Government
Equalities Office

Return to work: parental decision making

Research report

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Contents

List of figures

List of tables

Executive summary

Despite progress towards greater gender equality, significant inequalities persist in the way that childcare responsibilities are divided up and shared, with women in the UK doing on average about twice as much childcare as men. This disparity contributes to gender gaps in both employment and earnings, with women being substantially disadvantaged relative to men. For example, in April to June 2017, 91.7% of fathers aged 25-34 were in work compared to just 67.7% of mothers (ONS, 2017d). The Government Equalities Office (GEO) seeks to promote gender equality across society in the UK, with a focus on closing the Gender Pay Gap. The Behavioural Insights Team (BIT) carried out this project for GEO with two main aims:

1. To understand parental decision-making about the sharing of childcare responsibilities and return to work.
2. To design testable interventions to encourage parents to equalise (or move closer to equalising) the gender balance of work and childcare responsibilities, in particular by motivating fathers to take a more active caring role.

To answer these questions, we conducted a literature review of the key drivers of parental decision making; in-depth interviews with thirteen couples in the UK who were first-time parents; an analysis of the 2014/15 UK Time Use Survey on time spent on childcare by men and women in the UK; and two online experiments designed to test potential solutions for encouraging parents to share parental leave and childcare responsibilities more equally.

Key findings: drivers of parental decision making

Based on the literature review and the interviews, the project identified six key categories of factors that influence parental decision making:

- **Implicit decision-making**: Couples often make decisions about the division of childcare and return to work without explicit discussion or negotiation, despite these decisions having a substantial impact on both parents' lives.
- **Financial factors**: Many couples experience a strong financial incentive for the mother to take on a bigger share of childcare responsibilities. This is because women tend to earn less than their partners, and most employers offer enhanced maternity pay but not enhanced Shared Parental Pay. At the same time, couples tend to disregard or not be aware of the long-term cost to mothers of taking time out of the labour market.
- **Work-related factors:** Parents' engagement with their employer can influence how they choose to divide childcare responsibilities. Parents often lack a clear understanding of Shared Parental Leave (SPL) eligibility rules, and are not aware that it is a legal entitlement for eligible parents. Parents may also see flexible working and parental leave as being acceptable for women, but not for men.

- **Emotional factors:** Parents are influenced by concerns about their child's safety and guilt (a particular issue for mothers), which often result in a strong preference for home childcare. Further, loss aversion, which is the sensitivity that people have to losing something and which can be felt quite keenly, discourages some women from 'giving up' leave and time with their child to their partner to accommodate SPL.
- **Social factors:** People are strongly influenced by the behaviour and expectations of those around them, and parents use these behaviours and expectations as cues to guide their own decisions regarding childcare and return to work.
- **Attitudes:** The relationship between attitudes regarding gender roles and behaviours is often not straightforward due to multiple external factors.

To illustrate the interplay between the different factors, we constructed a typology of couples based on the interviews. The typology describes couples whose decision making is driven either by their attitudes or by external factors and provides a conceptual tool for policy makers when thinking about how to drive behaviour change among new parents.

Key findings from online experiments

The first experiment tested whether different behaviourally informed messages increase behaviours related to more equal sharing of childcare among prospective fathers - namely the father's interest in and stated intention whether they would take up SPL or flexible working. We found that:

- Overall, behaviourally informed messages did not increase fathers' interest in SPL and flexible working.
- However, behavioural messages increased engagement (as measured by willingness to read more information) as well as stated intentions to take SPL among men who already had children, while decreasing them among those who did not yet have children.

The second experiment tested whether providing simplified information about SPL increases prospective parents' understanding of the scheme and their stated willingness to use it, compared to standard government communications. We found that:

- Providing prospective and current parents with simplified information about SPL improved parents' comprehension of the scheme.
- Highlighting SPL as a legal entitlement for eligible parents improved parents' comprehension of the scheme and also reduced the perceived effort related to taking up the scheme.

Our findings point to the importance of providing clear and user-friendly information, but also finding other, more radical ways to encourage parents to consider sharing childcare responsibilities in a more equal way.

1. Introduction

1.1 Women in the labour market

Despite progress in women's employment rates and earnings, there are still significant gaps between men and women. In early 2017, 79.5% of men were in work compared to 70.4% of women (ONS, 2017a). The employment gap begins at ages associated with having children and is strikingly large for parents of younger children. For example, in April to June 2017, 91.7% of fathers aged 25-34 were in work compared to just 67.7% of mothers (ONS, 2017d).

Differences in pay also persist, with working women earning about 18% less per hour than working men (ONS, 2016a).[1] Like the gap in employment rates between men and women, the gender pay gap increases sharply after women have their first child, reflecting both lower employment rates and slower in-work progression compared to men (Dias, Elming, & Joyce, 2016). The hourly wages of women who return to paid work are about 2% lower for each year they were out of employment - and 4% lower per year for women with A-Levels or above (Dias, Elming, & Joyce, 2016).

Overall, gender gaps in both employment and earnings are influenced by persisting inequalities in caring responsibilities between men and women, with women still taking on a larger portion of those responsibilities. These gaps are associated with actions related to caring responsibilities: lengthy withdrawals from the labour market, as well as an increase in part-time work and flexible working, which are in turn associated with a significant pay penalty in most sectors (Goldin, 2014; Olsen, Gash, Vandecasteele, Walthery & Heuvelman, 2010; Manning & Petrongolo, 2008).

Addressing this issue would allow more women to fulfil their career potential. According to a recent survey, 53% of non-working mothers agreed they would return to work if they could arrange good quality childcare (Huskinson et al., 2016). Ensuring that working parents are in jobs that match their skillsets, and that valuable skills are not lost through additional time spent out of the labour market, can also boost national productivity. According to the OECD, greater female labour supply would add considerably to economic growth and could raise UK GDP by 10% by 2030 (OECD, 2014).

[1] This number relates to gap between the median gross hourly earnings of women compared to men in the UK in 2016. It includes both full time and part time workers.

1.2 Importance of fathers' involvement

Mothers with small children are more likely to work when formal childcare is available and affordable, and this is particularly the case for mothers at the bottom of the income distribution, for single mothers and those with lower education levels (Del Boca, 2015). This suggests that childcare policies are key in encouraging mothers to work. A number of government policies such as Shared Parental Leave (SPL)[2] and Tax-Free Childcare[3] are already in place to support a more equal sharing of childcare responsibilities and help women return to work. Where childcare policies are not achieving this purpose, as well as in the case of higher income mothers who are less influenced by economic childcare policies, increasing paternal involvement becomes a key factor.

Further, many parents have a preference for home childcare when their child is very young. Thus, even if formal childcare becomes more accessible, parents' strong preference for home care in the early years will continue to necessitate one parent remaining at home during this period. The challenge is to persuade more fathers to assume this role.

Research has also shown that increased involvement from fathers at an early stage is beneficial for not only the child, but also the father, as well as the parents' relationship. Early paternal involvement has been shown to have a positive impact on the child's IQ, emotional IQ, educational outcomes, career success, mental and physical health and overall happiness in the future (Allen & Dally, 2007). Evidence suggests that fathers being more involved in the care of their child is associated with greater marital stability (Cowan & Cowan, 1992) and greater marital satisfaction in midlife (Snarey, 1993). Involved fathers are also more satisfied with their lives (Eggebean & Knoester, 2001), feel less psychological distress (Barnett, Marshall, & Pleck, 1992), report less substance abuse, experience fewer hospital admissions and are less likely to die from accidental and premature deaths (Pleck, 1997). In the long term, there even seems to be a modest, positive impact on work and career success (Pleck & Masciadrelli, 2004).

In sum, to move towards a more equal division of childcare between the parents, and to reap the benefits this has for both individuals and society, more fathers will need to change their behaviour and request SPL or change to a more flexible working pattern.

1.3 Project aims

Deciding which parent should stay at home and how much time the working parent spends with the child are complex decisions that are influenced by a number of factors, including financial considerations, as well as emotions, attitudes, social norms and workplace culture. A behavioural insights approach, which combines the application of

[2] Shared Parental Leave enables parents to share up to 50 weeks of leave.
[3] Tax-Free Childcare can provide parents with up to £2000 government support per child per year towards their childcare costs.

insights from behavioural science and an evaluation of their impact, offers a framework and methodology to uncover which of these factors are most determinant for different couples, as well as how to support and encourage parents to share childcare more equally.

The Government Equalities Office (GEO) commissioned the Behavioural Insights Team (BIT) to conduct a research project to understand parental decision-making regarding the sharing of childcare responsibilities and return to work. The aim of the project was two-fold:

1. To understand parental decision-making about the sharing of childcare responsibilities and return to work.
2. To design testable interventions to encourage parents to equalise (or move closer to equalising) the gender balance of work and childcare responsibilities, in particular by motivating fathers to take a more active caring role.

In this report, 'the division of childcare' refers to both the relative proportion of time that each parent spends on childcare, and the proportion of parental leave that each parent takes.

1.4 Project methodology

BIT's projects are run based on the T.E.S.T. methodology which structures a project around four key phases: Target, Explore, Solution and Trial. In this project, the Target phase consisted of defining the target population and target behaviours together with GEO. The Explore phase was designed to give us an in-depth understanding of the target behaviour and the contextual factors that influence it. In this phase, we used a combination of a literature review, quantitative data analysis and qualitative interviews to map out the dynamics and drivers of parental decision making regarding the division of childcare responsibilities.

The findings from the quantitative data analysis are presented in Chapter 2, showing how education, income, and fathers' working patterns are related to the division of childcare. Chapter 3 describes the qualitative research methodology and research questions which were informed by the literature review. The findings from the qualitative research are presented in Chapter 4, combined with a review of relevant literature. The findings highlight six key categories of factors that influence parental decision making. We also propose a theoretical typology of parental decision makers to illustrate the interplay between the different factors.

In Chapter 5, we apply behavioural science to each of the five factors and propose solutions that could be tested and applied to achieve a more equal division of childcare. We then take some of these solutions and test them in two online experiments, presented in Chapter 6. The report ends with general conclusions on how to encourage a more equal division of childcare and support women to return to work in Chapter 7.

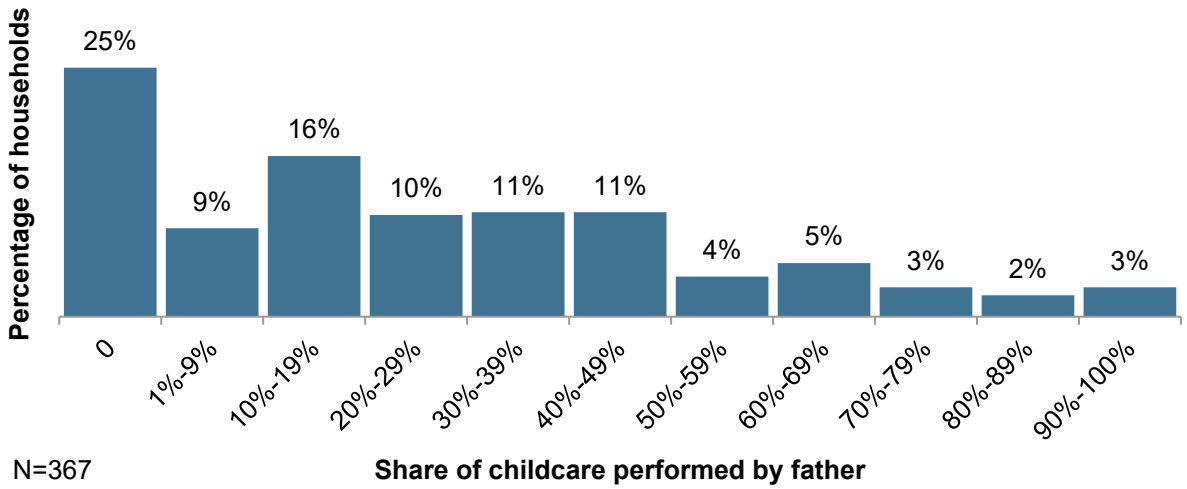
2. The gendered division of childcare responsibilities

To help set the scene for the research conducted in this project, we examined data related to time spent on childcare by men and women in the UK. This was important to identify both the magnitude as well as any possible predictors of the gap. Since no recent analysis of these patterns was available, we analysed data from the 2014/15 UK Time Use Survey which is the most recent and detailed survey capturing the time use of people in the UK. In this part, we present findings from analysis using a sample of heterosexual couples aged 20-55. The figures in this section include parents with children aged 16 and under. Full details of the analysis, as well as the gendered division of total household work (all tasks including childcare), can be found in Appendix 1.

Women do on average 74% of childcare on weekdays, regardless of the number of children in the household or the age of the children (which means that men do on average 26%).[4] Figure 1 illustrates the share of childcare performed by fathers in households where the youngest child is under 5. In a quarter of these households, men spend no time at all on childcare during weekdays. In just over a quarter of households men do 50% or more of the childcare.

According to BIT analysis, women continue to do at least twice as much childcare as men irrespective of household income, education, or employment type within the couple, which is consistent with previous findings (Craig & Mullan, 2011). In the next section we report how the share of childcare performed by fathers differs according to these demographics and find that most differences are either small or merely directional (not statistically significant).

Figure 1 Distribution of households in which the youngest child is under 5, by the share of weekday childcare performed by fathers



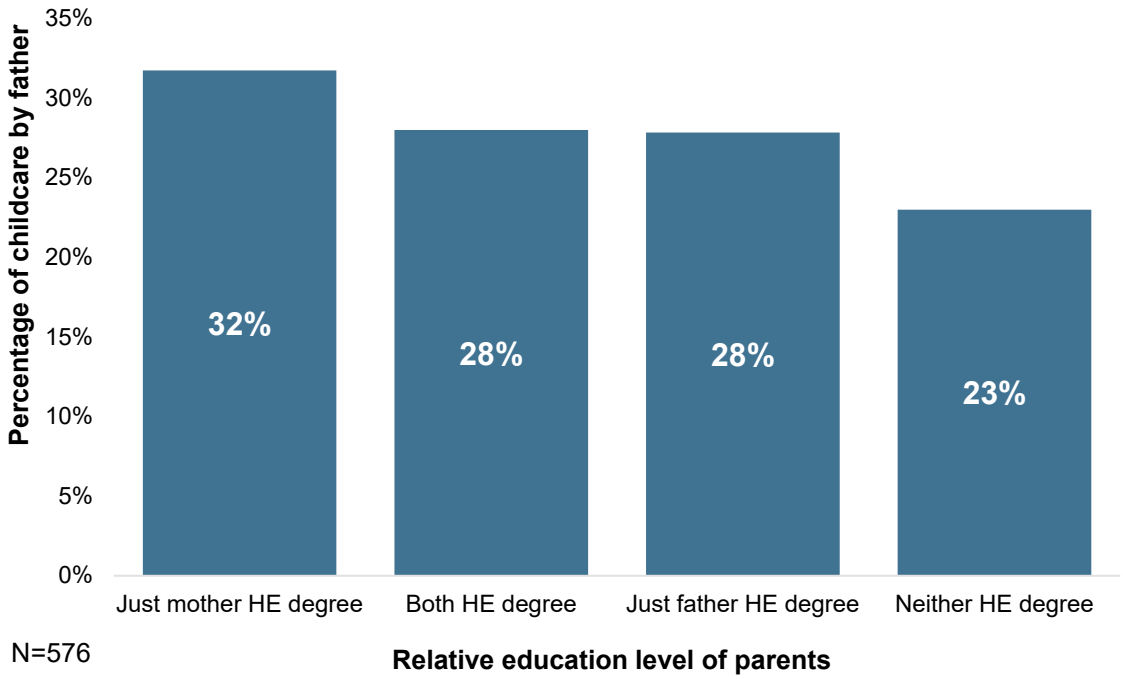
[4] See column 1 of regression table in Appendix 1.

2.1 Relative education influences the division of childcare

The relative education levels of parents seem to play a role in the division of childcare. Figure 2 presents the share of childcare performed by the father for different combinations of parental education. In households where only the mother has a higher education degree, fathers perform 32% of childcare. Fathers do a lower share of childcare (23%) in households where neither parent has a higher education degree.[5] The remaining differences in the figure are merely directional (not statistically significant).[6]

One possible explanation for the higher share of childcare done by fathers in households where only the mother has a higher education degree might be women's increased bargaining power in these households (see discussion of bargaining power in section 4.2). Higher education is also associated with more egalitarian attitudes (Bolzendahl & Myers, 2004; Davis & Greenstein, 2009), which have in turn been associated with a more equal division of childcare (Schober, 2011).

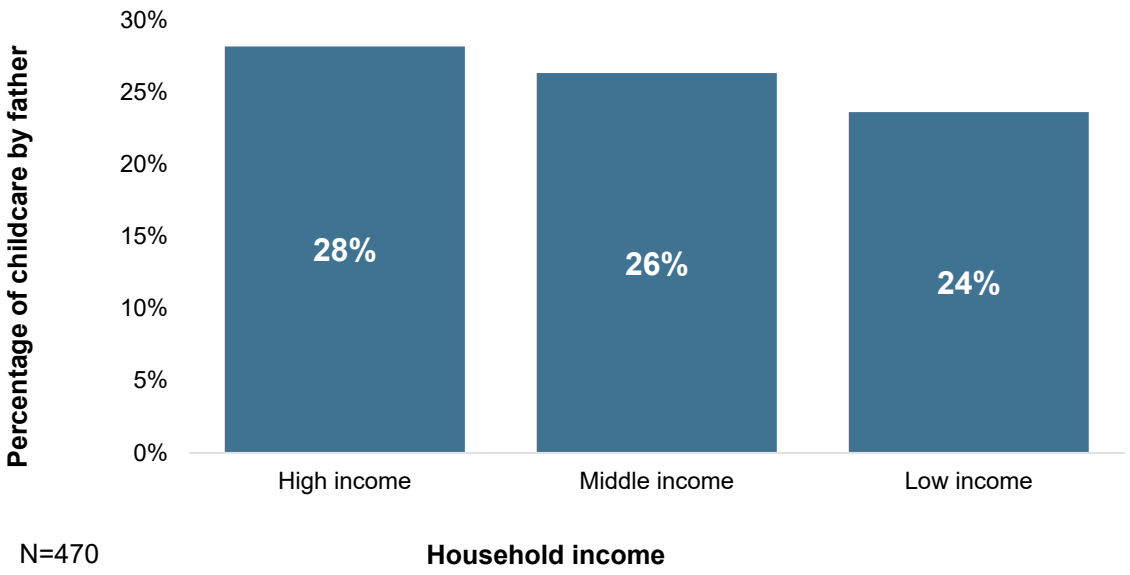
Figure 2 Share of weekday childcare performed by fathers, by education level of parents



[5] Note that these differences hold when controlling for: the age of the eldest in the household, the number of children, the age of the youngest child, and the income of the household and the parents' working hours. The rest of the differences are directional but not statistically significant.
[6] The full regression can be found in Appendix 1 (columns 1-2).

Total (combined) household income is only directionally associated with higher paternal involvement. Figure 3 reports fathers' contribution to childcare by household income groups.[7] Differences between the catagories reported in the figure are not statistically significant.[8] Also, the average time men spend on childcare (between 47-52 minutes per day) does not vary much by household income.

Figure 3 Share of weekday childcare performed by fathers, by household income



2.2 Fathers' working patterns are related to the division of childcare

Working fathers tend to contribute more to childcare when they work part-time or flexibly, compared to when they work full-time, though even in these cases mothers still do the majority of childcare. Figure 4 presents the share of childcare performed by the father during weekdays by parental working patterns.

