0.07*	0.08**	0.07*
Mother GRA	0.09***	0.08**	0.08**	0.08**	0.08*	0.08*
Father has degree	0.30	0.31	0.32	0.32	0.36	0.36
Mother has degree	0.14	0.12	0.12	0.11	0.09	0.08
Father in prof/managerial role	-0.08	-0.17	-0.16	-0.15	-0.14	-0.12
Mother in prof/managerial role	0.16	0.10	0.10	0.09	0.07	0.06
Father flexi-time		0.24	0.26	0.26	0.27	0.24
Mother flexi-time		0.09	0.06	0.06	0.08	0.06
Father regular homeworking			-0.11	-0.11	-0.12	-0.13
Mother regular homeworking			0.15	0.17	0.18	0.23
Father part-time				0.33	0.36	0.35
Mother part-time				-0.16	-0.17	-0.13
Father informal flex available					-0.07	-0.09
Mother informal flex available					0.17	0.19
eversemp						-0.67*
sp_eversemp						-0.09
Constant	0.10	0.06	0.05	0.13	0.03	0.06
<hr/>						
Class_6						
Age of couple	0.05*	0.08*	0.08*	0.08*	0.08*	0.08*
Age of youngest child	-0.05	-0.07	-0.07	-0.07	-0.08	-0.08
Number of dependent children	0.17	0.24	0.24	0.25	0.23	0.24
hh1	-0.89	-0.92	-1.01	-0.95	-0.86	-0.88
Mother earns same or more than father	0.20	0.06	0.04	-0.02	-0.03	-0.09
Father GRA	-0.03	-0.02	-0.02	-0.02	-0.02	-0.02
Mother GRA	-0.02	-0.03	-0.03	-0.03	-0.03	-0.03
Father has degree	0.07	-0.03	-0.05	-0.10	-0.11	-0.12
Mother has degree	0.38	0.39	0.36	0.31	0.23	0.22
Father in prof/managerial role	-0.19	-0.28	-0.32	-0.31	-0.39	-0.42
Mother in prof/managerial role	-0.51	-0.35	-0.39	-0.36	-0.29	-0.28
Father flexi-time		0.40	0.38	0.35	0.36	0.37

Mother flexi-time		-0.22	-0.32	-0.35	-0.32	-0.31
Father regular homeworking			0.15	0.16	0.08	0.07
Mother regular homeworking			0.44	0.45	0.49	0.46
Father part-time				1.06	1.05*	1.05*
Mother part-time				0.29	0.36	0.35
Father informal flex available					-0.05	-0.04
Mother informal flex available					0.18	0.18
eversemp						0.18
sp_eversemp						0.28
Constant	-3.21***	-4.18***	-4.20***	-4.53***	-4.58***	-4.66***
N	3134.00	2656.00	2656.00	2656.00	2557.00	2557.00

The dependent variable is the six latent classes of unpaid work with the base category being Class 5, the largest traditional class. Models are weighted.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Comparing model fit in the stepwise models						
Models	1	2	3	4	5	6 (Final)
aic	10406.2	8726.1	8726.8	8693.8	8392.6	8387
bic	10768.9	9137.3	9196.8	9222.5	8976.1	9028.9
ll	-5143.1	-4293	-4283.4	-4256.9	-4096.3	-4083.5
N	3118	2628	2628	2628	2529	2529
Pseudo R Squared	0.0458	0.0493	0.0514	0.0573	0.0578	0.0607
<i>Note: fit statistics are calculated on the unweighted models.</i>						

Final model 6: goodness-of-fit test for multinomial logistic regression (Hosmer-Lemeshow)	
Dependent variable: classes of unpaid work of couples	
Number of observations = 2527	
Number of outcome values = 6	
Base outcome value = 5	
Number of groups = 10	
Chi-squared statistic = 42.532	
Degrees of freedom = 40	
Prob > chi-squared = 0.363	

9.5 Appendix 5

Household level variables only, dual-earner parent couples' division of housework and childcare. Multinomial logistic regression. Reference category is traditional divisions of housework and childcare