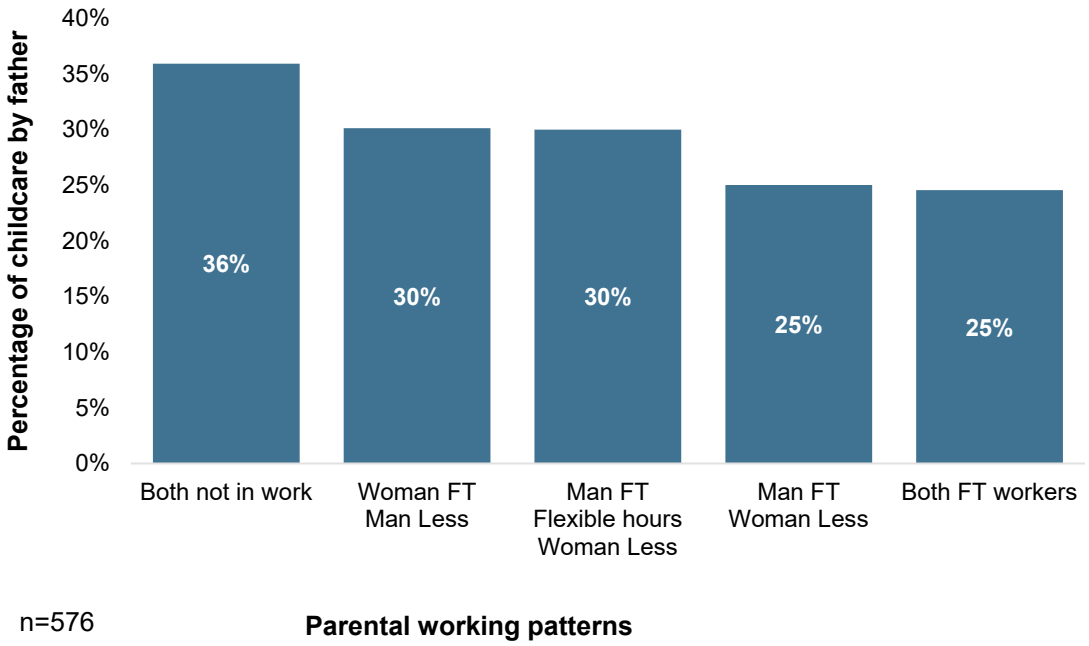
The lowest share of childcare performed by the father (25%) is in households where the father works full-time and the mother works either full-time or less. Compared to these two categories:

[7] The groups were calculated based on equivalised household income and the sample was split into three even groups. We used OECD scales on the total monthly household income (including tax credits). The calculation was performed on the total sample of couples (with and without children).
[8] The full regression can be found in regression table in Appendix 1 (columns 2-3).

- Fathers do a higher proportion of childcare in households where the father works full time, but with flexible working options and in which the mother works less than full time.[9] In these households fathers do on average 30% of childcare.[10]
- Fathers do a higher proportion of childcare (also 30%) when the mother works full-time and the father works less than full-time. However this category is very small both in the population and in the survey sample. Consequently, the difference between these households and those in which men work full-time, is merely directional.
- Fathers do a higher proportion of childcare (36%) when both they and their partner are not in work.[11]

Overall, this pattern is in line with an analysis of the British Household Panel Survey data from 1992-1998, in which men's occupation (blue collar occupations in particular) and non-standard contracts were found to be associated with those fathers conducting higher shares of childcare relative to other fathers (Ramos, 2005).

Figure 4 Share of childcare performed by fathers, by parental working patterns



[9] By 'less than full time' we mean working part-time or not at all.
[10] The difference compared to households in which men work full time is statistically significant at p<0.05.
[11] The difference compared to households in which men work full time is statistically significant at p<0.05.

3. Qualitative research questions and methodology

3.1 Target population

To maximise the number of possible pathways through which we could achieve potential for change, this project considered the behaviour of both mothers and fathers. Specifically, our qualitative research focused on couples where the mother was working at least part-time before having the child, and had not had significant spells of unemployment (longer than 6 months) in the two years before having a child. This was to avoid conflating the impact of maternity leave on the mother's labour market outcomes with a weak attachment to the labour market.

The qualitative research also focused on parents with only one child to understand how parents make decisions about the division of childcare in the absence of precedents of decision making with previous children. Based on ONS birth data, around 300,000 children are born to new parents each year (ONS, 2016b). This means that an intervention targeting this group would still have significant reach and potential for impact.

3.2 Research design

To understand how parents make decisions about childcare responsibilities and returning to work, we conducted a small scale qualitative study interviewing thirteen heterosexual couples who were first-time parents. We interviewed couples with children aged between 1 and 2.5 years, on the grounds that parents of younger children may not have settled on a division of labour, while parents of older children would not have recalled their decision making process as readily.

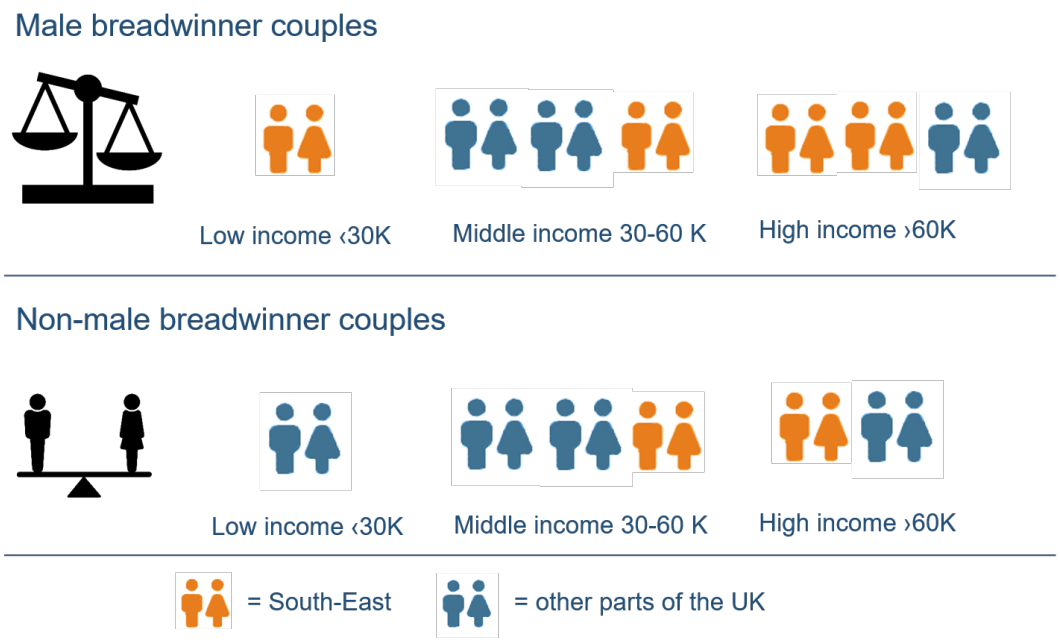
Rather than aim for a sample that was representative of all first-time parents in the UK, our goal was to achieve sufficient variation in household characteristics to address our research questions. We focused on three main sampling criteria - household income, family earning model and geographic location - to generate variation in the sample. Full details on the sample can be found in Appendix 2. Figures 5 and 6 provide an overview of the couples we interviewed.

The interview questions were based on a literature review (presented in Chapter 4 alongside the qualitative research findings). The literature review revealed that parental decision-making is influenced not only by financial factors but also a range of psychological factors - social, attitudinal and emotional. We designed the interview questions to confirm these factors but also to provide a picture of how they interact in different household – something that existing research does not cover. We also wanted to expand on existing evidence by focusing on the decision-making process within the couple. In particular, we wanted the interviews to answer the following research questions:

1. What are the main features of parental decision-making about the division of childcare? In particular:
    - How and when is the decision made?
    - How do the partners feel about this process?
    - What are the assumptions and social comparisons used to support the decision?
2. What factors do parents consider to be the key drivers of their decision about the division of childcare? In particular:
    - Which factors seem to foster an equal division of childcare responsibilities?
    - What are the perceived barriers to an equal division of childcare responsibilities?

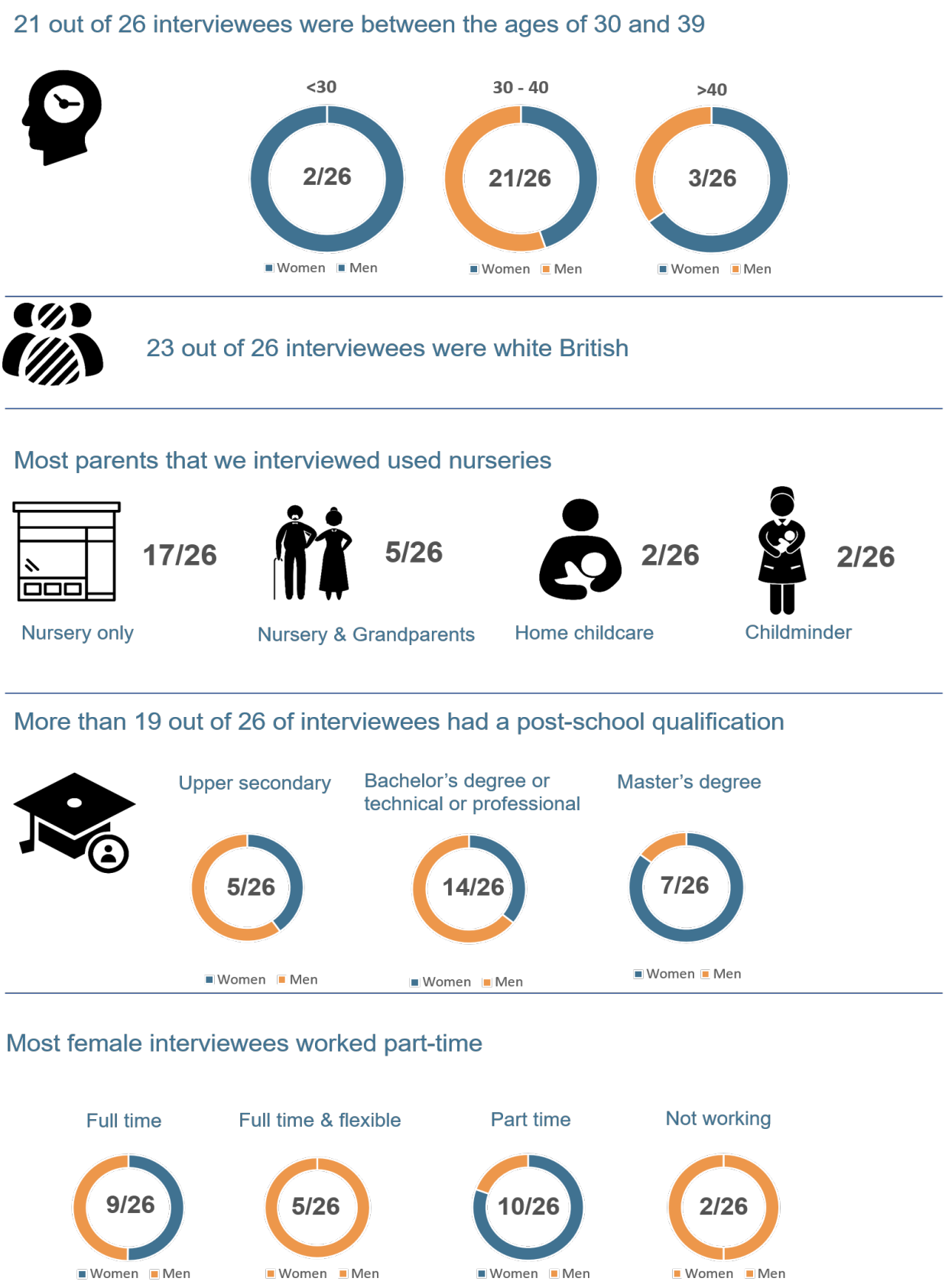
We intereviewed most participants over the phone[12], interviewing the mother and father separately to ensure we captured their unique perspectives. The complete interview guide can be found in Appendix 2.

Figure 5 Interviewee characteristics: sampling criteria



[12] In the end, we interviewed two couples in person, and eleven couples over the phone.

Figure 6 Other interviewee characteristics



3.3 Limitations

Our qualitative research was based on interviews with a small sample of 13 couples, i.e. 26 participants. As described earlier, our aim was not to create a fully representative sample of first-time parents in the UK. Instead, we used sampling criteria to introduce systematic variation in order to obtain interview data from couples with different family earning models, household incomes and geographic locations. This enabled us to detect patterns of differences along these three criteria, but it means we also need to be careful about generalising to the wider population.

A further limitation is the possibility of selection bias. Since the research participants were willing to be interviewed about gender and childcare, they may have been more interested in or informed about the topic than the general population. This is an additional reason to be cautious when drawing conclusions based on the sample.

Further, the responses of participants could have been influenced by social desirability bias (the tendency to answer questions in a way that will be viewed favorably by others, such as the interviewer), or a reluctance to disclose sensitive issues. To mitigate the risk of social desirability bias, all participants were interviewed by an interviewer of the same sex which has been shown to reduce socially desirable responding (Liu & Stainback, 2013). Moreover, most participants were interviewed over the phone which has been shown to make interviewees feel more comfortable responding to sensitive questions (Jäckle, Roberts & Lynn, 2006).

Finally, this study does not cover the decision-making of self-employed or unemployed parents, same-sex parents, parents who do not live together, or parents who have more than one child. Further, our sample only included two low-income households. We are therefore limited in our ability to say anything about these groups.

4. Parental decision making: dynamics and drivers

In this chapter we present the findings from our fieldwork alongside a review of the literature on how parents make decisions (the dynamics) and the factors that influence these decisions (the drivers).

4.1 The dynamics of decision making: reliance on implicit decision making

Couples rarely discuss household decisions explicitly (Sillars and Kalbflesch, 1989), and in terms of our focus, this is borne out in decisions about childcare and work responsibilities (Rijken & Knijn, 2009; Wiesmann, 2010). Parents typically reach an agreement about the division of labour without debate. The agreement may be based on individual preferences ('I prefer cooking' or 'I enjoy my job'), or it may reflect social comparisons (the couple's impression of their peers' behaviour) or the couple's attitudes towards gender (Wiesmann, 2010).

The extent to which parents rely on implicit decision-making rather than a more explicit process depends, in part, on whether their attitudes align with social expectations. For some, the broader social expectation that mothers will assume the bulk of caring responsibilities is consistent with their personal beliefs. Since there is no conflict to resolve, a decision can be reached implicitly (Rijken & Knijn, 2009). Other parents need to explicitly discuss how to reconcile social expectations with their more egalitarian attitudes (Wiesmann, 2010).

Our findings align with the literature. Virtually none of the couples we interviewed explicitly discussed the division of childcare and work responsibilities. One father told us: 'It wasn't that we sat down and planned it, it just fell more into a pattern' (Father, Halifax, MB[13]. Another referred to the decision-making process as being 'organic' (Mother, Wigan, MB). Rather than discussing the overall division of responsibilities, parents usually discussed day-to-day issues as they arose.

Our interviews allowed us to understand how couples make collective decisions. However, our findings on within-household decision-making are consistent with the 'dual process' model of how individuals make judgements and decisions (summarised in Table 3). When we face a choice, System 1 (the intuitive system) can make a quick judgement based on the minimal information at hand. However, this quick and instinctive response can be overruled by System 2 (the reflective system) and a judgement can be made in a slower, more deliberative manner that incorporates more information. However, since

[13] The codes refer to the family earning model: MB - the 'male breadwinner' model where the man is working full-time and the woman is working part-time or less (including not at all); NB - the 'non-male breadwinner' model where either the woman is the main breadwinner or both partners are working full-time (e.g. dual-earner model).

System 2 is slow and effortful (or 'cognitively depleting'), in many situations we prefer to use the System 1 judgment instead of engaging System 2 (Kahneman, 2011). People use System 1 even for the most significant life decisions, including decisions about education, pension savings and end-of-life choices (BIT, 2014; Halpern et al. 2013). People rely on cognitive shortcuts of System 1 in particular when making decisions under high cognitive load when cognitive resources are under strain for example due to dealing with a new situation, having to take in a lot of new information, as well as mental and physical fatigue (Mullainathan & Shafir, 2013).

Table 1 Dual-process theory

System 1 (intuitive)	Characterised by fast and effortless processing of information based on what is available in the immediate context (including implicit or explicit memories of previous behaviour). System 1 thinking often involves the use of heuristics – mental shortcuts (or 'rules of thumb') that tend to focus on a very limited number of aspects of a complex problem.
System 2 (reflective)	Characterised by logical and effortful processing of a wider range of information. In addition to sufficient information, people need cognitive and emotional capacity to make fully informed and appropriate decisions in complex situations.

The way household decisions are made has real consequences for the gender balance of work and childcare responsibilities. Parents relying on implicit decision-making are less likely to critically reflect on their options - in the language of the dual process model, they are relying more on System 1 and are less likely to engage System 2. This dynamic means that decisions about childcare are heavily influenced by easily available, implicit heuristics, such as social norms around mothers as primary carers.

4.2 Drivers of parental decision making

Many factors influence how parents divide childcare responsibilities. A review of evidence by academics, research institutions and governmental bodies suggests that parents' decision making is shaped by four factors: financial, attitudinal, social, and emotional. In addition, workplace factors (such as employer policies or attitudes) emerged as a key influence in our fieldwork interviews. In this part, we present the findings from our fieldwork in relation to these factors alongside a review of the literature.

Although we interviewed the mother and the father from each couple separately to analyse how their views differed, couples tended to have a shared narrative of how and why they divided their work and childcare responsibilities. While responses occasionally differed in terms of the level of detail and the order of factors cited, partners did not offer fundamentally different views. This probably reflects the fact that most couples made an implicit decision and were exposed to the same social norms due to similar social connections, as well as the fact that people with similar attitudes and beliefs are likely to form couples.

Financial factors

Financial considerations are commonly cited as the main influence on UK couples' decisions around the division of childcare responsibilities. However, our interviews suggest that the relationship between a couple's financial situation and their 'family earning model'[14] is not uniform. Rather than directly shaping the division of responsibilities, a couple's financial situation determines the breadth of options available to them.

In low and middle income households, the high cost of formal childcare often leads to one parent choosing to stay home to provide care (IPPR, 2014). High income couples can outsource childcare more easily (Risman, 2011). One father explained: 'We make reasonable money and can afford to pay for full-time childcare [and work full-time]' (Father, Kettering, NB). At the same time, they can more readily afford for one parent to stay at home (Usdansky, 2011). Some parents may construe home childcare by a parent as a luxury good - a marker of status that middle and low income couples aspire to emulate.

Relative income and bargaining power

Relative income has been important in explaining the division of childcare responsibilities in many countries, including the United States, Australia and Germany. Specifically, a mother earning more than her partner before the birth of their child has generally been associated with a more equal division of labour (Bittman,England, Sayer, Folbre & Matheson, 2003; Schober, 2011). This may reflect that women with a higher income (relative to their male partner) have more scope than women with lower income to negotiate the division of labour: more education and a higher income equate to these higher-income women being in a more secure economic position in case of relationship breakdown, giving these women greater bargaining power within the household (Schober, 2011).

[14] By family earning model we mean either the 'male breadwinner' model where the man is working full-time and the woman is working part-time or less (including not at all), or the 'non-male breadwinner' model where either the woman is the main breadwinner or both partners are working full-time (e.g. dual-earner model).

Research has found no link between relative income and the division of childcare responsibilities in the UK (Schober, 2011). This can potentially be explained by the UK's generous maternity leave scheme, coupled with a limited paternity leave entitlement and a minimal culture of fathers working flexibly (Schober, 2011). These factors create a powerful financial incentive for mothers, rather than fathers, to reduce their work hours and assume caring responsibilities. Somewhat counterintuitively, mothers who earn more than their partners may also stay home to compensate for the 'gender deviance' associated with this income disparity (Bertrand, Kamenica & Pan , 2015). For instance, one mother who earned more than her husband before having children told us: 'It was fair [for me to] drop my hours, and I was still bringing the same amount of money into our house [as my partner]'.

In our sample, 'non-male breadwinner' couples (i.e. dual-earners or female breadwinners) had a higher share of women who earned more than (or the same as) their partners before having children. This suggests that if a woman earns more, the couple may be more likely to adopt a non-male breadwinner model where the work and childcare responsibilities are shared more equally. Most of the couples we interviewed also gave financial reasons to explain why the mother had been the one to reduce her work hours. One mother told us: 'My husband earns more … that's why I went part-time' (Mother, Wigan, MB). In other words, in our small sample, we found examples of couples where mother earned more and felt this justified her reducing her hours, as well as couples where the mother earned less and felt this meant they should reduce their hours. A larger study would be needed to determine how prevalent these dynamics are in the population.

The dynamics of relative income may be less influential for low income couples. For these couples, a small pay disparity between partners and lower job specialisation (jobs being more substitutable within the couple) can mean it matters less which parent does a greater share of work vs. childcare, thereby allowing for the father to assume a bigger childcare role (Usdansky, 2011). However, we did not find any examples of this situation in our sample, possibly because our sample only had two low income couples.

Short and long term implications

Behavioural science literature suggests that, alongside other types of System 1 thinking, people's decisions are often influenced by present bias. This bias describes our preferences for immediate value and our tendency to discount any future value (i.e. we prefer a reward sooner rather than later) (Thaler, 1981). Furthermore, present bias gives rise to a phenomenon that behavioural economists call 'hyperbolic discounting' which is the effect where the preference for a sooner rather than later reward is much higher when those possible rewards are closer to the present (Laibson, 1997). Evidence shows that hyperbolic discounting influences people's consumer choices, employment decisions, health behaviours, and educational achievement (Urminsky & Zauberman, 2016). The role of present bias in couples' decision-making has, however, been under-researched.

Most couples that we interviewed focussed on their short-term financial situation, without explicitly considering the long-term implications at all or discounting them. For example, it is not clear that couples considered the effects of their decision on longer term outcomes such as maternal salary progression or pension savings. These long-term implications may have been less salient than the short-term costs of childcare or the immediate challenges of having to negotiate new work or family arrangements. One father told us: 'We just wanted to make sure that we were all right at the moment' (Father, Cornwall, MB). A mother similarly reported: 'What we can do at the moment is just do what we need to do now' (Mother, Milton Keynes, MBI)' and another highlighted their focus on the immediate situation: 'To be honest I could only think about [my child] (Mother, Wigan, MB5fMB).'

In general, couples tended to discount the costs to mothers when asked about the role of long-term implications on their decision making. A father told us: 'We weren't immediately concerned about her career prospect in the position she was doing, whereas with mine we would have been very concerned, because at the time I wasn't the Director' (Father, Kettering, NB).

Given women's lower employment rates and earnings, a focus on short term consequences may in fact improve a couple's long-term financial position. Men still tend to earn marginally more than women, even prior to the arrival of the first child (10% on average (Dias, Elming, & Joyce, 2016). As a result, the financial benefits that accrue to a working mother may not fully offset the cost of her partner reducing his involvement in work. Furthermore, fathers currently enjoy a 'fatherhood bonus', that is, they earn about 20% more than similar men without dependent children (Cory & Stirling, 2016). At the same time, women suffer from a 'motherhood penalty', i.e. the pay gap between working mothers and similar women without dependent children which is estimated to be 11% (IPPR, 2014).

Work related factors

Impact on fathers' behaviour

A more equal division of childcare responsibilities is easier when the father works part-time or flexible hours. All employees in the UK have a legal right to request flexible working. Parents who meet certain eligibility requirements can also access Shared Parental Leave.[15] Fathers' engagement with their employer can influence whether they pursue these options. Qualitative studies have shown that fathers can feel barred from flexible working because their managers tend to perceive them as breadwinners and associate flexible working with women (Gatrell, Burnett, Cooper, & Sparrow , 2014). One

[15] After a woman's required 2 weeks off, maternity leave can be stopped and SPL can begin. For the next 50 weeks, parents can decide how to split childcare.

mother explained: ‘Men are still expected to work full-time. There are less part-time roles for them to enable them to take up and do more of the childcare’ (Mother, London, NB).

Couples who had adopted the male breadwinner model occasionally justified their decision by reference to the untested assumption that the father cannot work flexibly. One mother told us: ‘I don’t think his boss would have agreed to it’ (Mother, Milton Keynes, MB). This may be an instance of hindsight bias where knowledge about the final outcome influences how we report and interpret events (Fischoff, 2003).

In our sample, fathers in non-male breadwinner couples tended to work flexibly (compressed hours, part-time etc.). Even in these cases, however, it was very rare for fathers to work less than their partner. In fact, the only fathers who did work fewer hours than their partners were compelled to do so by some external influence, such as a pre-existing commitment to study or an unplanned redundancy. In the case of redundancy, some fathers ended up doing more of the childcare as the redundancy led them to look for a job that was more flexible and easily combined with childcare.

Impact on mothers’ behaviour

Employer policies or practices (whether perceived or real) can impose a barrier on women who wish to return to work. For example, some employers are not supportive of mothers who wish to continue breastfeeding at work (EHRC, 2015). There are no specific legal rights for breastfeeding women in the workplace. Several parents that we interviewed identified breastfeeding as a factor in their decisions about how to share childcare and work responsibilities.

Where these barriers related to employer policies and practices were not overwhelming, the mother’s aspiration for work fulfillment led some couples to adopt a non-male breadwinner model. Women in these couples wanted to return to full-time work, irrespective of their partner‘s working pattern. As one mother told us: ‘As much as I wanted a family and a child, I didn’t really want to lose the job satisfaction that I get’ (Mother, Kettering, NB). Another said: ‘I think it’s good for a mother to work. I felt that it was important for me to work to continue my career as well as having the sanity for myself’ (Mother, Cornwall, NB).

Emotional factors

Guilt

According to UK survey research, 90% of mothers have felt guilty about childcare at some point, and one in five women reported feeling guilty all the time (NUK, 2013). Literature suggests that guilt stems mostly from the conflict between work and family, the role strain between being a mother and a career woman, and the gap between mothers’ perceptions of themselves and the idealised views of mothers who can ‘do it all’ (i.e. the ‘motherhood myth’) (Rotkirch & Janhunen, 2009).

Previous studies have suggested a gender-based ‘guilt gap’ where men seem less prone to feeling this kind of guilt (Hays, 1996). Interestingly, some recent evidence shows that instead of feeling guilty about not being at home with their children, men actually feel guilty about staying at home (Martinez, Carrasco, Aza, Blanco & Espinar , 2011). One classic study highlights these gender differences: 85% of women reported feeling guilty about combining work and childcare, compared to 0% of men. At the same time, only 30% of women felt successful in combining childcare, work and marriage, compared to 90% of men (Simon, 1995).

Other emotions related to parenthood have been even less researched than guilt. For instance, parental fear and worry over the child’s safety are mainly covered in clinical literature in relation to parental anxiety. Yet, they probably also influence parental decision-making regarding the length of parental leave and the division of childcare responsibilities. For example, worrying about the child’s safety can drive ‘maternal gatekeeping’, which is the tendency to discourage the father’s involvement in childcare (Cannon et al. 2008).

The emotions most frequently cited in our interviews, overwhelmingly by mothers, were guilt and concerns about their child’s safety.

Mother, Wigan,MB: ‘Guilt is a big one, and I imagine that’s everybody’s first emotion and sadness because you miss them. I felt guilty you know, in the first few months if I had gone out for a swim or a coffee on my own. You do feel guilty going back to work, and you feel guilty leaving them with someone, because inevitably they cry and they don’t know what’s going on. It crushes you and you think am I doing the right thing, you know should I be staying. Equally, I felt guilty in going back to work and thinking should I be here more often and am I letting my colleagues down.’

Emotions and preference for home childcare

Guilt was closely related to a strong preference for home childcare which was universal among our interviewees. This preference for having a parent stay at home for several years is more embedded in the UK than elsewhere in the developed world (Craig & Mullan, 2011). The preference for home childcare may be particularly acute when children are very young. Many parents are uncomfortable putting children in formal childcare before the ages of 2 or 3 (PACEY, 2016).

The strength of their emotional attachment to their children took some women by surprise. Some were compelled to defer their planned return to work. One mother said: ‘I was adamant at first that I would go back full-time and then once the reality of having a child, everything was very different’ (Mother, Wigan,MB). A father similarly described his partner’s emotional response:

‘Before she was born, she was actually planning six months. After probably only a month or two of having [child] around, it was definitely an emotional decision. We didn’t want to

leave her with nurseries or childcare, so we stretched it out as far as we possibly could' (Father, Halifax, MB).

The fathers we interviewed did not experience the same emotional impulse to spend more time at home. In fact, no father in our sample spontaneously decided to increase his childcare responsibilities during his partner's maternity leave.

Loss aversion and Shared Parental Leave

Many couples in our sample did not opt for SPL because the mothers disliked the idea of giving up some of their maternity leave. In line with loss aversion, which is a behavioural tendency to experience losses more strongly than equivalent gains (Kahneman & Tversky, 1979), mothers wanted to avoid losing maternity leave more than they wanted to realise the benefits that might be gained from their partner taking leave.

Mother, London,NB: 'In terms of splitting parental leave, I saw my maternity leave as mine and I wouldn't want to give anything to [partner's name], which is probably a bit mean. But it's my year with my baby. I think he should be entitled to his year, whatever time that is, but it's when you start splitting it someone has got to lose. I couldn't have gone back to work any earlier because it would mean having less time with [child's name]. But then I think that [partner's name] should have that time with [child's name], but I don't see why I should have to give up my time.'

Pre-commitment can help overcome emotional barriers

Couples that had made a strong commitment to share childcare responsibilities, and engaged in forward planning to support these plans, tended not to change their decision when faced with unexpected emotions. In fact, the only couples who took up SPL were those that committed to do so ahead of the birth. One mother noted: 'The decision had already been made and it would have been very unfair on me to have been in a situation where I went no, I'm emotionally connected to this child and you can't have the time off' (Mother, Leeds, NB).

In sum, although less prominent than financial and work related factors, emotions play a crucial role in parental decision-making. Most prominently, parental attachment leads to a strong preference for home childcare, and guilt can cause women to defer their return to work. Maternal attachment also manifests itself in the loss aversion towards giving up maternity leave entitlement to fathers via SPL. In our interviews, however, emotions were less determinative where the couple had committed to a particular division of responsibilities before the birth of their child.

Social factors

Social norms

Research indicates that social norms regarding gender roles, work and childcare responsibilities, and norms regarding how intensive parenting should be, are strong

predictors of the division of childcare (Craig & Mullan, 2011). People are heavily influenced by what other people do - by so-called 'descriptive' social norms that describe the general behaviour of other people (Cialdini & Trost, 1998). Social norms tend to matter more when people face a new and unfamiliar situation (Cialdini, 2001) or are under cognitive strain (Melnyk, van Herpen, Fischer, & van Trijp, 2011). First-time parents might follow the behaviour of their peers because they are experiencing cognitive overload (i.e. exhaustion of mental capacities (Fiske & Taylor, 2013) as a result of new information, choices and emotions.

Consistent with existing evidence, there was a consensus amongst the parents that we interviewed that the prevailing social norm is for mothers to have primary responsibility for childcare. Interviewees tended to agree that complying with this norm means mothers exhausting their maternity leave and returning to work on a part-time basis. The routine involvement of fathers in childcare was still considered complementary to the mother's care. One mother explained: 'I think certain attitudes are still present in society, and people still expect women to take on the majority of the childcare. I hear all the time that I'm going to go out in the evening and the dad is going to babysit, but it's not really babysitting; it's parenting' (Mother, Halifax, MB).

Some parents noted that social expectations are changing, with more mothers pursuing their careers and fathers becoming more involved. One mother noted: 'I think maybe in younger couples, the fathers get more involved now, so I think it is probably changing but changing quite slowly' (Mother, Bristol,NB). In contrast, other parents tended to emphasise the historical continuity of the male-breadwinner model.

Reference groups

According to research literature, while social norms affect everyone, the men and women compare themselves to different reference groups when looking for what behaviour to follow. Most women compare themselves to their female friends (Himsel & Goldberg, 2003), while only 'egalitarian' women take their husbands as a social comparison point (Buunk, Kluwer, Schuurman, & Siero, 2000). At the same time, men are unlikely to compare their involvement in childcare to that of their partner, instead comparing themselves to the 'average dad' or their own father (Himsel & Goldberg, 2003).

Parents we interviewed unequivocally and universally agreed that amongst the couples they knew, including friends, colleagues and peers from antenatal classes, women take the majority of parental leave and are the most likely to reduce their work hours long-term. The vast majority did not know anyone who had taken SPL. One mother said: 'I just followed what everyone at my place of work had done in the past, and obviously with his employer, the two weeks was the statutory requirement; yes, we just followed suit' (Mother, Kettering,NB).

According to the parents, female acquaintances of theirs tended to return to work part-time or, if they could afford to, remain at home. Although most parents knew at least one

woman who had resumed full-time work, none were able to think of a case where a father had returned to work part-time while his partner worked full-time. One mother said: ‘Probably 90% of the people that I know the mother either stays at home or doesn’t work at all and looks after the children or works part time’ (Mother, Halifax,MB). Another explained: ‘Mostly, among my friends, it’s the mother that will be the carer or the one who goes part-time to work, whereas the father will stay full-time’ (Mother, Kettering, NB).

Interestingly, we found little difference in couples’ social circles based on their attitudes or family earning model. In other words, non-male breadwinners tended to be outliers even amongst their own acquaintances. These couples were much more likely to dismiss social influence on their decision-making and took pride in doing things ‘their way’. One father said: ‘I think all of our decisions have come from our own thoughts. I think it probably was more of the two of us, and it’s not like there was anyone who had gone there before us’ (Father, Leeds,NB).

Some couples were influenced by the example set by their own parents. Male breadwinners were less likely to acknowledge that they were explicitly guided by the example set by their parents, instead they referred to ‘the way they were brought up’ to justify their division of childcare.

Mother, Portsmouth, MB: ‘But she did still predominantly all because they're both Indian, traditional sort of. She called it "Miss" kind of responsibilities and all of that. And then in [my partner’s] family his mom stayed at home and his dad worked, so I mean he was brought up obviously in that kind of environment. So I think because our generation, we both saw it like that I think it has just fallen a little bit.... Actually, I think we just do things without thinking about it... maybe you think about it later. We don't discuss, we don't have a lot of discussions our stuff like that.”

Non-male breadwinner couples were more likely to identify their parents as an influence on their decision to share childcare responsibilities. A few women that we interviewed were inspired by their mothers having worked full-time. Some men seemed to be deeply marked by the absence of their father during their childhood and wanted to avoid ‘repeating history’. One father explained: ‘I didn’t see my dad when I was growing up because he was a career man. It’s really horrible saying that I didn’t know my dad. My ideals started to be built from then. I remember as a teenager and thinking if I had a kid I’m going to spend some time with him’ (Father, Bristol, NB).

Although parental examples are formative in some instances, it is possible that some couples exaggerate the role of their parents because of the narrative fallacy - the desire to find patterns and tell a coherent narrative despite the underlying randomness of events (Taleb, 2007).

Gender stereotypes

Stereotyping is when particular traits are over-generalised to apply to all members of a particular group (Hilton & Von Hippel, 1996). In the UK, traditional beliefs about ‘father as

a breadwinner' and 'mother as a carer' remain strong (Hauari & Hollingsworth, 2009). They are reinforced by the UK culture where parents are expected to spend a lot of time with their children (Sayer & Garnick, 2011), as well as by long working hours and gendered access to family friendly provisions (Schober, 2013).

Evidence from other developed countries suggests that 'non-traditional parents' (working mothers and stay-at-home fathers) tend to be perceived negatively (Brescoll & Uhlmann, 2005) and can be discriminated against in the workplace (Vinkenburg, 2012). Working mothers tend to be perceived as less competent (Cuddy, Fiske, & Glick, 2004) and, if they are successful, as less warm and likeable (Bernard & Correll, 2010). On the other hand, if mothers are described as working out of financial necessity, they are viewed slightly more positively (Brescoll & Uhlmann, 2005). Stay-at-home fathers also face stark prejudice. In the same study, they were the most negatively evaluated 'non-traditional' parent. Compared to working mothers, stay-at-home fathers were– 'neither liked nor respected' (Brescoll & Uhlmann, 2005).[16]

In our small sample, a few parents acknowledged that stereotypes about the gender-specific division of labour had influenced their decisions. A father, speaking about his partner, said: 'I think she accepted that in society the belief is that the woman takes the chunk of time. As much as I don't think that sounds right saying it, I think it's an assumption or a presumption that people make' (Father, Kettering, NB). One mother also reported how others could be surprised when her partner took-on caring responsibilities.

Mother, Plymouth,NB: 'When [child] was a couple of months old, I got sent to a psychotherapist because I was borderline depressed and they wanted all three of us to be there. So we were sitting there having this chat and [our son] filled his nappy, so [my partner] took him into the corner to change him. The psychotherapist said "you don't need to do that to impress me". He said, "I'm not doing anything to impress you. You were talking to my wife and my son has filled his nappy, so I'm going to take him into the corner and change him"'.

Gender stereotypes can also inform parents' attitudes towards childcare and work (Heilman, 2012). For example, there is a strong connection between the stereotype of 'mother as carer' and the attitude that mothers should provide home childcare.

[16] The study measured praticipants' affective evaluations of vignettes describing either a working mother, a stay-at-home mother, a working father or a stay-at-home father. Measured items included questions on whether the person was a good parent, whether she was contributing equally to the family's well-being, whether the person is selfish, has made a good decision, how respondents and the society feel about the person.

Barriers to Shared Parental Leave take-up: A closer look

Shared Parental Leave (SPL) was introduced in 2015 to give parents the flexibility to share leave more equally in the first year following the birth or adoption of a child. The scheme has been criticised for its complexity: from legislation to the process employers are expected to follow. The Institute for Employment Studies has highlighted that some employers are struggling with implementation as well as encouraging take-up of the scheme and putting out appropriate guidance (Mercer, 2016). In this section we take a closer look at how parents in our qualitative research made decisions about Shared Parental Leave (SPL) to illustrate how different factors interact to shape parental decision-making.

Work-related factors: Awareness, complexity and lack of clarity about employers' obligations

SPL is predominantly accessed via the workplace. Some parents are discouraged by a lack of information and support from their employer. Many couples that we spoke to did not know about SPL ('I didn't even know it was a thing to do'), did not know if they were eligible for SPL, or did not realise that employers are legally required to provide SPL to eligible parents ('It's still down to company discretion is it not?').

Financial factors: Discouraging lack of enhanced pay

Couples who 'do the math' usually discover that SPL delivers lower pay for the couple as a unit. While most employers offer enhanced maternity pay, only a third of employers offer enhanced SPL pay (Working Families, 2016). This creates a strong financial disincentive in the short term. In the words of one parent: 'if we split it, we would have been worse off financially'.

Emotional factors: Loss aversion about maternity leave

SPL effectively transfers leave from the mother to the father. Because losses are experienced more strongly than gains, loss aversion can deter mothers from agreeing to SPL. One mother told us: 'I saw my maternity leave as mine ...when you start splitting it, someone has got to lose'. Fathers can also be reluctant to deprive their partner of maternity leave.

Social factors: Lack of role models, and gender stereotypes

A lack of role models contributes to a low awareness of SPL. Amongst the parents we interviewed, cases of SPL being accessed remained 'pretty much unheard of'. Further, some parents articulated reservations about SPL based on gender stereotypes. They were swayed by an 'unspoken assumption' that mothers should care and fathers should work.

Attitudinal factors

Attitudes in the UK have been slowly becoming more egalitarian in terms of gender roles, but remain quite traditional compared to other countries (BSA, 2013). Despite changes in attitudes about gender roles (Ellison, Barker, & Kulasuriya., 2009; Asmussen & Weizel, 2010), the majority of British people - even young ones - still express a preference for a single breadwinner model rather than a dual-earner model, and think that mothers should work less than full-time while a family has a child under school age (BSA, 2013).

Measuring attitudes as separate from behaviours

A challenging part of our analysis was to discern parents' attitudes, independent of their behaviours. We knew that some couples with egalitarian attitudes would end up having an unequal split of childcare responsibilities due to external factors. Further, we were aware that social desirability bias (the need to respond in a way that will be viewed favourably by others) might cause some parents to overstate their egalitarian values.

Before discussing their specific behaviour, we asked parents the following questions (derived from the British Social Attitudes survey) about society in general:

1. How do you think childcare responsibilities should be divided within a couple?
2. How much should a mother/father work when they have a child under school age?
3. Should there be a main breadwinner/carer?
4. Should the division of childcare be based on income?

Based on their responses, we gave each couple a score from 1 to 5 (1 = very traditional, 5 = very egalitarian). We characterised parents as having 'egalitarian values' when they indicated that childcare and work responsibilities should be, to the greatest extent possible, equally distributed between mothers and fathers. We characterised parents as having 'traditionalist values' when their responses indicated that mothers with children below school-age should not work full-time, and that there should be a primary male breadwinner and a primary female carer.

Some couples who said that childcare responsibilities should be divided equally later expressed the view that mothers should be the main carer and not work full-time. We characterised these couples as traditionalist. We expect that they interpreted an 'equal division of childcare responsibilities' in a manner that did not contradict their conviction that mothers should be primary carers. For example, some of these parents might have conceivably construed earning an income as contributing equally to childcare. Alternatively, their expression of egalitarian ideals may be attributable social desirability bias.