	(1)				
	Latent classes of couples' unpaid work				
	Class_1	Class_2	Class_3	Class_4	Class_6
Age of couple	0.01 (0.02)	-0.01 (0.02)	0.01 (0.02)	-0.01 (0.02)	0.08* (0.03)
Age of youngest child	-0.01 (0.04)	0.06 (0.04)	-0.00 (0.03)	0.03 (0.03)	-0.08 (0.05)
Number of dependent children	-0.25 (0.16)	-0.18 (0.14)	-0.18 (0.13)	-0.20 (0.13)	0.23 (0.19)
In top decile of household earnings	0.37 (0.34)	-0.01 (0.35)	0.11 (0.32)	-0.25 (0.31)	-0.96 (0.88)
Relative earnings: Mother earns same or more than father	ref. 1.12*** (0.25)	ref. 0.73** (0.26)	ref. 0.54* (0.23)	ref. 0.72** (0.22)	ref. -0.08 (0.41)
Gender role attitudes of couple:					
Father more NT	0.49 (0.27)	-0.10 (0.27)	0.17 (0.25)	0.42 (0.24)	-0.27 (0.38)
Mother more NT	0.06 (0.33)	0.14 (0.30)	0.16 (0.29)	0.37 (0.27)	-0.34 (0.40)
Both NT	1.02*** (0.26)	0.33 (0.25)	0.45 (0.24)	0.69** (0.23)	-0.42 (0.39)
Education of couple:					
Mother degree.	0.08 (0.29)	-0.12 (0.31)	0.09 (0.26)	-0.12 (0.25)	0.10 (0.41)
Father degree.	-0.22 (0.36)	-0.14 (0.33)	0.25 (0.30)	0.13 (0.27)	-0.27 (0.48)
Both degree	0.18 (0.28)	0.20 (0.29)	0.55* (0.28)	0.47 (0.26)	0.14 (0.41)
Job class of couple					
Mother prof.	0.21 (0.31)	0.10 (0.34)	0.12 (0.31)	0.02 (0.30)	-0.53 (0.43)
Father prof.	-0.81* (0.35)	-0.18 (0.29)	-0.36 (0.28)	-0.17 (0.27)	-0.56 (0.42)
Both prof.	-0.07	0.26	0.07	-0.03	-0.67

Regular home working: ref is neither parents use it	(0.27) ref.	(0.30) ref.	(0.28) ref.	(0.27) ref.	(0.45) ref.
Mother homework	0.29 (0.33)	-0.19 (0.36)	-0.21 (0.34)	0.25 (0.30)	0.22 (0.51)
Father homework	-0.54 (0.34)	0.01 (0.30)	-0.17 (0.27)	-0.07 (0.27)	-0.11 (0.52)
Both homework	0.22 (0.48)	-0.14 (0.62)	-0.16 (0.51)	0.03 (0.48)	0.80 (0.66)
Use of flexi-time: ref is neither	ref.	ref.	ref.	ref.	ref.
Mother flexi-time	-0.13 (0.27)	-0.05 (0.30)	0.40 (0.26)	-0.04 (0.25)	-0.22 (0.38)
Father flexi-time	0.65* (0.28)	-0.24 (0.32)	0.36 (0.26)	0.15 (0.28)	0.39 (0.41)
Both flexi-time	0.45 (0.41)	0.30 (0.41)	0.46 (0.42)	0.43 (0.39)	-0.03 (0.68)
Part-time working: ref is neither	ref.	ref.	ref.	ref.	ref.
Mother part-time	-0.67** (0.24)	-0.18 (0.24)	-0.40 (0.21)	-0.16 (0.21)	0.41 (0.41)
Father part-time	1.39 (0.97)	0.88 (1.03)	0.48 (0.99)	0.67 (0.98)	1.64 (1.53)
Both part-time	-0.18 (0.39)	0.21 (0.50)	0.11 (0.41)	0.04 (0.41)	1.26* (0.59)
Self-employment: ref is neither	ref.	ref.	ref.	ref.	ref.
Mother self employed	-0.23 (0.43)	-0.56 (0.44)	-0.36 (0.34)	-0.26 (0.32)	0.34 (0.55)
Father self employed	-0.85* (0.36)	-0.23 (0.36)	-0.73* (0.36)	-0.76* (0.32)	0.20 (0.43)
Both self employed	-0.86 (0.90)	-0.98 (0.75)	-0.54 (0.66)	-0.49 (0.61)	0.31 (0.89)
Informal flexibility: ref is neither	ref.	ref.	ref.	ref.	ref.
Mother informal	-0.15 (0.55)	-0.49 (0.50)	0.18 (0.51)	0.23 (0.55)	-0.14 (0.71)
Father informal	-0.63 (0.54)	-0.73 (0.48)	-0.15 (0.49)	-0.04 (0.52)	-0.31 (0.69)
Both informal	-0.16 (0.48)	-0.64 (0.43)	-0.05 (0.46)	0.16 (0.51)	-0.05 (0.60)
Constant	-0.41 (0.88)	0.07 (0.83)	-0.29 (0.81)	-0.06 (0.78)	-4.11** (1.33)
N	2557.00				