Table 4 illustrates how some parents expressed these attitudes in our interviews. As illustrated below, traditionalist parents often used biological reasons to justify their position.

Table 2 Traditionalist vs. egalitarian attitudes expressed by interviewees

Traditionalist attitudes	Egalitarian attitudes
'It's the mum that carries the baby so it's just a natural thing for a mum to stay at home'' (Mother, Milton Keynes,MB)	'There's no reason why, in terms of their capability, either gender couldn't do the role, with the exception of the biological aspects' (Mother, Leeds,NB)
'It is quite natural for the mum to do most of the work' (Mother, Greenwich,MB)	'As far as possible it ought to be an effort shared jointly' (Father, Leeds, NB)

In our sample, the majority of parents (70%) had egalitarian values, including 40% of parents with a male-breadwinner model. Egalitarianism was more common amongst parents with tertiary education (80% vs 50% with secondary education only), and in couples where the woman earned more than her partner before having children (80% vs 66% of couples where the man earned more).

Attitudes do not predict behaviours

Research suggests that while traditional attitudes contribute to the unequal division of childcare responsibilities between parents, egalitarian attitudes alone do not guarantee a more even division (Schober & Scott, 2012). In fact, some egalitarian couples reportedly adjust their attitudes to be more traditional after adopting a male breadwinner model (Schober & Scott, 2012). This can partly be explained by the need to avoid cognitive dissonance - the feeling of distress or tension that occurs when people hold contradictory beliefs, or act inconsistently with their beliefs (Festinger, 1962).

Consistent with the literature, we found that egalitarian attitudes do not always lead to parents sharing childcare responsibilities equally. Almost half of couples interviewed with a male breadwinner expressed egalitarian attitudes. This apparent inconsistency between attitudes and behaviour is discussed in more detail in the next section (4.3 Typology of parental decision-makers).

According to both the existing literature and our interview findings, attitudes are more loosely related to the family earning model than popularly imagined. Only very strong attitudes can reliably predict how a couple will divide childcare responsibilities. Moreover, many couples with egalitarian attitudes adopt a male breadwinner model despite their view that childcare responsibilities should be shared equally. Having established that there is no direct relationship between attitudes and behaviours, the next parts present a typology of parental decision-makers that illustrates how different drivers tend to cluster together.

4.3 Typology of parental decision-makers

Not all parents are likely to be equally amenable to changing their behaviour. In this section, we propose a simple conceptual model of parental decision-makers to help policy makers think about the most fruitful target groups and to reflect on how the various factors described above interact with each other. Athough it is based on observations from our qualitative interviews, the typology is intended as a thinking tool for policy and service design rather than an empirical representation of parental decision-makers. We hope the typology can help policy makers think about how specific interventions might be received by different parents.

The typology groups parents into four behavioural types (Figure 7) based on two factors:

1. the family earning model (‘male breadwinner’ or ‘non-male breadwinner’); and
2. whether parents’ attitudes, or external factors (such as social norms or financial considerations), were the main driver of decisions about childcare.

Figure 7 Typology of parental decision-makers

	Decision-making reflects parents' attitudes	Decision-making reflects external factors
Male breadwinner model	Traditionalist male breadwinners These parents make implicit decisions because their attitudes conform with social norms. Limited opportunity to change behaviour.	Conformist male breadwinners These parents make implicit decisions on the basis of social factors, emotions and external factors such as employer policies. They may have egalitarian or traditional attitudes. Significant opportunity to change behaviour.
Non-male breadwinner model	Egalitarian non-male breadwinners These parents depart from social norms following explicit deliberation. No imperative to intervene.	Coincidental non-male breadwinners These parents make implicit decisions on the basis of external factors such as financial and work-related factors. They may have egalitarian or traditional attitudes. May require support to maintain the non-male breadwinner model.

Egalitarian non-male breadwinner couples

Key characteristics

- Strong egalitarian values
- Relatively high wealth
- Not conforming to social norms regarding gender roles
- Mothers highly value career fulfilment and/or fathers are willing to make career sacrifices to enable their involvement childcare

Decision making style

- **Explicit** (couples explicitly discus the division of labour in order to reconcile social expectations with their egalitarian attitude)

Influential factors

 Attitudinal	These couples conscientiously choose a model that is consistent with their attitudes
 Financial	Financial factors are important
 Work	Opportunities for work fulfilment (for women) and flexible work are also influential
 Emotional	Fathers are more likely to cite emotional factors

These parents are highly motivated egalitarians who have the means to adopt a family earning model that reflects their views. They can absorb the costs of SPL arrangements that do not maximise household earnings, and can access formal childcare. They often have flexible work and/or are willing to change jobs to facilitate a more equal division of household responsibilities.

In our sample, we encountered three scenarios:

1. In the first scenario, both parents shared exceptionally strong egalitarian attitudes. One father said: ‘You have ultimately got to put your money where your mouth is, and you can talk as much about equalities and issues that are important to female rights, and unless people start doing things it’s just chatter’ (Father, London,NB).

2. In the second scenario, mothers were strongly work-oriented and cognisant of the effects of taking time out of the workforce. One mother said: ‘If I quit work now ... I’ll have to go out into the world again and basically start at the beginning, whereas I had already established a career path in my current job’ (Mother, Kettering, NB).
3. In the third scenario, fathers prioritised their involvement in childcare. One father told us that he changed jobs because he ‘wanted a job and hours and work for a company that was a lot more family orientated’ (Father, Bristol, NB).

Egalitarian non-male breadwinner couples are more likely to use SPL. The decision to take up SPL is usually motivated by the father’s commitment to contribute to childcare. One father in the sample told us: ‘As soon as I became aware of it, I was keen to take it in some form, partly out of commitment in being a parent’ (Father, Leeds, NB).

Some fathers in this group are already working flexibly, while others actively switch to more flexible jobs. Although they often prefer to retain full-time work, they may choose to compress their hours to make time for childcare. One father noted he was able to manage his shifts to maximise the time he could spend with his son, adding: ‘I’ve met a lot of fathers since [my son] was born. They say, “well I never got to see my kids between the Monday and Friday - I just saw them at the weekend and when I came home in the evening they were already in bed”. So I think I’m a bit fortunate from that point of view’ (Father, Cornwall, NB).

Decision-making amongst this group tends to be explicit and engage System 2 thinking. Despite having an implicit agreement to favour egalitarian behaviours, these parents need to compare different options and plan ahead. As one father told us: ‘You don’t walk into it without planning ahead. We had all this figured out in various scenarios before he was even born. We talked a lot about it before she fell pregnant’(Father, Plymouth, NB).

Couples in our sample felt that having an explicit discussion and making a clear commitment was vital to realising an equal division of labour.

Mother, Leeds, fNB: ‘I think because we decided before [my son] was born, the change in my emotions and how I felt once I had [my son], the decision had already been made and it would have been very unfair on me to have been in a situation where I went no, I’m emotionally connected to this child and you can’t have the time off’.

Mother, London, NB: ‘[Having that] conversation up front before the baby had arrived and even before being pregnant [helped], because it committed us to doing something that isn’t, you know it isn’t the status quo; it’s quite different. I think particularly in those early days of having the baby, some of the things we were finding quite daunting. For example, for a good 2 to 3 months he was rejecting bottles while I was breastfeeding. So the idea of having this fixed deadline at six months to transfer across was quite daunting. I think if we hadn’t fixed it in stone, we might have been more inclined to go back and think can we do this’.

Traditionalist male breadwinner couples

Key characteristics

- Strong traditional values
- Relatively high wealth, usually derived from the father's earnings
- Strongly conforming with social norms
- Mothers are less career-driven
- Fathers prioritise their role as breadwinners

Decision making style

- **Implicit** (couples adopt a male breadwinner model without discussion; or discussion is limited to the practicalities associated with their decision)

Influential factors

 Social	Social factors (including the example set by the couple's family, the behaviour of close peers and general norms) are the predominant influence
 Attitudes	Attitudes align with social norms
 Financial	Financial and work-related factors influence how long the mother stays at home, and her eventual work pattern
 Work	Fathers tend to be unwilling to change their work arrangements to accommodate childcare responsibilities

These parents, who have strong traditional values, do not experience any conflict between their attitudes and social expectations. Traditional male breadwinner couples may not explicitly acknowledge that they follow in their parents footsteps but couples in our sample referred to 'the way they were brought up' to justify their division of childcare. They were also influenced by the example set by their peers. One father told us: 'Everybody that I know it's the man that works full-time, and the woman is either part-time or doesn't work at all.' (Father, Cornwall,MB).

Although financial factors are not the main driver of their decisions, , the model makes financial sense (due to the father's higher relative income). Among parents with fewer

financial resources, financial and work constraints affect their ability to adopt a pure male breadwinner model.

Father, Cornwall, MB: ‘We just discussed on what we could afford and it would have been nicer if [my partner] could have longer off, but she has to go back to work. We discussed that I was going to do more when she was going to go back and what sort of hours she was going to do, and what we could afford, and what hours she could drop. So then she went to talk to her work on what they would let her drop to. So they had to agree if she could go part-time, and that was the main thing we had to sort out in what [my partner’s] hours were going to be.

No, [I didn’t consider part-time working]. It would be harder for me to drop to part-time hours and I don’t think they would let me. If I went down to part-time I think it would be hard and I won’t be able to get back to full-time. I think [my partner] would be able to get back to full-time if she wanted to with her work.’

Decision-making amongst these couples is implicit. They model the so-called ‘doing gender’ approach by conforming to gender roles (West & Zimmerman, 1987). One mother told us: ‘If it's not financial and I think it's just from your background, how you've been brought up, so your personal view of life’ (Mother, Portsmouth, MB). These decisions are potentially reinforced by the current choice architecture - the influence that the presentation of options has on the choices people make (Thaler & Sunstein, 2008). For example, the way that government agencies and employer present information childcare and work options. As one father tolds us: ‘I didn’t really see any kind of information and nothing at all as I recall. The only thing I discussed with my line manager at the time was we talked about my paternity (Father, Wigan, MB).’

Conformist male breadwinner couples

Key characteristics

- Not particularly strong attitudes (egalitarian or traditional)
- Neither parent is highly motivated to depart from traditional gender roles
- Decisions are strongly influenced by external factors, especially social norms and choice architecture such as employer policies.

Decision making style

- **Implicit** (parents adopt the most common division of responsibilities without actively comparing different options; some discuss the practicalities associated with their decision)
- **Satisficing** (couples settle on a suitable option, rather than striving for the option that suits them best)

Influential factors

 Social	Social factors (including the example set by the couple's own family, the behaviour of close peers and general norms) are the predominant influence
 Financial	Financial factors are cited as barriers, but most couples face low financial constraints
 Work	Most couples do not seek to change their job situation, and are influenced by the policies (or perceived policies) or their employer(s)
 Emotional	These parents are strongly affected by emotions

Conformist male breadwinners have a range of attitudes. What distinguishes them is that they are not sufficiently motivated to depart from the traditional model, or feel powerless to do so. For example, some egalitarians may conform to the male breadwinner model because they are unwilling to bear the financial or social costs associated with adopting a non-traditional family earning model.

Social norms were are influential. When asked what factors influenced how childcare was divided in his household, one father told us that the people he spoke to: 'always made

the assumption that [the mother] would be the one that would take the long time off' (Father, Wigan, MB). In relation to SPL, a different father noted: 'even if it's technically an option, it's not something that people do' (Father, Halifax, MB).

In some cases, emotional (rather than social) factors are persuasive. One mother said: 'I was adamant at first that I would go back full-time and then once the reality of having a child [set in], everything was very different ... I decided that work is always going to be there but these times may not.' (Mother, Wigan, MB). Similarly, one father told us: 'Before [my daughter] was born, [my partner] was actually planning six months. After probably only a month or two of having [my daughter] around, it was definitely an emotional decision. We didn't want to leave her with nurseries or childcare, so we stretched it out as far as we possibly could. [My partner] couldn't face going back to work and just leaving her with someone else' (Father, Halifax, MB).

Conformist male breadwinner couples make implicit decisions. Similar to traditionalist male-breadwinner couples, these conformist couples arrive organically at a division of household responsibilities, but may discuss financial and practical matters (such as the duration of maternity leave). One mother explained: 'We started talking how long I would be having off, because we never really discussed it and the assumption was always there from both parts that it would be me that took the time' (Mother, Wigan, MB).

These parents tend to embrace the first suitable division of responsibilities that they encounter. They do not invest time to optimise these arrangements. This strategy is called 'satisficing'. It is effective for minimising the cognitive strain associated with simple, low-stakes decisions. For complex and important decisions, however, the consequences of an inferior outcome usually warrant a more intensive appraisal of different options.

Lack of conviction makes these parents more sensitive to external factors, such as choice architecture. One mother aptly described choice architecture when she referred to 'the way that society is setup at the moment' (Mother, Halifax, MB). It includes the 'cues' provided by government agencies and employers. Parents cited, for example, the gender pay gap, the absence of explicit SPL offers from employers, the financial implications of taking SPL, and difficulties for men in securing flexible work arrangements. One mother told us: 'In an ideal world we'd like to have equal pay, but we don't always get equal pay, so I think someone has to take a step back and that just happens to be me in this relationship' (Mother, Milton Keynes,MB).

In summary, these parents end up with a male breadwinner model mostly as a result of inertia created, for example, by existing norms and choice architecture. They are unlikely to challenge the presumption that the mother will assume primary caring responsibility.

Coincidental non-male breadwinners

Key characteristics

- An unplanned event prevents the father from maintaining full time work
- The influence of this event trumps the influence of social norms as well as parents' attitudes and preferences

Decision making style

- **Implicit** (parents adopt the division of responsibilities dictated by external factors, without fully investigating different options)

Influential factors

Work

A work constraint (for example, a redundancy) is the determinative factor

Couples sometimes end up with an equal division of labour by accident. A significant external event is often required to overcome the influence of the social norms and choice architecture that encourage mothers to take primary responsibility for childcare. Coincidental non-male breadwinners tend to emerge when a father being out of work coincides unexpectedly with the birth of the child. For example, if the father is studying or is made redundant, the mother is driven to share (or assume) the breadwinner role.

In one case in our sample, a father's redundancy helped an egalitarian couple realise their ideal division of labour. Thanks to a forced change of employer, the father could 'share' leave and opted for a part-time job after his partner's return to work (also part-time). The father told us:

'I was lucky because my company offered me redundancy about after six months [after] my son was born. I took it so I could spend time with him, and then I spent the next year just being hands-on and getting to know my son' (Father, Bristol, NB)

For these couples, the non-male breadwinner model may be temporary. While not determinative in the short term, the couple's' attitudes, the mother's relationship to her work, and the father's work preferences may become influential if the external constraints disappear. As a father told us: 'When I get a full-time job, there is every chance that she will drop a few more hours.' (Father, Plymouth, NB).

Overall, this typology of parental decision-making provides a conceptual tool for thinking about how behavioural interventions can encourage parents to equalise the gender balance of work and childcare responsibilities. We hypothesise that conformist male breadwinner couples are the most responsive to behavioural interventions. These

couples have adopted a male breadwinner model not as the result of purposeful deliberation, but due to social factors and choice architecture around the division of childcare and work. We also hypothesise that behavioural interventions may be effective in encouraging coincidental non-male breadwinners couples to maintain their family earning model when their work or financial situation changes. In the next chapter we outline some possible behavioural solutions that could be used to shift parental behaviour.

5. Behavioural solutions to equalising childcare

This chapter provides suggestions on how behavioural science principles could be applied at an early stage to increase fathers' involvement and support mothers who wish to return to work to do so. These are summarised in Table 5 and discussed below. All the ideas proposed in this chapter would need to be tested, for example using a randomised controlled trial (RCT) design, to determine how effective they are in generating behaviour change in the context of parental decision-making.

As a first step towards testing some of the proposed solutions and generating empirical evidence of what works, we ran two online experiments as a part of this project, described in detail in Chapter 6. The first experiment tested the effect of different behaviourally informed messages on prospective fathers' interest in SPL and flexible working. The second experiment tested the effect of simplifying information about SPL on prospective parents' understanding of SPL and their interest in the scheme. The last column in Table 5 indicates whether a proposed solution was tested as part of the two experiments.

Table 3 Behavioural barriers and solutions

Factor	Behavioural barrier	Behavioural solutions	Tested in this project
Decision-making dynamic	Couples make decisions implicitly without discussion	Prompt couples to discuss how to share childcare	-
		Present couples with multiple options	-
Financial	Disregarding long-term costs to mothers, and highlighting costs to fathers	Help parents understand long-term costs to mothers	Exp 1: Arm 2
		Encourage employers to offer enhanced SPL	-
Work-related	Negative perceptions attached to men requesting flexible working; perceived effort related to SPL; low understanding of SPL eligibility rules and legal entitlement	Simplify information about SPL and highlight legal entitlement	Exp 2: Arms 2 & 3
		Target employers to encourage the offer of flexible working to men	-

Factor	Behavioural barrier	Behavioural solutions	Tested in this project
Emotional	Maternal guilt; loss aversion related to maternity leave among mothers	Induce loss aversion and anticipated regret in fathers	Exp 1: Arms 3 & 4
		Get parents to plan and pre-commit to how they will share leave and childcare	-
		Highlight the benefits of early involvement by fathers to mothers (e.g. home childcare)	-
Social	Lack of peers and role models who share childcare equally	Use social norms	Exp 1: Arm 2
		Provide positive role models for men (including with their employer)	Exp 1: Arm 3
Attitudinal	Disconnect between attitudes and behaviours	Focus on changing behaviours not attitudes	-
		Use messaging based on cognitive dissonance to highlight discrepancy between egalitarian attitudes and non-egalitarian behaviours	-

5.1 Changing the dynamics of decision-making

Couples tend to implicitly decide how to divide work and childcare responsibilities, rarely discussing deliberately the merits of different options. Behavioural literature recognises that implicit decision-making, linked to a reliance on System 1 thinking, means unconscious factors such as cognitive shortcuts will have a disproportionate influence on decision-making. For example, parents making decisions implicitly may be more strongly influenced by stereotypes of mothers as primary carers, and more sensitive to how choices around parental leave are presented (such as HR departments automatically offering maternity leave to mothers and paternity leave to fathers without referring to other options).

Prompt couples to discuss how to share childcare

Research suggests that open and constructive negotiation is associated with a more equal division of household responsibilities (Zimmerman et al., 2003; Knudson-Martin & Mahoney, 2005). We could prompt couples to actively discuss different ways of sharing childcare responsibilities. In a trial to support adult learners, BIT showed that a simple text message can be enough to get people engaged in conversation and strengthen social connections in a way that improves important outcomes (BIT, 2016).

We could test different prompts to encourage parents to have discussions about childcare responsibilities. The prompts could be delivered via government websites, when parents engage with their employer about parental leave, and/or when they visit their doctor. We could also provide parents with a conversation guide on how to have these conversations in a sensitive way.

These approaches have the benefit of being light touch and easily scalable but parents may find it difficult to make the time to have what can feel like a difficult conversation. A way to help parents overcome this barrier could be to run these conversations as a part of antenatal classes .

Present couples with multiple options

A lack of clear comparison information on alternative options leads people to decide based on more peripheral factors such as social norms, the behaviour of reference groups, or emotions (Kahneman & Miller, 1986; Bazerman, Tenbrunsel, & Wade-Benzoni, 1998). In terms of division of childcare, this means parents are likely to stick with the common male breadwinner model if they do not have clear information about alternative options.

Evidence shows that using a ‘joint evaluation’ - considering alternative options side by side - can help people to make a more informed decision, and frequently leads to a preference reversal (Bazerman, Loewenstein & White, 1992). For instance, participants were asked their preferences regarding a hypothetical situation involving different amounts of money being allocated to oneself vs. another person. The two options participants were asked about in terms of their preferences were: (A) $500 to oneself and $500 to the other person (a fair and equal allocation) or (B) $600 to oneself and $800 to the other person (which means the participant would get $100 more than if they had chosen option A, but they would also be advantaging the other person over themselves by $200). In a separate evaluation (i.e. judging one option after another) 71% of participants prefered $500 allocated to themselves and $500 to the other person, while in the joint evaluation 75% preferred $600 allocated to themselves and $800 to the other person. Simply the way options A and B were presented completely flipped participants’ preferences for option A vs. option B. This is because the joint evaluation improves people’s knowledge of ‘difficult-to-evaluate’ issues and highlights the underlying trade-offs (in this case, the absolute amount of money the participant was allocated vs. the

fairness of the relative amounts allocated to the participant compared to the other person). Joint evaluation has also been shown to eliminate gender bias by helping recruiters to focus on performance differences among applicants (Bohnet, Van Geen & Bazerman, 2015).

In the case of parental leave, parents who do compare SPL with maternity leave and paternity leave focus on short-term financial consequences, without considering long term financial implications or non-monetary aspects such as family wellbeing. We could use a joint evaluation to clearly compare and highlight the present and future trade-offs of different parental leave options.

5.2 Influencing the drivers of parental decision-making

Financial factors

In the short term, many couples experience a strong financial incentive for the mother to take on a bigger share of childcare responsibilities. Women tend to earn less than their partners, and most employers do not offer enhanced SPL. At the same time, couples tend to ignore or disregard the long-term costs to mothers that staying at home will have.

Help parents understand costs to mothers

Fathers may be more willing to share childcare responsibilities if they appreciate the costs that their partner will be incurred later in life as a result of being the primary carer. Messages that make these costs more salient could be delivered via channels such as government websites, workplaces and medical centres. Emphasising the losses associated with an unequal division of childcare responsibilities capitalises on loss aversion - the tendency to experience a loss as twice as powerfully as an equivalent gain (Kahneman & Tversky, 1979).

We used online experiments to test this proposal. Specifically, we tested whether informing men about how caring responsibilities affect mothers' careers, and about the growing popularity of SPL, would change their behaviour (see Experiment 1, detailed in Chapter 6).

Encourage employers to offer enhanced SPL

Enhanced SPL would address, in part, the short-term financial disincentives for fathers to contribute more to childcare. We could encourage employers to offer enhanced SPL through messaging that draws on social norms (see Section 5.5 below). For example, we could inform them that the majority of employers are moving towards offering shared parental pay of the same value as maternity pay.

Alternatively, we could harness employers' loss aversion by highlighting the risk that they may lose employees to competitors who offer enhanced SPL. This could be made more salient by ranking employers based on the degree to which their family policies promote

equal sharing between parents. Employers could receive feedback on their performance relative to competitors.

Work-related factors

Parents' engagement with their employer can influence how they choose to divide childcare responsibilities. Parents often lack a sound understanding of SPL eligibility rules, and are not aware that it is a legal entitlement for eligible parents (see 'Barriers to SPL take up' in section 4.2). Parents may also be deterred by the perception that their employer is not supportive. A survey by the Institute of Leadership and Management (2014) found that 58% of employees think that their employer is not supportive of SPL.

Simplify information about SPL and highlight that it is a legal entitlement

To help parents understand their entitlement to SPL, we could simplify the information available on government websites and from employers. As well as revisions to language, we could highlight the most important information (such as deadlines) and include illustrative examples. We used an online experiment to test the effect of simplified information, and simplified information coupled with information about SPL being a legal entitlement (see Experiment 2 in Chapter 5).

Encourage employers to promote flexible working for men

Employer behaviour can also affect fathers' take-up of flexible working. Many fathers would like to work less or more flexibly - even if this means taking a pay cut.[17] However, a CIPD survey found that only 30% of working parents said their organisation actively promotes flexible working for employees who have caring responsibilities (CIPD, 2016).

We could use similar approaches to those outlined in Section 5.2 in relation to SPL to encourage employers to promote flexible working for men. First, we could provide employer information about how an increasing number of employers are offering flexible working options for parents. Second, we could draw on loss aversion by highlighting the potential talent losses that employers face if they do not offer flexible policies for fathers.

Emotional factors

Women experience strong feelings of guilt associated with returning to work before they have exhausted their maternity leave entitlement, and returning to work full-time while their children are young. Further, loss aversion discourages some women from 'giving up' leave to accommodate SPL.

[17] According to Modern Families Index 2017, 47% of fathers agree they would like to downshift into a less stressful job to achieve better work-life balance. Just under half of millennial fathers (46%) said they would be willing to take a pay cut to achieve a better work-life balance, vs. just over a third of fathers overall (38%).

Induce loss aversion and anticipated regret in fathers

Framing a risky outcome as a loss rather than a gain provokes twice as powerful reaction which motivates people to work much harder to avoid it (Tversky & Kahneman, 1981). This is because loss framing arouses the feelings of guilt and anticipated regret which are especially potent drivers of parental decision-making (O'Keefe & Nan, 2012). While mothers worry about losing their leave, many fathers are not fully aware of how they are missing out. Highlighting the value of spending time with their child and making fathers reflect on the loss of this unique opportunity could be an effective way to encourage fathers to participate more in childcare.

In previous research anticipated regret - the tendency to take into account the regret we might feel in the future - has been effective in increasing the uptake of cancer screening (Sandberg & Conner, 2009), physical exercise (Abraham & Sheeran, 2004) and mothers' intentions to have their children vaccinated (Cox, Sturm & Cox, 2014; Ziarnowski, Brewer & Weber, 2009). Activating anticipated regret in people's minds can therefore influence behaviour.[18]

Drawing on these findings, we could remind fathers that they may miss out by not being involved in childcare. This could encourage them to ask for SPL or to request flexible working. This could be done via government communications to new fathers. At the same time, it is important for these messages not to come across as patronising or blaming fathers who may not have the possibility to stay at home. Using other fathers as messengers could also be effective, such as this quote from one of the interviews:

'Two weeks is not enough for a man. It's a massive life changing event and you've got to go back to work in thirteen days. You do miss out, you miss out massively (Father, Bristol, NB).'

We tested this approach in an online experiment to examine the effect of anticipated regret and loss aversion among prospective fathers (see Experiment 1, Chapter 5).

Get parents to plan and pre-commit to how they will share leave and childcare

Research shows that committing to a goal and planning in detail how it will be achieved increases self-control and ultimately improves the chances of success (Gollwitzer, 1993). For example, in a trial that BIT ran with jobseekers, getting people to plan in detail when,

[18] For example, more people expressed the intention to register as an organ donor when they read the following statement: "If I didn't register as an organ donor and someone I cared about died that could have been saved, I would feel regret" (O'Carroll, Foster, McGeechan, Sandford, & Ferguson., 2011).

where and how they were going to look for work increased their chances of moving off benefits (Behavioural Insights Team, 2015).

Commitment devices, which aim to help a person commit to a course of action, can also help to bridge the gap between people's intentions and actions, by increasing the costs of failure. The best way to raise the stakes is to make a commitment public, hence exposing oneself to reputational damage (Bryan, Karlan & Nelson, 2010).[19] Our fieldwork similarly suggests that parents who commit to an equal division of labour before their child is born and engage in advanced planning are more likely to sustain a non-male breadwinner model when faced with maternal attachment and feelings of guilt (see Section 4.2).

In practice, we could ask couples to commit to behaviours that lead to equal sharing such as taking up SPL by sharing their commitment publicly. In addition to pre-commitments, we could encourage parents to make plans to implement equal-sharing arrangements at key points, for example when they inform their employer about maternity leave or parental leave, or even earlier when they sign up for or attend antenatal classes.

Highlight the benefits of early involvement by fathers to mothers

Mothers tend to experience a powerful feeling of loss aversion at the prospect of 'giving up' their maternity leave to increase the time that their partner can spend with their child. One way to counter this loss aversion is to stress the benefits of early paternal involvement for the child and the couple. Evidence shows that early paternal involvement has a positive impact on the child's IQ, emotional IQ, educational outcomes, career success, mental and physical health, and future happiness (Allen & Dally, 2007). It also improves fathers' overall well being in long term (Pleck & Masciadrelli, 2004) and the quality of couple's relationship (Snarey, 1993).

Messages that make these gains salient could motivate mothers to value greater father involvement. A study has found that framing an outcome as child-benefiting can eliminate women's competitiveness gap in negotiation setting, i.e. women's lower desire to compete (Cassar, Wordofa, & Zhang, 2016). In other words, statements highlighting the positive impact of father involvement on child development could be used to motivate mothers to actively pursue a more equal sharing of childcare responsibilities.

Social factors

Parents are influenced by the behaviour and expectations of those around them. The parents we interviewed had few examples of equal sharing of childcare among their peers and in their family. In their reference groups, women took the majority of parental leave and men rarely reduced their hours or worked flexibly. Much like other cognitive

[19] For instance, in a study people who voluntarily publicly committed to a saving goal ended up saving twice as much as people in the control group, with just a basic account (Kast & Pomeranz, 2012).

shortcuts people use, these social norms are particularly influential in the decision-making among new parents.

Use social norms

While social norms can be a barrier if the behaviour we seek to encourage is opposite to that of the majority, they can also be used as a powerful way to influence behaviour (Cialdini & Trost, 1998). For example, BIT worked with the Equality and Human Rights Commission (EHRC) on a trial aimed at increasing the use of flexible recruitment (i.e. advertising jobs as having flexible working option) through provision of social norm information. We showed that social norm messaging can be effective even when the desirable behaviour has not yet become the norm: we found that informing HR professionals that flexible working will become the most common working option in the near future (i.e. it would soon become a social norm) led to a 24% increase in HR professionals who clicked on a link to find out more information about flexible recruitment compared to a control email (EHRC, forthcoming).

In relation to the sharing of childcare responsibilities, social norms could be used to encourage behaviour change, for example by letting future fathers know that 'almost half of of fathers are willing to work less and take a pay cut to spend more time with their family' or that 'employers support and accommodate these fathers'.[20] Positive social norms could be included in information distributed by employers, government agencies and professional associations.

Provide positive role models for men

The extent to which a person thinks "I can do this" about a certain task or goal - their sense of self-efficacy - is an important predictor of their actions and effort. Unless people believe in their ability to achieve something, they are unlikely to persevere in the face of difficulties (Krueger & Dickson, 1993). One way to increase a person's sense of self-efficacy is by using role models. People believe they can succeed if they see another similar person (a model) persevere and succeed (Bandura, 1977). For example, an Israeli study found that modeling workshops where participants watched 4-5 minute video clips of others successfully performing job search behaviours, followed by group discussion and role playing, increased general self-efficacy, as well as increased re-employment among those with low initial self-efficacy (Eden & Aviram, 1993).

Providing role models could normalise SPL and increase men's confidence in their ability to combine working with caring for children. For example, antenatal courses could offer testimonials from fathers who take SPL. In the workplace, employers could set up

[20] These statements are based on the Modern Families Index 2017, according to which 47% of fathers want to downshift to a less stressful job and 38 % of fathers would be willing to take a pay cut to achieve a better work-life balance, while 39% of parents feel that their employer supports flexible working (Working Families, 2017).

presentations by men who work flexibly, and senior leaders could share their experiences of SPL.

Where possible, the social norms or role models should refer to men with shared characteristics with the men they are speaking to, for example in terms of age, professional seniority or ethnic background. This is based on research suggesting that social norms messages are most effective if the reference group is similar to the person whose behaviour we are trying to influence (BIT, 2014).

Attitudinal factors

Couples with egalitarian attitudes do not always achieve an equal division of childcare and work responsibilities. In fact, external factors (social, financial and work related) prevailed for all but the most motivated egalitarians in our sample. Given that the relationship between attitudes and behaviours is often not straightforward, changing attitudes is not a strategy policy-makers can rely on to generate behaviour change. We therefore do not propose interventions based on changing attitudes in this part. Instead, we propose a strategy based on cognitive dissonance.

Use messaging based on cognitive dissonance

People prefer to think and behave consistently (Festinger, 1962). Emphasising cognitive dissonance can stimulate behavioural change (Pallak, Cook, & Sullivan, 1980). For example, someone who realises that they have failed to adhere to a personal goal may be prompted to reaffirm their initial commitment (Harmon-Jones, Amodio, & Harmon-Jones, 2010).

One way in which we might achieve this could be by designing and testing a short ‘parenting quiz’ which would be a survey structured to highlight the discrepancy between egalitarian attitudes and adopting the male breadwinner model. We expect that this would prompt some parents to consider SPL. For instance, the survey could include weighed questions such as: ‘How should childcare responsibilities be divided?’, ‘Do you prefer there to be a primary male breadwinner and a primary female carer?‘, ‘How important is your family life compared to your work responsibilities?’, ‘Would you be willing to change your working hours/take a pay cut in order to achieve better work-life balance?’. Parents would choose from a dropdown list of answers based on which the survey would suggest the most appropriate parental leave option. Parents identified as candidates for SPL could be asked to confirm their commitment to choosing SPL and to a particular division of leave by signing an online declaration. A series of automatic personalised emails could be sent to parents at timely periods to remind them of their commitment.[21]

[21] Weekly text messages were used successfully in a recent BIT trial to increase attendance and exam success among adult learners (BIT, 2016).

That said, a possible limitation of the cognitive dissonance approach is that to regain their internal consistency, people can either change their current behaviour or 'update' their beliefs and continue with their behaviour. In our case, this could mean that the quiz would remind some couples choosing the male breadwinner model of their original egalitarian beliefs. As a result, they could either adopt a more egalitarian model (i.e. changing their behaviour) or confirm their traditionalist behaviour (i.e. updating their beliefs). Further research, for example by testing the quiz outlined above, would allow us to determine whether highlighting cognitive dissonance is likely to encourage parents with egalitarian attitudes to share childcare more equally.

Challenges of changing gendered behaviours

Raising awareness is not enough – Some evidence suggests that raising awareness or deliberate effort to suppress gender bias do not work and may even strengthen the bias (Lenton, Bruder and Sedikides, 2009). According to Bazerman and Moore (2013), a meaningful change requires using the *'unfreeze-change-refreeze'* framework. This framework suggests that, as well as making people aware of an issue and the need to change, it is important to offer specific tools for behaviour change, accompanied by support to incorporate the new behaviours into everyday life.

Moral licensing and overconfidence – Interventions aimed at reducing gender bias may have the unintended effect of moral licencing where people allow themselves to engage in a negative behaviour (such as discriminatinmoning against a minority) after having done something positive (Monin & Miller, 2001). They can also lead to overconfidence where people overestimate their abilities and performance skills, for example in relation to how supportive they are of minority colleagues or employees (Bohnet, 2016).

Competitive threat – People may perceive interventions that seek to reduce discrimination as a a zero-sum game where the gains experienced by a discriminated person represent a loss to them personally. This can in turn lead to defensive behaviour or even retaliation. For instance, in one lab experiment, researchers told male employers choosing stereotypically majority-male teams for a task that most employers had chosen majority-female teams. These men reacted by choosing *fewer* women, in defense of 'their team' (Paryavi, Bohnet, & van Green, 2015).

The solutions presented above draw specifically on evidence from behavioural science. They are also designed to be easily testable ahead of any larger scale implementation. In addition to these, policy makers may wish to consider broader solutions that go beyond typical behavioural insights interventions. Based on our qualitative research, such broader policy solutions could look at further steps to make childcare more affordable and available, and making SPL equally economically viable for both parents.

5.3 Timing

The timing of any intervention is critical. Behavioural literature recognises the importance of communicating with people at points in time when the context makes them more receptive and susceptible to altering their behaviour. For instance, the significant 'moments of change' in an individual's life, such as moving house or having a child, can disrupt habits and facilitate reflection, thereby providing a unique opportunity to encourage a behavioural change (Thompson et al. 2011).

To encourage couples to share childcare equally, we need to target first-time parents during pregnancy. Before childbirth, couples have time to carefully consider their options and plan how they will follow through. After childbirth, parents are likely to be overwhelmed by their new responsibilities and emotions, depleting their 'cognitive bandwidth' (Crandall, Deater-Deckard, & Riley, 2015; Deater-Deckard, Wang, Chen, & Bell, 2012), which is their capacity to process and analyse information in a more thorough and informed way (Mullainathan & Shafir, 2013). Focusing on first time parents during the key 'moment of change' has the best chance of getting them to adopt the habit of more equal sharing. For instance, research shows that fathers who are more involved either during paternity leave or when the children are toddlers are likely to remain involved with the child until adolescence (Rehel, 2014; Cabrera, Ryan, Mitchell, Shannon, & Tamis-LeMonda, 2008).

6. What works - online experiments to test behavioural approaches to increasing fathers' involvement

In this part, we present the results from two online experiments that we ran using the Predictiv platform developed by BIT. Online experiments can distill a problem's primary features in a controlled environment and highlight how different materials and interventions impact core drivers of behaviour, such as comprehension and engagement.

The experiments were designed to test some of the solutions in the previous part. The first experiment tested whether different behaviourally informed messages increase behaviours related to more equal sharing of childcare among prospective fathers - namely take-up of Shared Parental Leave (SPL) and flexible working. The second tested whether providing simplified information about SPL increases prospective parents' understanding of the scheme and their willingness to use it, compared to standard government communications.

Because the government is interested in promoting gender equality by increasing the use of SPL and flexible working, we focussed on the take-up of these policies. Specifically, SPL was introduced in 2015 to allow eligible parents to share up to 50 weeks of leave between them. The right to request flexible working from an employer was introduced in 2014, allowing employees to, among others, work remotely, adapt their start and end times, or work part-time.

6.1 Predictiv

Predictiv is an online platform that enables users to run randomised controlled trials with an online population of participants. It can be used to test different versions of interventions, policies, or campaigns to determine which are most effective at achieving the desired outcome, and to identify the characteristics that make them successful. The tests are specifically designed to capture key drivers that affect behavioural outcomes, such as comprehension of a programme or service. In most cases, comprehension of material is a fundamental precursor to action: if an individual has not understood the benefits of a service, whether they are eligible, or what they need to do to sign up, then they are less likely to take it up.

Predictiv uses the same methodology as field RCTs by randomly assigning participants to see different versions of the material. By measuring individuals on the same outcome (e.g., how well they respond to subsequent questions about the material), it is straightforward to identify which elements of the material had a greater impact on comprehension, as well as other outcomes of interest.

Predictiv partners with a survey company that has a pool of registered people who can can access and participate in Predictiv studies. The total participant pool in the UK is comprised of approximately 150,000 individuals who are roughly representative of the UK

population in terms of gender and age, though the panel is somewhat skewed towards younger and lower-income groups. Demographic information on gender, age, income, and education level are collected for each participant in the sample.

6.2 Experiment 1: Testing messages to increase paternal involvement

Background

The purpose of the experiment was to test which behaviourally informed message achieved the highest level of interest in SPL and flexible working among prospective fathers.

We designed three different messages, drawing on the findings of our fieldwork and the research literature. Specifically, we tested messages addressing: parents' disregard of the long-term financial and career cost to mothers (financial factors); negative perceptions of men requesting flexible working or long periods of leave (work related factors); and the regret men may feel if they missed out on the time with child (emotional factors). We also tested a fourth, neutral message (representing a typical government communication) to determine how much more (or less) effective a behaviourally informed message would be.

Trial design

Participants were men aged 18-44 who were in a heterosexual relationship and who reported planning to have a child with their partner in the next 4 years. The sample included both existing fathers (who planned to have another child in this timeframe) and prospective fathers. The sample size was 1,600 participants who were randomly allocated into four trial arms.

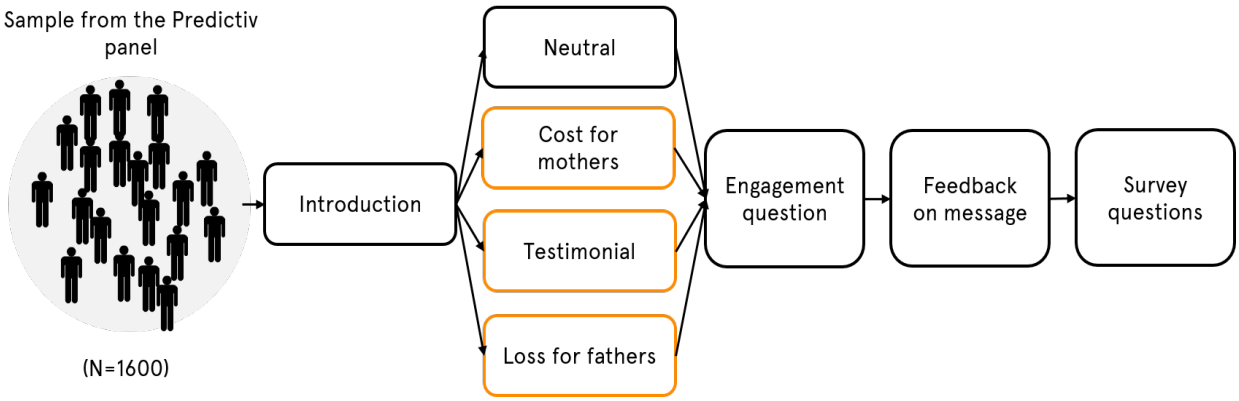
There were six stages to the experiment, which are also illustrated in the chart in Figure 8 below.