Standard errors in parentheses

The dependent variable is the six latent classes of unpaid work with the base category being Class 5, the largest traditional class. Class 1 are parents who share both childcare and housework, Class 2 share the childcare only,

Classes 3 and 4 have some sharing of the housework and childcare, Class 6 has traditional divisions with extreme amounts of housework for the mother. All variables are at the household level

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

9.6 Appendix 6

Appendix 7.pdf - Adobe Acrobat Reader DC (32-bit)

File Edit View Sign Window Help

Home Tools

Appendix 7.pdf x



Call for participants

Research on managing paid work with caring responsibilities

- Would you like to take part in research about managing paid work with caring responsibilities?
- Do you live in Scotland?
- Do you have at least one child under the age of 16?
- Are you part of a mixed-sex couple where both mother and father spend time in paid work?

Participants will receive a shopping voucher as a thank you, and reasonable travel expenses will be reimbursed.

If you're interested, we would like to hear from you!

What's involved?

Participation will involve a one-to-one discussion with a PhD student from the University of Manchester. At this discussion you will be asked to share your experiences of combining paid work with the caring responsibilities you have at home. We are interested to hear the views of both men and women, particularly fathers, those in non-managerial jobs and the self-employed. We would also like to speak to Black and minority ethnic people.

The discussion will last up to 1 hour and can take place at a time and place convenient for you such as in a local café or over the telephone.

Your involvement in the research will help contribute to understandings about how parents share care and how this impacts their working lives and is an important part of closing Scotland's gender pay gap.

If you would like to take part or if you have any questions, please contact Joanna Wilson on 07784 875221 or email joanna.wilson-2@manchester.ac.uk.



Type here to search



9.7 Appendix 7

Research on managing paid work with caring responsibilities

Participant Information Sheet (PIS)

This PIS should be read in conjunction with [The University privacy notice](#).

You are being invited to take part in a research study as part of Joanna Wilson's PhD in Social Statistics. Before you decide whether to take part, it is important for you to understand why the research is being conducted and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Please ask if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part. Thank you for taking the time to read this.

Who will conduct the research?

Joanna Wilson, PhD student, Social Statistics, School of Social Sciences, Humanities Bridgeford Street, Manchester, M13 9PL.

What is the purpose of the research?

To investigate your experiences of combining paid work with the caring responsibilities you have at home. Your involvement in the research will help contribute to understandings about how parents share care and how this impacts their working lives.

The Economic and Social Research Council funds Joanna Wilson's PhD research which Close the Gap also supports. Close the Gap is a charity funded by the Scottish Government which works with organisations to help close the gender pay gap (www.closesthegap.org.uk).

Why have I been chosen?

You have been chosen because you meet the requirements for this study: i.e. you live in Scotland, are in a couple where both parents are in paid work and have at least 1 child under the age of 16. Approximately 40 other participants will be involved in the study.

What would I be asked to do if I took part?

This study is split into two parts. One part involves participation in a group discussion (focus group) with approximately 6 to 10 other people. The other part involves participation in a one-to-one interview with the researcher (Joanna Wilson). This participation information sheet relates to your involvement in the interview.