1. **Introduction.** After participants were asked questions to ensure that they fit the criteria, they were shown an introduction screen that explained the stages and length of the experiment and the payment for completion (stage 1 in the chart below).
2. **Intervention material.** Participants were randomly allocated into one of four intervention arms, in which they saw one of four messages (described below) (stage two in the chart below).
3. **Engagement measure.** Participants were asked whether they would like to see five brief tips from parents that had taken SPL (screen 3a), information about their right to request flexible working (screen 3b), or both (screens 3a and 3b). They could also choose to proceed without seeing any of these. Choices on this screen

acted as our primary outcome measure and were designed to capture genuine interest in the schemes by attaching a cost to engaging with them (the cost being spending a longer time on the platform)[22] (stage 3 in the chart below).

4. **Feedback on message.** Participants were asked about the message(s) they saw, including how useful they found the message to be, how much they liked it, and whether its length was appropriate (stage 4 in chart below).
5. **Stated intentions.** Participants were asked to rank, on a 5-point Likert scale, how likely they would be to use SPL or flexible working. They were also asked to rank how likely they would be to use SPL if doing so would result in a small setback to their career. This was to make the possible costs of such a choice more salient (stage 5 in the chart below).
6. **Thanks.** Participants were thanked and the experiment ended (stage 6 in the chart below).

Figure 8 Overview of Experiment 1: Messages to prospective fathers



Intervention arms

Participants were randomly allocated to see one of the four messages explained below. The full messages can be found in Appendix 4.

Arm 1. Neutral. This message provided basic information about SPL and flexible working using wording from government web sites. The idea was to expose some participants to a fairly neutral message to provide a comparison point for the other messages.[23]

Arm 2. Cost to mothers. The couples we interviewed displayed a strong tendency to discount the long-term impact on mothers' financial and career outcomes. Arm 2's

[22] If participants chose to see one piece of information they got a score of 1, if they chose to see both pieces of information, they scored 2, and they scored 0 if they chose not to see any information.
[23] Note that this is not to be interpreted as a "control" arm in the sense that it is different to not providing participants with no message at all.

message highlighted this cost to mothers. The message also emphasised that a growing number of men are taking SPL, suggesting this was increasingly becoming the social norm.

Arm 3. Testimonial. This was a testimonial from a young father expressing regret for not having spent more time at home when his child was born. The message drew on several behavioural insights. Firstly, we used loss framing with anticipated regret (Zeelenberg, 1999) to highlight how men might feel if they missed out on the time with child. We also used a familiar messenger to provide a role model normalising increased paternal involvement. The testimonial ended with a call to action with suggested steps to increase father involvement and to achieve more equal division of childcare responsibilities.

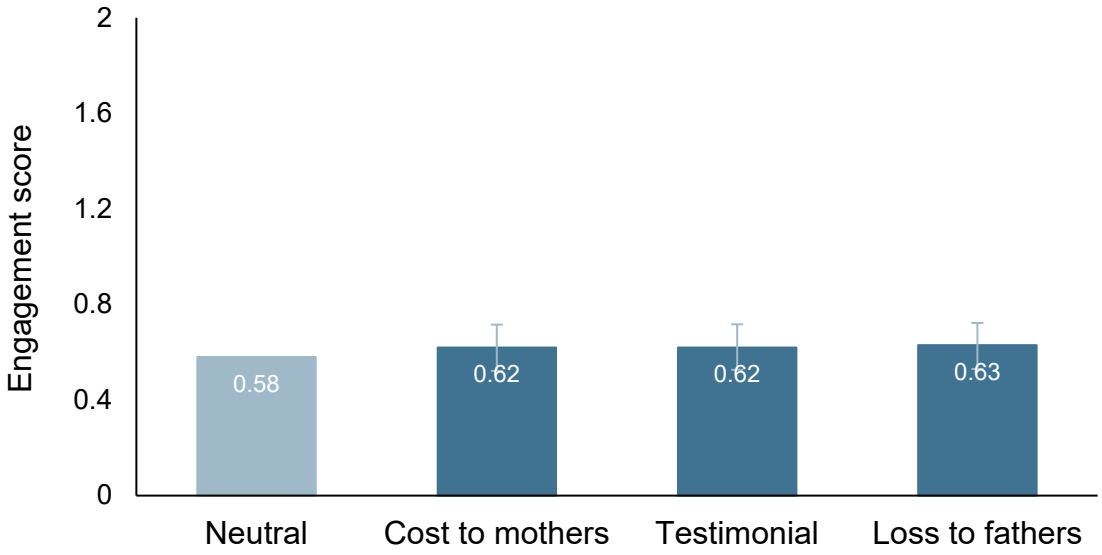
Arm 4. Loss aversion. This message drew on loss aversion by framing the SPL as a unique opportunity not to be missed (e.g. 'use it or miss out'). Our aim was to test whether depicting the SPL as a tool for fathers can increase their sense of ownership and provoke loss aversion. We mentioned how the short paternity leave makes many fathers feel they miss out on time with their child, beneficial to the child's development.

Results

Effects on engagement

Most people chose to look at no additional information (51%), 25% chose to look at one piece of information, and 24% chose to view two pieces of information. Figure 9 below reports the average engagement score that each arm received. People received a score according to the number of pieces of information they chose to see. There are small differences between the neutral arm and the arms that use behaviourally informed approaches (arms 2-4), but these differences are not statistically significant, meaning that are do not have adequate confidence that these differences are true and meaningful.

Figure 9 The effect of the messages on engagement



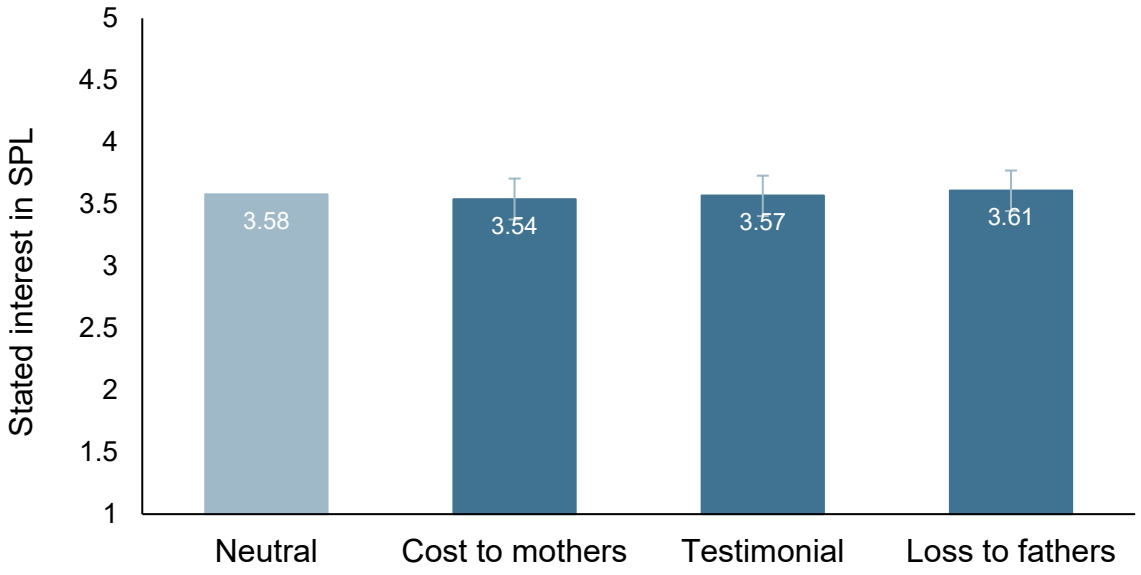
N=1600
** p<0.01, * p<0.05, + p<0.1
Note: Primary analysis

Effects on stated intentions

Similar to the engagement measure, we did not find any statistically significant differences between the arms in terms of impact on likelihood of using SPL, likelihood of using flexible working, and likelihood of using SPL if it imposed a cost.

Figure 10 presents the results for the first measure, participants' stated intentions to take SPL. On average, across all four arms participants' stated intentions were slightly towards using SPL (i.e. an average score that is greater than 3). For example, the neutral arm score of 3.58 corresponds to an average answer lying between 'neither likely nor unlikely' and 'somewhat likely' to use SPL. However, differences in scores between the different arms are again not statistically significant.

Figure 10 The effect of the messages on stated intention to take SPL



N=1600
** p<0.01, * p<0.05, + p<0.1
Note: Primary analysis

The second measure was the stated intentions of participants to take SPL despite a potential career setback (full results can be found in Appendix 3). On average, participants were closest to 'neither likely nor unlikely' to take SPL. For example, the neutral arm scored 3.06. Once again, differences in scores between the arms were not statistically significant.

The third measure was the stated intentions of participants to request flexible working from their employer (full results can be found in Appendix 3). On average, there was a slight tendency of participants to report that they would use flexible working. For example, the neutral arm scored 3.58, which corresponds to an answer between 'neither likely nor unlikely' and 'somewhat likely' to use SPL. Differences in scores between the arms were not statistically significant.

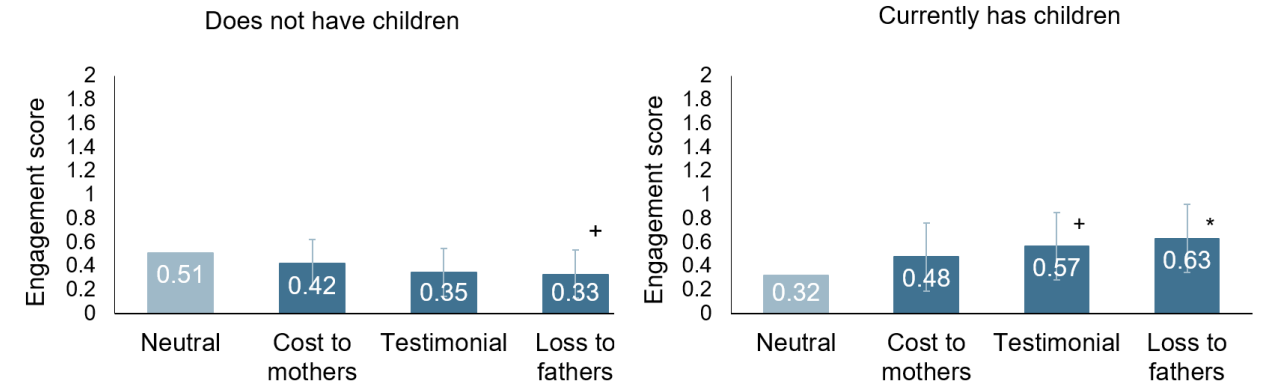
Current fathers react differently to prospective fathers

We further analysed the data by looking at the effect of participant demographics (e.g., age, income). This allowed us to check whether the effects on engagement and stated interest were sensitive to subgroup characteristics. This not only helped us be more confident in the overall results, but it also provided an indication of whether certain subgroups responded differently to the treatments. (Note that most of this analysis was exploratory, which means we did not have clear hypotheses about how certain subgroups would respond.)

In this analysis we found that current fathers were more engaged than prospective fathers (men that plan to have children, but currently do not). We conducted further analysis to see whether the messages affected these two groups differently.

Figure 11 below presents the results of this analysis. The loss aversion message (arm 4) had an opposing impact on these two groups. For current fathers, arm 4 (loss aversion) caused a statistically significant increase in engagement and arm 3 (the testimonial) caused an increase that is weakly significant.[24] We found the opposite pattern for prospective fathers. Arm 4 actually caused a statistically significant reduction in engagement among this group, compared to the neutral arm (arm 1). This explains why we observed no effect when we looked at fathers as an aggregate (i.e. the message had no effect, on average). We also found similar patterns for the two stated intentions measures that relate to SPL, but not for the third measure regarding flexible working.

Figure 11 The effect of the messages on engagement, by whether the participant had children



N=1600
** p<0.01, * p<0.05, + p<0.1
Note: Exploratory analysis

Conclusion

The behaviourally informed messages had no impact on engagement, which we measured by whether a participant volunteered to read additional information about SPL and flexible working. The messages similarly had no impact on the participants' stated interest in SPL or flexible working.

However, in additional exploratory analysis we find that for participants who currently have children, the message focusing on the loss to fathers increases engagement as well as stated intentions to use SPL. For prospective fathers, we find that this same message performs worse than the neutral message. The conflicting effects of this message explain why we did not see an average effect of this this message on fathers generally.

[24] At a level of $p < 0.10$

We speculate that the divergent responses might be driven by current fathers' ability to identify with the regret and loss expressed in the messages, while prospective fathers might have found the message to be patronising. While these results are based on exploratory analysis that was not part of original hypotheses, they suggest that it could be beneficial to use different strategies to promote SPL to fathers and non-fathers.

6.3 Experiment 2: Increasing the interest of prospective parents in Shared Parental Leave

Background

To guide future efforts to inform parents about SPL, whether through employers or through different channels, we tested three ways of providing information: a message taken from the government website; a simplified version of the same material; and a simplified version that also highlights that SPL is a legal right of eligible parents.

We primarily tested whether the latter two messages increase comprehension compared to the government communications. We also tested whether increased comprehension was associated with more interest in, and intention to use, SPL. Finally, we examined whether increased comprehension results in a change in the perceived effort that participants associated with applying for SPL.

Trial design

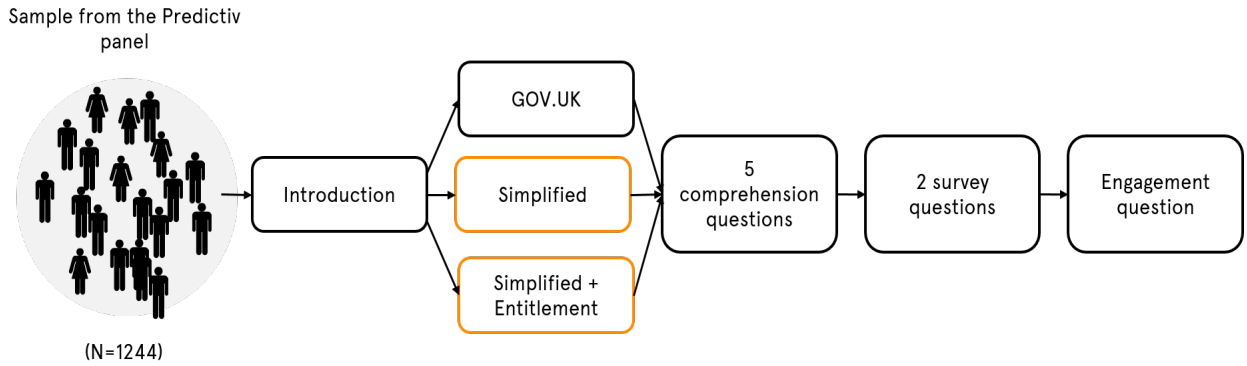
Participants were men and women aged 18-44 who were in a heterosexual relationship and who were planning to have a child with their partner in the next 4 years. Both existing parents who were planning to have another child in this timeframe, and those who did not have children yet, were included in the sample. The sample size was 1,244 participants who were randomly allocated into three trial arms.

There were six stages to the experiment, which are illustrated in the chart in Figure 12 below.

1. **Introduction.** After being asked a series of questions to ensure that they fit the criteria explained above, participants were shown two introduction screens. The first screen included instructions about the length of the experiment and the payment that they would receive. On the second screen they were asked how familiar they were with SPL. (Stage 1 in the chart below)
2. **Intervention material.** Participants were randomly allocated into one of three intervention arms (outlined below), in which they were shown three or four screens of information on SPL. (Stage 2 in the chart below)

3. **Comprehension.** Next, participants were asked five comprehension questions about the materials they read.[25] (Stage 3 in the chart below)
4. **Stated intentions and perceived effort.** Participants were asked to rank on a 5-point Likert scale how difficult they thought the process of applying for SPL was, and how likely they were to use SPL in the future. (Stage 4 in the chart below)
5. **Engagement measure.** Next, participants were asked whether they would like to see five brief tips from parents who had taken SPL in the past (5a), information about taking leave in blocks (5b), or both (5a and 5b). They could also choose to proceed without seeing any of these options. As in the first experiment, the choices on this screen were designed to capture genuine interest in the schemes by attaching a cost to engaging with it (the cost being spending a longer time on the platform).[26] (Stage 5 in the chart below)
6. **Thanks and payment information**. Participants were thanked, shown how much they would be paid given the number of question they answered correctly, and the experiment ended. (Stage 6 in the chart below)

Figure 12 Overview of Experiment 2: Information about Shared Parental Leave



Intervention arms

Participants were randomly allocated to see one of the three messages explained below. The full messages can be found in Appendix 5.

Arm 1. Information about Shared Parental Leave. Participants were given information about SPL that is currently available on the government website.[27] The information

[25] The questions were designed with an increasing level of difficulty. Each question was shown on a separate screen. Also, participants could not return to a previous question or to the material after they had clicked through. The questions were all multiple choice with only one correct answer per question.
[26] If participants chose to see one piece of information they got a score of 1, if they chose to see both pieces of information, they scored 2, and they scored 0 if they chose not to see any information.
[27] The information was taken from: https://www.gov.uk/shared-parental-leave-and-pay/overview

covered the eligibility criteria as well as the application process and the length of leave. We focused on eligibility criteria because parents need to first understand whether SPL is relevant to them.[28]

Arm 2. Simplified information. Participants were shown a simplified version of the gov.uk information. The logic behind the simplification was to make the reading of the material as easy as possible because even small increases to the effort required to understand the material are likely to decrease engagement (BIT, 2014). The main changes made were:

- Where readers are supposed to make calculations in their head, we do this for them.
- We reduced the number of words.
- Where appropriate we translate weeks into months.
- Unlike current government communications, we explicitly distinguish between the eligibility criteria of the mother and the partner. We also distinguish between two possible cases: The first is when only one parent is eligible for SPL, and the second - when both are eligible for SPL.[29]

Arm 3. Simplified information and legal entitlement. Participants were given the same information as in Arm 2, plus a line emphasising that SPL is a legal right, i.e. that their employer must allow them to use it if they are eligible. This is following the finding in our interviews that some parents that we interviewed thought that their employer could deny them SPL.

Results

Effects on comprehension

We found that the simplified version of the material (Arm 2) and the simplified version that also emphasised the legal entitlement to take SPL (Arm 3) significantly increased comprehension of the scheme compared to information on the gov.uk website (Arm 1) (see Figure 13 below). The comprehension scores presented in Figure 13 correspond to the number of questions that the participants answered correctly, out of a total of five questions. The participants in Arm 1 (Gov.uk) answered on average 1.48 questions

[28] The experiment did not provide comprehensive information about the scheme and omitted any information about Shared Parental Pay because this would have made the experiment too long for the platform.
[29] We acknowledge that there is also a third case in which only the mother can be elgible for SPL, but not the father. Unlike Maternity leave, this allow others to take leave in blocks. However, we suspect that this is a rare case which we therefore ignore.

correctly, and this increased to 2.23 in Arm 2 (Simplified) and 2.45 in arms 3 (Simplified + Entitlement).

To interpret these scores, it is necessary to unpack how participants performed in each of the five questions (full results are in Appendix 5 – Table 7). In the first two questions, simplification of information was enough to ensure that the majority of participants got these questions right.[30] These were the question relating the maximum length of SPL, and the amount of time an employee must have been working for her employer to be eligible for SPL. This demonstrates that simplifying the way these two issues are explained in future communications is likely to be beneficial.

In the third question we tested to what extent participants understand that SPL is a legal entitlement for eligible parents. The third trial arm was designed specifically to improve understanding of the legal entitlement. Two thirds of participants in Arm 1 and Arm 2 (which did not mention legal entitlement) answered this question correctly, which means that most people understand that SPL is a legal entitlement. However, the percentage of participants that answered this question correctly increased to 78% in Arm 3 which included a sentence that explicitly explains this point. This demonstrates that clarifying this specific issue in future communications would be beneficial. Interestingly, the third arm also performed better on other questions. This might mean that highlighting legal entitlement captured participants' attention more broadly.

The fourth question, which was related to the notice that must be given to employers, was an exception. The simplification decreased the comprehension score in this question, which may be related to the fact that the question was too complex considering the relatively low level of engagement participants typically exhibit on the Predictiv online platform.[31]

The fifth question focused on a complex aspect of the SPL eligibility criteria – the fact that the entitlement of each person relies on the work history of their partner (and not just on their own work history). The current government communications are the same whether the reader is the mother or the partner. We suspected that this is confusing for the reader who may not understand who the communications are referring to when outlining the different criteria each person much meet. To solve this, we explicitly distinguished between the eligibility criteria of the mother and the partner in Arms 2 and 3. We also

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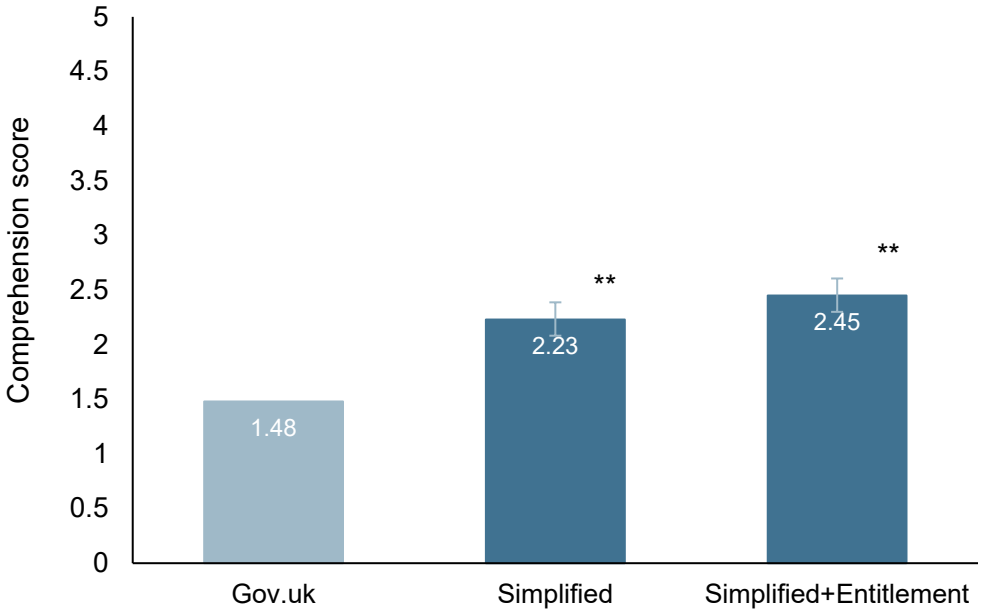
[30] 15% of participants got question 1 right in Arm 1, which increased to 50% in Arm 2. 29.4% of participants got question 2 right Arms, which increased to 72% in Arm 2

[31] We think that the lower comprehension score for arms 2 and 3 in relation the notice period was because this question was too hard. We asked: *"Emma and Ian want to start taking SPL two weeks after the due date of their baby. When does Emma have to notify her employer about taking SPL?"*
Employees must give their employer eight weeks notice before SPL can commence. Identifying the correct answer ('six weeks before the due date') required participants to subtract two weeks from the eight week notice period. Very few participants managed to do this; most incorrectly answered 'eight weeks before the due date'. Participants in arms 2 and 3 were most likely to choose this incorrect response. This may reflect that these participants were more likely to retain the messaging about the eight week notice period which they were exposed to, and had failed to appreciate the complexity of the question.

distinguished between two possible cases: the first is when only one parent is eligible for SPL, and the second is when both are eligible for SPL.

These changes significantly increased comprehension of this issue. Only 15% of participants in Arm 1 answered this question correctly, compared to 24.6% in Arm 2 and 27.5% in Arm 3. However, it is important to note that even after these changes were made, most participants did not answer this question correctly. Because this aspect of the eligibility criteria is essential for understanding whether a person will be eligible to take SPL, we conclude that any future communications relating to SPL should pay particular attention to it.

Figure 13 Effect of simplified information on comprehension

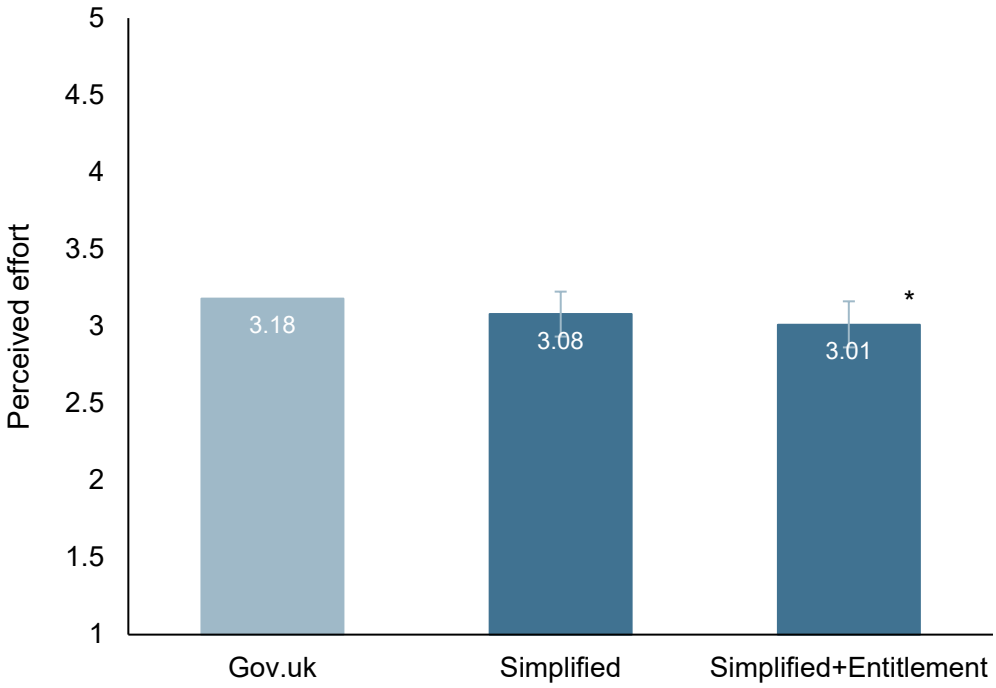


N=1244
** p<0.01, * p<0.05, + p<0.1
Note: Primary analysis

Effects on perceived effort

Participants that saw the simplified version mentioning legal entitlement (Arm 3) rated taking SPL as significantly less effortful compared to participants who saw the gov.uk version (Figure 14). Participants that saw the simplified version (Arm 2) also rated the effort associated with applying for SPL as lower, but this was not statistically significant.

Figure 14 Effect of simplified information on perceived effort



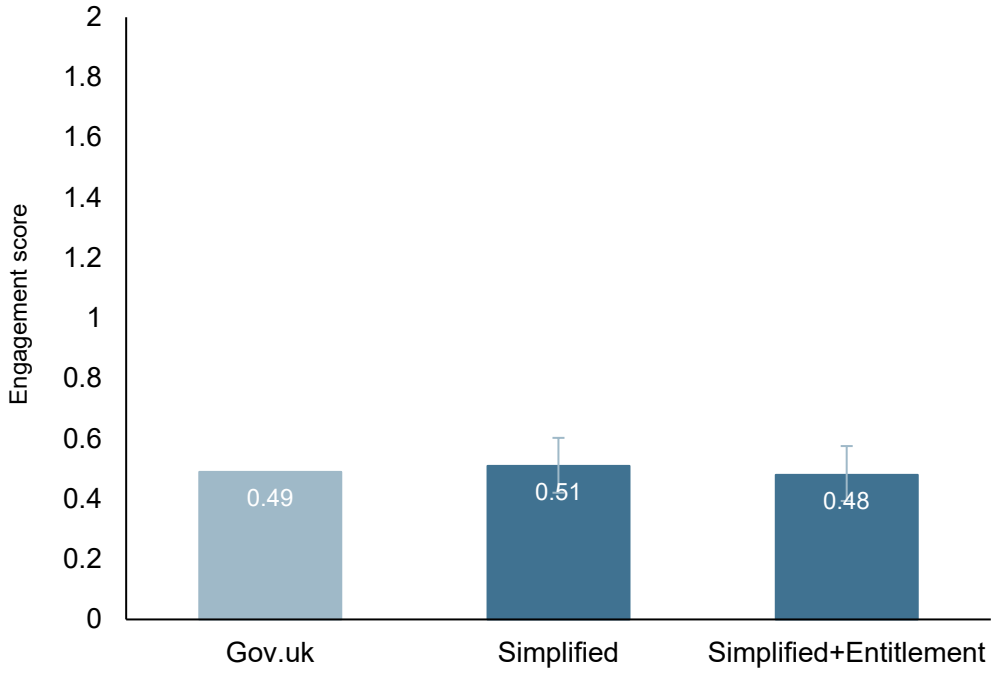
N=1244
** p<0.01, * p<0.05, + p<0.1
Note: Secondary analysis

Effects on willingness to engage and stated intentions

We did not see any differences between the three arms in terms of willingness to engage with further information (Figure 15), or intention to take up SPL in the future (Figure 16.)

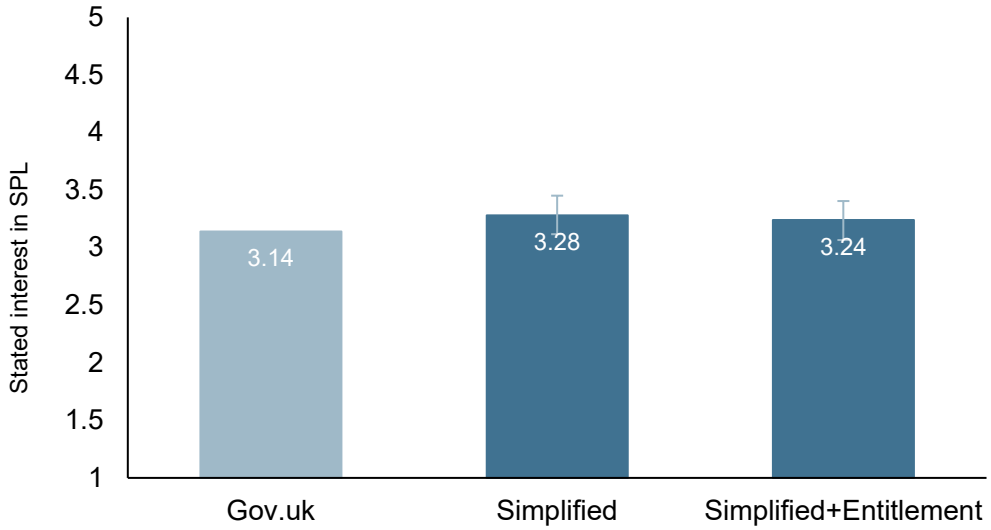
We also did not find that the materials affected men and women differently. In other words, in both groups no differences in engagement and intentions to take SPL were identified across the arms (though women were more likely than men to state that they would take SPL in the future - see Appendix 4).

Figure 15 Effect of simplified information on willingness to engage with further information



N=1244
** p<0.01, * p<0.05, + p<0.1
Note: Primary analysis

Figure 16 Effect of simplified information on intentions to take up SPL



N=1244
** p<0.01, * p<0.05, + p<0.1
Note: Secondary analysis

Multiple factors could explain the null effect on participants' willingness to engage with further information and willingness to use SPL in the future. Understanding the scheme better may have led some participants to disengage because the terms of SPL did not appeal to them. Participants may also have felt tired of reading several screens of materials, therefore not wanting to see further information. Also, participants may be have been unwilling to state that they will take up SPL without consulting their partner or obtaining broader information about Shared Parental Pay.

Conclusion

To enable people to make informed decisions related to SPL, they need to be able to understand their rights as well as how to apply. Couples that are determined to take SPL are certainly able to navigate the system. However, to realise its ambition of increasing interest in the scheme, the government needs to take into account the lack of engagement from some couples. In this experiment, we found that people who are asked to read government communications are, on average, not able to answer basic questions relating to the length of SPL or the eligibility criteria[32], demonstrating that the details of the scheme are highly complex.

Government cannot rely on employers, who are struggling to implement the scheme, to encourage people to use it (Mercer, 2016). One direction for future work could be the development and testing of simple guidance for employers to distribute to employees. However, as shown in this experiment, other factors besides comprehension may be relevant in driving take-up of the scheme.

Finally, we also found that participants perceive the process of applying for SPL to be easier when their legal right is emphasised - perhaps because they feel less daunted by the idea of negotiating with their employer. We conclude that emphasising this point in future communications is likely to be effective.

6.4 Limitations

Relative to field experiments, online experiments allow a higher level of control over the environments in which decisions are made. In particular, they allow us to isolate the causal effect of interventions when a controlled environment is necessary, but either not possible or very costly to create in a real life setting (Falk & Heckman, 2009). In the experiments that we ran, the online platform allowed us to focus solely on the factors that we assumed were important to parental behaviours: comprehension, engagement, perceptions and intentions.

[32] According to our findings, apart from one question, all the participants' answers are on average no better than a random guess.

However, the flip side to this advantage is that people are put into a more abstract environment than the one they would face when making a choice in a more realistic, everyday context. When parents choose whether to take SPL, they are likely to be influenced by a range of contextual factors that were absent in our experiments. For instance they might want to discuss their choices with their partner before making a decision. Also, the messenger in the online experiments was an abstract group of researchers, and the participants receiving the same message from their employer or their partner may have affected their behaviour differently (BIT, 2014).

Another factor is attention: while in an online environment we were able to capture the attention of the participants by paying them to participate, this might be a major challenge in the field. For these reasons, further field experiments are required to understand how to increase parental involvement.

7. Conclusions

Despite progress towards greater gender equality in areas such as education, significant gender inequalities persist in the way that childcare responsibilities are divided up and shared, with women in the UK doing on average about twice as much childcare as men. This disparity contributes to gender gaps in both employment and earnings, with women being substantially disadvantaged relative to men.

The aim of this project was to understand how parents make decisions about the sharing of childcare responsibilities and return to work, and to design testable interventions to encourage parents to equalise the gender balance of work and childcare responsibilities, in particular by motivating fathers to take a more active caring role. The fundamental challenge related to the topic is that moving away from women as main carers goes against the grain of society both in terms of social norms and gender stereotypes, which leads parents who choose differently to avoid being penalised. Furthermore, as long as women earn less than men, most couples are making a rational choice when they choose that the mother, rather than the father, should stay at home.

We used a combination of methodological approaches to understand exactly how couples make decisions about childcare in this challenging climate and identify potential solutions. To produce an in-depth and nuanced picture of the dynamics and drivers of parental decision-making we conducted a literature review of the key drivers of parental decision making, in-depth interviews with a range of first-time parents from thirteen couples with different earning and childcare models, an analysis of the 2014/15 UK Time Use Survey on time spent on childcare by men and women in the UK, and two online experiments designed to test potential solutions for encouraging parents to share parental leave and childcare responsibilities more equally.

We found that while financial factors (such as childcare costs and the parents' relative income) play a role, these decisions are deeply affected by how people view their employers and workplaces, how they perceive the behaviour of their peers and families, and their emotional reactions to parenthood. We also found that while some parents' behaviours in relation to gender roles in childcare were aligned with their attitudes (whether traditional or egalitarian), there was often no direct relationship between stated attitudes and actual behaviours. Many of the parents who said they were in favour of equal sharing still adopted a model where the mother stayed at home or worked part-time while the father worked full-time. Parents described how, regardless of their own attitudes, their choices were influenced by external factors such as social norms or changes to their employment.

We also discovered that couples often make decisions about the division of childcare and return to work without explicit discussion or negotiation, which is remarkable for decisions that have such a substantial impact on both parents' lives, in the short and long term. This was particularly the case for more traditional couples who are influenced by social norms.

Based on literature from behavioural science, we outlined a number of potential solutions which may have an impact on the behaviour of fathers, mothers and/or employers. Many of the solutions were novel, such as prompting parents to set aside time to have a discussion about how they wish to share childcare responsibilities or inducing loss aversion and anticipated regret in parents. As none of these interventions had, to our knowledge, been rigorously tested in the context of parental decision making, we designed two online experiments to evaluate the impact of some of these approaches..

Experiment 1, presented in Chapter 6, looked at what proportion of prospective and current fathers accessed more information about SPL or expressed that they were likely to take SPL or request flexible leave. However, the behaviourally informed messages that were tested did not significantly change these proportions. This suggests that more substantial interventions may be required to shift behaviour in relation to such a significant life decision.

Although the messages in Experiment 1 had no overall impact, our exploratory analysis showed that they increased engagement as well as stated intentions to take SPL among men who already had children, while decreasing them among those who did not yet have children. This suggests that although behavioural research on cognitive bandwidth might suggest the pre-birth period as the best time to intervene, fathers may be more receptive to messages about the sharing of childcare after the birth of their child.

Experiment 2, also presented in Chapter 6, showed that providing prospective parents with simplified information and highlighting SPL as a legal entitlement for eligible parents improved parents' comprehension of the scheme and reduced the perceived effort related to take-up. Although the intervention did not increase self-reported intentions to take SPL, the findings are very promising, suggesting that small changes to the way government communicates about parental schemes can help parents understand them better and perceive them as easier to use. Over time, we hope that this translates to higher actual take-up rates.

Overall, the experiments point to the importance of providing clear and user-friendly information, but also finding other, more radical ways to encourage parents to consider sharing childcare responsibilities in a more equal way. It is important for future research to assess how parents' behaviour can be changed in real-life settings, outside of experimental platforms, and how the effectiveness of interventions varies depending on when they are delivered relative to the birth.

Finally, it is sometimes necessary to find solutions which do not rely on awareness raising and on getting people to consciously change their behaviours (using their System 2), but which change the way that choices are presented. The right presentation of choices - the choice architecture - can result in choices and decisions that lead to reduced gender inequality, regardless of whether they change conscious attitudes and opinions or not. Through the evidence-based use of approaches that engage both System 1 and System 2 in the right ways, prospective parents and employers may be supported to make choices that are in the best interests of parents, children and business.

Appendix 1. Analysis of the gendered division of childcare

All results presented are based on BIT analysis of the 2014/15 UK Time Use Survey conducted by Natcen. The survey is a large scale household survey that provides data on the amount of time people aged 8 years and over spend on various activities in the UK. The survey uses a diary instrument in which participants record their activities in certain time periods (usually a day), as well as where and with whom they when doing these activities (Gershuny et al., 2017).The analysis was conducted on the following sample:

- Households of heterosexual couples
- Households defined in the survey as complex households were excluded from the analysis. These are households that have additional households members to just a couple or a couple with children (for instance if a grandparent lives in the household it would be classified as complex).
- The oldest member of the household is between 20-55 - to only capture people that are of prime working age with young children.

Household weights, which are included in the data set, are used when reporting the results.

Variables reported

The share of childcare performed by the man - this is the *within* household share of childcare performed by the man that was identified as the parent in the household. More specifically, the share of childcare is the total minutes that the man spent on childcare of his own child, divided by the total time spent on childcare by both parents.

The share of housework by the man - this is the *within* household share of the total housework (including childcare) performed by the man that was identified as the parent in the household. More specifically, the share of housework is the total minutes that the man spent on housework, divided by the total time spent on housework by both parents.

Household income - three levels of household income are reported. These were derived by splitting the full sample of couples into three even groups based on equivalised household income. To calculate equivalised household income we used OECD scales and the total monthly household income (including tax credits). Note that 15% of households did not have information about their household income.

Working patterns - the categories reported in Figure 4 are:

- Both not in work - this includes households in which all respondents are not working, including those searching for work.

- Woman FT; Man Less – this includes households in which the woman is working full time, and the man is either working less, or not in work.
- Man FT - flexible; Woman less – this includes households in which the man is working full time on a contract with flexible hours (in contract types with core hours and without). The woman is either working less, or not in work.
- Man FT ; Woman less – this includes households in which the man is working full time, the woman is either working less, or not in work.
- Both FT workers – this includes households in which the man and the woman work full time.

Regressions

The outcome measure is the share of childcare performed by the father on weekdays. This ranges from 0-100%.