The interview is intended to be an informal discussion during which the researcher will ask you about the paid and unpaid work that you do during a typical working week and how this interacts with the paid and unpaid work that your partner does. The discussion may involve, but is not limited to: the age and needs of your child(ren); your and your partner's job characteristics such as number of hours or opportunities to work flexibly; other caring responsibilities you may have; your attitudes

towards gender roles such as who in a couple should take responsibility for earning money and who should look after the children.

You will be asked to be as open as possible during the interview however you are able to refuse to answer any questions with which you are not comfortable.

What will happen to my personal information?

In order to undertake the research project we will need to collect the following personal information/data about you:

- Name
- Home postcode area
- Age group
- Occupational group
- Whether you are a home owner
- Age of your children
- Your income group
- Your household income group

Personal information may also be revealed during the interview such as details regarding your job characteristics or your children.

The discussions will be recorded using a University of Manchester encrypted digital recording device. These recordings will be voice-only recordings and will be transcribed by a University of Manchester approved transcriber. Only the research team (i.e. Joanna Wilson and her academic supervisors) and the University-approved transcriber will have access to the audio recordings.

We are collecting and storing this personal information in accordance with the General Data Protection Regulation (GDPR) and Data Protection Act 2018 which legislate to protect your personal information. The legal basis upon which we are using your personal information is “public interest task” and “for research purposes” if sensitive information is collected. For more information about the way we process your personal information and comply with data protection law please see our [Privacy Notice for Research Participants](#).

The University of Manchester, as Data Controller for this project, takes responsibility for the protection of the personal information that this study is collecting about you. In order to comply with the legal obligations to protect your personal data the University has safeguards in place such as policies and procedures. All researchers are appropriately trained and your data will be looked after in the following way:

The study team (i.e. Joanna Wilson and her academic supervisors) at the University of Manchester and their approved transcriber will have access to your personal identifiable information, that is data which could identify you, but they will anonymise it during transcription via the use of a pseudonym. This will involve de-identifying the data and linking it via an assigned participant ID only known to research team (also referred to pseudonymised or coded data). This will ensuring the reporting of the data is done in such a way that you cannot be readily identified.

In line with the University's Research Data Management Policy and their Records Retention Schedule, the audio recordings will be retained until a minimum of 5 years after publication. Your signed consent form and contact details will also be retained for a minimum of 5 years after publication (kept separately in a locked cupboard in a secure room accessible only by the researcher). The anonymised transcribed audio data will be deposited in the UK Data Service's repository to be shared with other researchers; further information regarding this is included below under the heading "Will my data be used for future research?"

The audio from the interview will be recorded on a University of Manchester encrypted voice recorder. Before sending audio recordings and transcripts that contain personal or sensitive information to a transcriber, files will be encrypted. Data will be anonymised through the use of pseudonyms during transcription. The recordings and transcriptions will then be stored on a University of Manchester secure drive which is backed up by the University. No data will be stored on laptops or external storage devices. Any manual data (consent forms, demographic questionnaires, field notes) will be kept separately in a locked cupboard in a secure room accessible by only the lead researcher.

You have a number of rights under data protection law regarding your personal information. For example you can request a copy of the information we hold about you, including audio recordings. This is known as a Subject Access Request. If you would like to know more about your different rights, please consult our [privacy notice for research](#) and if you wish to contact us about your data protection rights, please email dataprotection@manchester.ac.uk or write to The Information Governance Office, Christie Building, University of Manchester, Oxford Road, M13 9PL. at the University and we will guide you through the process of exercising your rights.

You also have a right to complain to the [Information Commissioner's Office](#), Tel 0303 123 1113

Will my participation in the study be confidential?

Your participation in the study will be kept confidential to the study team and those with access to your personal information as listed above. However, there may be circumstances in which we may need to inform/disclose information to individuals outside of the research team. This would include:

- Individuals from the University, the site where the research is taking place and regulatory authorities who may need to review the study information for auditing and monitoring purposes or in the event of an incident.
- The reporting of current/future illegal activities to the authorities

What happens if I do not want to take part or if I change my mind?

It is up to you to decide whether or not to take part. If you do decide to take part you will be given this information sheet to keep and be asked to sign a consent form. If you decide to take part you are still free to withdraw at any time without giving a reason and without detriment to yourself. However, it will not be possible to remove your data from the project once it has been anonymised and forms part of the dataset as we will not be able to identify your specific data. This does not affect your data protection rights.

The audio recording of the interview is essential to your participation in the study therefore if you are not comfortable for your discussions to be recorded as part of this you should decline to participate in the interview.

Will my data be used for future research?

This research project is funded by the Economic and Social Research Council (ESRC) whose guidelines encourage the sharing of any research data generated with other researchers providing that confidentiality (through the use of pseudonyms) will be protected. It is therefore intended that the transcribed audio data will be made available to other researchers via the UK Data Service's website.

As mentioned above, the data from the interview will be anonymised by removing all personal information that could directly identify you and confidentiality will be protected. Anonymisation is a valuable tool that allows data to be shared, whilst preserving privacy. The process of anonymising data requires that identifiers are changed in some way such as being removed, substituted, distorted, generalised or aggregated. A person's identity can be disclosed from: direct identifiers (e.g. names or postcodes) or indirect identifiers which, when linked with other available information, could identify someone, for example information on workplace, occupation, salary or age.

In anonymising your data the researchers will follow guidelines to ensure that your identity is protected and that the context of the data is retained as far as possible. For example, in an audio transcript a person's name is replaced with a pseudonym or with a tag that typifies the person [farmer Bob, paternal grandmother, council employee]. This is also done when reference is made to other identifiable people. An exact geographical location may be replaced with a meaningful descriptive term that typifies the location [southern part of town, near the local river, a moorland farm, his native village].

Will I be paid for participating in the research?

A small token of gratitude for your participation will be offered in the form of a Love to Shop shopping voucher to the value of £30. Reasonable travel expenses to and from the interview location, if applicable, will also be reimbursed.

What is the duration of the research?

The interview will last approximately 1 hour. You will need to allow at least 10 minutes before the start of the discussion to allow completion of the necessary consent forms.

Where will the research be conducted?

The interview can take place in a location convenient to you, for example, your home location or a public meeting place such as a local cafe.

Will the outcomes of the research be published?

The research data will be presented in Joanna Wilson's PhD thesis. It is also intended to publish the research findings as articles in academic journals and via a briefing paper which will be available on Close the Gap's website. Copies of any published articles or reports can be provided to you on request.

Who has reviewed the research project?

This project has been reviewed by the University of Manchester, School of Social Science Ethics Committee.

What if I want to make a complaint?

Minor complaints

If you have a minor complaint then you need to contact the researcher's supervisor in the first instance.

Professor Wendy Olsen, University of Manchester, Social Statistics, Humanities Bridgeford Street, Oxford Road, Manchester. M13 9PL. wendy.olsen@manchester.ac.uk, 0161 275 3043

Formal Complaints

If you wish to make a formal complaint or if you are not satisfied with the response you have gained from the researchers in the first instance then please contact

The Research Governance and Integrity Manager, Research Office, Christie Building, University of Manchester, Oxford Road, Manchester, M13 9PL, by emailing: research.complaints@manchester.ac.uk or by telephoning 0161 275 2674.

What Do I Do Now?

If you have any queries about the study or if you are interested in taking part then please contact the researcher(s):

JOANNA WILSON, Joanna.wilson-2@manchester.ac.uk, 07784 875221

This Project Has Been Approved by the University of Manchester's Research Ethics Committee [ERM reference number:2018-4996-7816]

Version 3 (23.07.2019)

Research on managing paid work with caring responsibilities

Consent form for interview

Having read the Participant Information Sheet (PIS), if you are happy to participate please complete and sign the consent form below:

	Activities	Initials
1	I confirm that I have read the attached information sheet (Version 3, 23/07/2019) for the above study and have had the opportunity to consider the information and ask questions and had these answered satisfactorily.	
2	I understand that my participation in the study is voluntary and that I am free to withdraw at any time without giving a reason and without detriment to myself. I understand that it will not be possible to remove my data from the project once it has been anonymised and forms part of the data set. I agree to take part on this basis.	
3	I agree to the interview being audio recorded.	
4	I agree that any data collected may be published in anonymous form in academic books, reports or journals.	
5	I agree that any data collected may be shared on an anonymous basis with other researchers via the UK Data Service's website for the purposes of future research.	
6	I understand that there may be instances where, during the course of the interview, information is revealed which means that the researchers will be obliged to break confidentiality and this has been explained in more detail in the information sheet.	
7	I agree to take part in this study	

Data Protection

The personal information we collect and use to conduct this research will be processed in accordance with data protection law as explained in the Participant Information Sheet and the [Privacy Notice for Research Participants](#).

Name of Participant

Signature

Date

Joanna Wilson

Name of the person taking consent

Signature

Date

[Original to be retained by the research team with a copy retained by the participant]

9.9 Appendix 9

Semi-structured interview plan, Participant Number/Pseudonym: _____

Intro checklist

1. Refreshments
2. My background and background to the research if not previously explained.
3. Check their understanding of participant information sheet and consent form. Obtain signature on consent form (two copies). Pass hard copies of PIS and consent form for their records if required by them.
4. Agree use of any pseudonyms, e.g. for name of employer etc.
5. Admin re travel expenses, if applicable – ask for receipts (take photo?)
6. Ask to be as open as possible, remind can refuse to answer questions not comfortable with and can withdraw from the study, although not after transcription.
7. Refer to Working Families Scotland helpline, ACAS (examples only) for emotive issues.
8. Ask questions to complete demographic info checklist (see info below).

Demographic information - to be asked in short checklist once consent form signed

- Home postcode area
- Year of birth (or age group if preferred: 18-24/25-34/35-44/45-54/55-64/65+)
- Job/Employed or Self Employed or occupational group if preferred (Management & professional/Intermediate/Small employers & own account/ Lower supervisory & technical/ Semi-routine & routine)
- Home owner (yes or no)
- Age(s) of children

*******Start audio recording*******

Notes

Aim to bring out factors at the work and household level that affect the paid and unpaid work of mothers or fathers in the household. Such as:

- Workplace characteristics and type of flexibility used (e.g. formal, informal, self-employed, none) and examples of how it helps/does not help.
- Approximate hours spent in paid and unpaid work. Aim to bring out start and finish times in paid work, any housework and childcare performed/child interaction, travel to and from work, evening work etc. E.g. where have to travel to other locations, work away from home overnight, care for sick children or attendance at school events, work in evenings etc.
- How reached agreement about division of paid and unpaid work.
- Perceptions of work- life balance
- Other caring responsibilities, probe about the mental load

Example questions

- Please can you take me through a typical working day for you?
- What about non-typical working days?
- Tell me about your childcare arrangements.

Close of interview

Anything would like to add that we've not already talked about?

Thanks for your time, **give voucher as token of thanks – as them to initial on the form that they've received the voucher**

9.10 Appendix 10

Extract from NVivo node framework

PHD analysis 2 October 2019.nvp - NVivo 12 Plus

Name	Files	References	Created On
Mental load		9	14 11/06/2019
Being off duty		3	3 04/10/2019
Constantly on call		2	2 04/10/2019
Onus		3	5 07/10/2019
Stress		5	6 04/10/2019
The minutae		2	3 02/10/2019
The thinking the remembering		4	5 02/10/2019
Vision		3	9 20/06/2019
Integration of work and home		3	5 10/06/2019
Decisions		11	24 10/06/2019
Merging, blurring, balancing, juggling		10	16 02/10/2019
Juggling between couple - the reality		8	19 11/06/2019
Conflict		1	2 10/10/2019
Doing too much		3	5 07/10/2019
Drop offs pick ups		10	14 07/10/2019
Holding it together		7	13 20/06/2019
How manage		12	19 02/10/2019
Ships in the night and tag teams		6	6 07/10/2019
Through the summer		5	7 07/10/2019
When childcare is not rigid		2	2 07/10/2019
When have to look outside couple for help		4	6 07/10/2019
When partner doesn't adapt		4	6 07/10/2019
Who is the default		7	12 07/10/2019
Working in the evenings or days off		6	13 07/10/2019

JRW 263 Items