	(1) Share of Childcare By Man in the HH	(2) Share of Childcare By Man in the HH	(3) Share of Childcare By Man in the HH
Joint parental education (baseline=no parent has an HE degree)			
Both have a HE degree	0.057^{+} (0.030)	0.055 (0.036)	
Only man HE degree	0.049 (0.047)	0.069 (0.052)	
Only woman HE degree	0.094** (0.035)	0.077* (0.039)	
Age of older parent	-0.000 (0.002)	-0.002 (0.002)	
Children			
Number of children	0.026^{+} (0.016)	0.024 (0.017)	
Youngest child under 5	-0.004 (0.019)	0.001 (0.020)	
Equivalised HH income (baseline=Low income)			

	(1) Share of Childcare By Man in the HH	(2) Share of Childcare By Man in the HH	(3) Share of Childcare By Man in the HH
Middle Income		0.020 (0.031)	0.023 (0.029)
High Income		0.038 (0.044)	0.047 (0.038)
Constant	0.191* (0.085)	0.249** (0.091)	0.236*** (0.019)
Observations	576	470	470
Adjusted R^2	0.008	0.005	-0.001

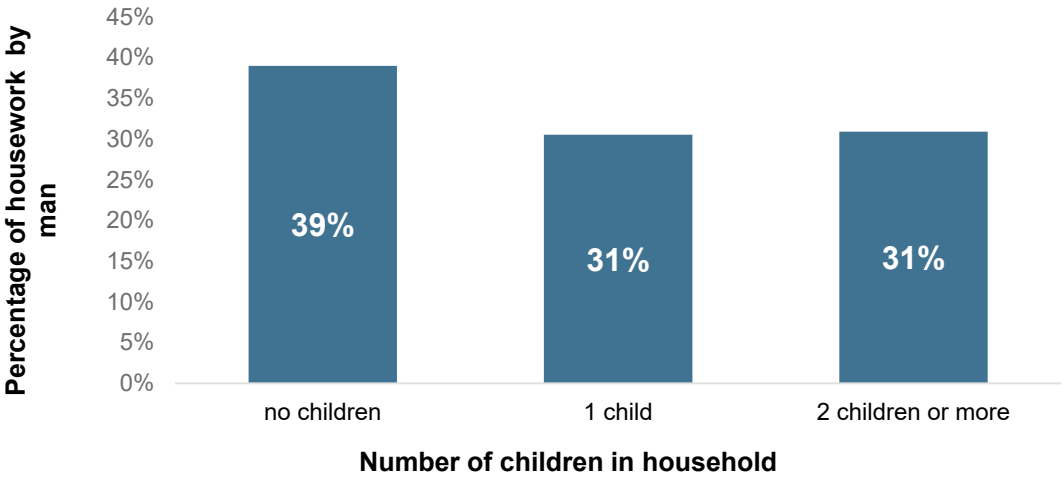
*** p<0.001, ** p<0.01, * p<0.05, + p<0.1

The gendered division of housework

Figure 17 below presents the share of housework (including childcare) performed by the man in the household, by the number of children in the household. In childless households (in which the couple is between the ages of 25-55), men perform 39% of total housework. In comparison, in households with children men perform 31% of the housework. [33] While this result suggests that men do a smaller proportion of housework after the couple has a child, the pattern might also be driven by differences between households that do and do not have children (for instance, households with no children might be more egalitarian in their gendered attitudes).

[33] These differences are statistically significant at p<0.05.

Figure 17 The share of housework performed by men, by number of children, n = 899



Appendix 2. Qualitative research method

Sample selection

We designed the interview sample to include participants who different from each other on three key characteristics: household income, family earning model and geographic location.

1. Household income

According to the literature, economic factors (such as childcare costs and the wages people are prepared to accept) are a central driver of parental decision making (IPPR, 2014). Higher income is associated with the ability to afford childcare as well as with more egalitarian attitudes. To explore this in the qualitative work, we sought to include households in three groups based on pre-tax household income.

- In all areas outside of London we used the following categories: low-income (≤£30,000), middle-income (£30,000-£60,000), and high-income (≥ £60,000).
- In London, due to higher prices, we used higher categories: low-income (≤£35,000), middle-income (£35,000-£65,000), and high-income (≥ £65,000).

These categories were chosen for a number of reasons:

- We used gross income and round numbers to make it easy to ask potential interviewees about their past income (people tend to remember gross income better than net income).
- We chose £30,000 as the upper bound for the low-income category because about 50% of the non-retired population earn less than £30,000.[34] In other words, we chose to underweight low income households. This is because low income households are less amenable to behavioural interventions that do not change financial incentives.
- We chose £60,000 as the upper bound of the middle-income category because it is roughly the lower bound of the gross household income of the top income quintile.[35]

When sampling the participants for our interviews, we included more middle and high income couples because their decision-making is likely to be less constrained by financial and other structural factors and hence more influenced by behavioural factors. In contrast, low income couples are less likely to be amenable to behaviour change in terms of division of childcare, given the strong financial limitations of their situation.

[34] The median equivalised household income in the UK in 2015/16 was £28,481 (ONS, 2017b).
[35] The lower boundary of the gross household income of the top income quintile was £57,824 (which is presented as £1112 per week in the ONS publication. (ONS, 2017c).

Moreover, recruitment of low-income couples proved challenging, as they were less likely to respond and agree to interviews.

2. Family earning model

To understand how different couples make decisions about the division of childcare, we needed to interview couples who varied in terms of their division of work and childcare responsibilities. We therefore sought to include an equal number of couples with:

- A ‘male breadwinner' model where the man is working full-time and the woman is working part-time or less (including not at all), suggesting that the woman is the main carer;
- A 'non-male breadwinner' model where the woman is working full-time and the man is working part-time or less (female breadwinners), or both partners have similar working hours (dual-earner model), suggesting that childcare responsibilities are shared more equally.

3. Geographic location

We also took into account the socio-economic ‘North-South’ divide, trying to achieve an approximately equal share of participants from the South-East and the rest of the UK.

Data collection

Given our target population, we reached out to childcare providers across England to get in touch with couples for our interviews. The contracted providers who agreed to help us received an email with our contact details and a link to an online screening survey to distribute to their clients. The purpose of the screening survey was to ensure that we obtained a sample of parents matching our criteria. If parents were interested in participating, they were asked to complete the survey and provide their contact information.

We then arranged phone or in person interviews with the couples that matched our criteria. We interviewed each parent separately to capture the views of both parents, as well as to contrast them and understand the decision-making dynamic from the perspective of both members of the couple. When both members of a couple had completed the interview, they each received a £10 Amazon voucher.

Interview key

Type of instruction
● Bullet = prompt (these are not questions – they are there to provide guidance to the moderator if required)
Italicised: provides extra information on the sort of answers/categories you might expect in an answer.
Underlined = instructions for the interviewer
* : potentially sensitive questions
NB. Not all prompts will be necessary during discussions and their use should based on the interviewer's assessment of time and relevance.

Interview guide

Introduction and background
a) **In person**: Hi my name is XXX and I work for a research company called the Behavioural Insights Team from London. Thanks for agreeing to speak to me today. Present the consent form to interviewee: This consent form includes some information about this research project but in short, we are interested in the decisions parents make around the division of childcare. This is for a research project commissioned by the Government Equalities Office and I'm happy to share their contact information with you[36]. We will record the interview so we can type it up later, but everything you say will anonymised and your answers will not be linked back to you, so feel free to speak openly. We also won't share anything you say with your partner. Please read through this form and sign at the bottom if you are happy to take part. You will receive a £10 voucher for your participation, we'll give it to you straight after the interview. Do you have any questions? Do you consent to being interviewed as part of this project? Once you have consent, start the voice recorder and state Interview ID number (such as 'LD01mMB'). This interview will take around 45 minutes. There are no right or wrong answers and you don't have to answer a question you're not comfortable with. If you don't

[36] Share this contact information if needed : Lauren Probert : Lauren.PROBERT@education.gov.uk

understand a question, just let me know. You can also stop the interview at any time without giving me a reason.

Do you have any questions before we start?

b) **Over the phone**: Hi my name is XXX and I work for a research company called the Behavioural Insights Team from London. Thanks for agreeing to speak with me. Is this [name]?

Once you have checked that you are talking to the right person, ask about consent:

You should have received a consent form by email in advance. Did you have a chance to read it?

In short, we're interested in how parents make decisions the division of childcare and if you agree to participate, I will ask you questions about your personal experiences with decisions around parental leave and return to work. This is for a research project commissioned by the Government Equalities Office and I'm happy to share their contact information with you[37].

We will record the interview so we can type it up later, but everything you say will anonymised and your answers will not be linked back to you, so feel free to speak openly. We also won't share anything you say with your partner.

The interview should take around 45 minutes of your time and you will be given a £10 voucher code on completion of the interview.

Do you have any questions about the consent form? Do you consent to being interviewed as part of this project?

Once you have confirmation of consent, start the voice recorder and state Interview ID number (such as 'LD01mMB').

Just to emphasise that there are no right or wrong answers and you don't have to answer a question if you're not comfortable with. If you don't understand a question, just let me know. You can also stop the interview at any time without giving me a reason.

Do you have any questions before we start?

0. Introductory questions	**5 min**

1. Could you tell me a bit about yourself?

- Where are you from, how long have you lived there?

2. If working: Could you tell me a bit about where you work?

[37] Share this contact information if needed : Lauren Probert : Lauren.PROBERT@education.gov.uk

If not working: Could you tell me a bit about where you worked before you had the baby?

- What do you do? How long have you been with the company?
- What is your working pattern at the moment? How many days/hours do you work/work from home?

3. Can you tell me a bit about your child/son/daughter?

- How old is your child now?

N.B. these are icebreaker questions, so short answers are good.

I. Understanding couples: attitudes & social norms	**7 min**

First, we would like to discuss the division of childcare in the general population.

4. Thinking about society in general, how do you think childcare responsibilities should be divided within a couple?

- If not mentioned: *How about parental leave?*
- How much should a mother work when they have a child under school age (e.g. part-time, full-time, not at all)? And a father?
- Should there be a main breadwinner/carer? Do you think that one parent tends to be more suited to caring? Should the division of childcare be based on income (e.g. the higher earner should stay at work)?
- Why?
- Do you think this is a common view? Why/why not?

5. How have people you know divided childcare responsibilities between the mother and the father?

- If not mentioned: *How about parental leave?*
- Specific groups: E.g. family (siblings, parents), friends, colleagues, neighbours, classmates, etc.

6. Thinking about the UK, how do you think most couples divide childcare between the mothers and the fathers?

- If not mentioned: *How about parental leave (i.e. maternity or paternity leave)? How do you think most couples in the UK share the leave?*

II. Parental leave	**5 min**

Moving on now to your personal experience, I've got a few questions about maternity and paternity leave.

7. How much leave did each of you take when the baby was born? Did you use Shared Parental Leave?

- If they don't know what Shared Parental leave is, explain briefly.[38]
  If they didn't take it: **Why?**

8. Could you describe how you and your partner made the decisions about the amount of leave each of you took?

NB. You focus the questions on the decision making process (you've already asked about what the division looks like).

- How much did you discuss this with your partner?
- How did you feel discussing these questions with your partner?*****

9. What factors influenced how much leave you each decided to take? We'd like you to think about both maternity and paternity leave, as well as Shared Parental Leave (even if you didn't take it.)

NB. Ask all prompts.

- [Information] What kind of information did you use when deciding about leave?
- [Financial factors] How would you describe the role of financial considerations?
  - Did you compare the pay rate of maternity leave to shared parental leave?
- [Workplace] How did your workplace or employer influence your decisions around leave?
- [Emotions] Did emotions (such as excitement, fear, joy, or guilt) play role?*****
- [Social influence] Were there specific people who influenced your decisions around the division of leave? Was there somebody in particular to whom you compared yourself?
- [Other] Is there anything else that was important for how you divided the leave available to you and your partner?

III. Division of childcare: Decision-making & Negotiation	**7 min**

We'll now move on to the next section which is about how you and your partner make decisions about household chores and who looks after the child.

10. Before you had children, how did you divide up household chores?

- Can you list who did which tasks? E.g. cooking, cleaning, laundry, repairs, etc.

11. How about since your child was born? How are household chores currently divided in your household?

[38] Shared Parental Leave (SPL) allows employed parents to share leave and pay with their partner to care for children from birth until their first birthday. Parents are able to share a pot of leave, and can decide to be off work at the same time and/or take it in turns to have periods of leave to look after the child.

Can you list who does which tasks? Household chores: cooking, cleaning, laundry, repairs, etc.

12. How about childcare responsibilities? For example, does one of you work part-time or flexible hours to care for your child?

- Childcare: preparing meals, feeding, changing nappies, laundry, baths, leisure etc.

13. Could you describe a bit how you and your partner made the decisions around the sharing of childcare and household work?

NB. You should focus the questions on the decision making process (you've already asked about what the division looks like).

- How much did you discuss this with your partner? Why/not?
- When did you first discuss this? Did you discuss it again later?
- How did you feel discussing these questions with your partner?*****
- What was *not* discussed? Would you say some things were just assumed?
    - Such as: the kind of tasks each partner will be in charge of, etc.
- Did the way you discussed things change over time? If so, how?
    - Such as: was it more/less structured or more/less informed before/after the child was born

14. How do you feel about the current division of responsibilities?

- Are you happy with it?*

IV. Division of childcare: Factors & Drivers	**20 min**

Next we'd like to ask a few questions to understand in a bit more detail what factors influenced your decisions around the division of childcare.

15. What factors influenced how you and your partner have divided childcare?

- What would be the top three factors?
- Did these factors change over time?

16. [Information] What kind of information did you use when deciding how to divide childcare between the two of you?

- How did you access this information? E.g. employer, own search, peers
- Would you say you had all the information you needed? If not, what would have been helpful? **Did this change over time?**

17. [Financial factors] How would you describe the role of financial considerations in deciding about division of childcare?*

- Did you compare your and your partner's income?*****
- Did you take into account the long-term impact of this decision? Did you consider

future earnings and career opportunities?* And how your division of childcare will affect each of you in the long-term?*

- **Did any of this change over time?**

18. [Workplace] How did your workplace or employer influence your decisions around division of childcare?

- What role did your employer's family policies play? Were flexible working options easily available?
- What was your line manager's attitude?
- **Did any of this change over time?**

19. [Emotions] Did emotions play a role in deciding about the division of childcare?*

- For example feeling attached to the child, feeling happy, excited, stressed, fearful, guilty, feeling inadequate, depressed (post-natal)
- What are the main emotions you feel in relation to childcare?
- How would you describe your feelings of attachment and how they changed over time?*
- How do you feel about sharing childcare?* How do you feel about your partner looking after your child without you? How do you feel about looking after your child alone?
- How did you feel about combining work and childcare?* Do you feel you spend enough time with your child/at work?* Do you feel being strained between the role of parent and employee?
- **Did any of this change over time?**

20. [Social influence] Were there specific people who influenced your decisions around the division of childcare?

- Was there somebody in particular to whom you compared yourself?
- E.g. colleagues, friends (female, male?), neighbours, parents, classmates, etc.

21. Is there anything else that was important for how you divided childcare?

V. Division of childcare: Opinions & Suggestions	**5 min**

22. If you could change something about the division of childcare and work responsibilities, what would it be?* This could be related to government or employer policies.

- If not mentioned: *How about parental leave?*
- What makes you say that?
- Have you tried to address that issue? Why/not?

- Was there anything else that you've changed or tried to change?

23. In conclusion, setting aside the financial factors (such as formal childcare costs), what do you think are the main reasons why childcare is not currently shared equally?

- If not mentioned: *How about parental leave?*

VI. Close	**1 min**

OK, those were all my questions.

24. Do you have any questions or comments? Or are there things you would like to clarify? Thank you for your time. As mentioned, nothing you said will be shared with you partner. We also ask you not to discuss the content of this interview with your partner, if he/she has not completed it yet.

Finally, I need to ask you a few demographic questions to help with the research.

Please fill out the demographic questionnaire on your observation sheet at the end of interview.

Many thanks for answering all these questions. As promised, you will get an Amazon voucher to thank you for your time.

If in person: Give the participant the Amazon voucher.

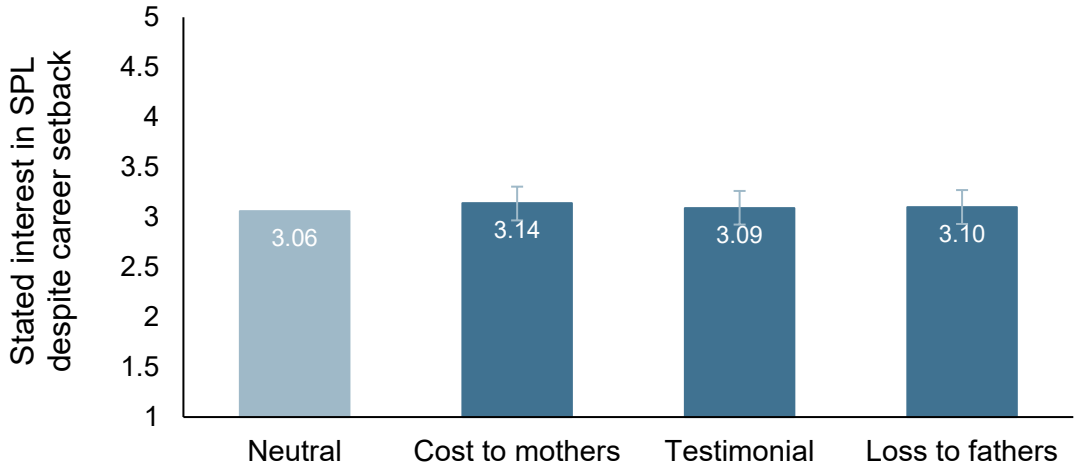
If over the phone: Tell participants that we will send the codes for the two Amazon vouchers via email once both partners have completed their interviews.

Data analysis

The interviews were recorded and transcribed verbatim. The interview analysis was conducted using NVivo Plus qualitative data analysis software. All interviews were analysed by coding different segments of the text with labels that corresponded to themes and behavioural dynamics that had been either identified during the literature review (such as 'social norms', 'relative income' or 'emotions'), or that emerged from data (such as 'home childcare' or 'SPL loss aversion'), and linking these to participant characteristics such as attitudes or family earning model.

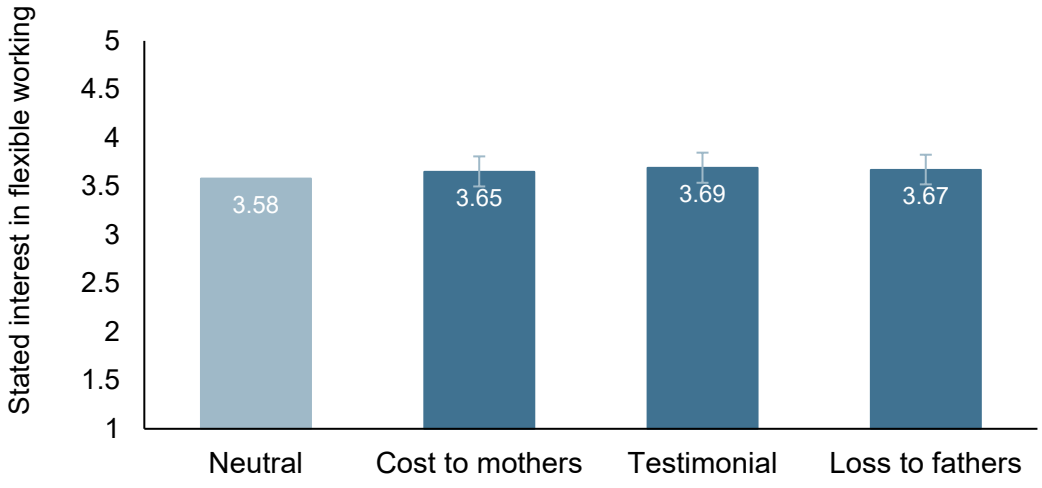
Appendix 3. Additional results for Experiment 2

Figure 18 The effect of the messages on stated intention to take SPL despite career setback



N=1600
** p<0.01, * p<0.05, + p<0.1
Note: Secondary analysis

Figure 19 The effect of the messages on stated intention to request flexible working



N=1600
** p<0.01, * p<0.05, + p<0.1
Note: Secondary analysis

Appendix 4. Experiment 1. Testing messages to increase paternal involvement

Screening

Participants went through the screening questions before they could access the main test. Only participants that answer all questions according to the bolded answers below were then taken to the actual test.

- Are you single or in a relationship ? (single/ **in a relationship**)
- Are you in a same-sex relationship? (Yes / **No** / Prefer not to say)
- Are you and your partner planning to have a child? (Please choose the time that applies) (**in the next year / two years/ three years / four years /** later than four years / we are not planning to have children

Procedures

The questions included in the experiment are below.

After the participants were shown one of the messages, they asked whether they would like to see more related information (below). This was designed to measure their interest and willingness to spend more time on the platform voluntarily, and at their own cost following the messages they have seen.

Would you like to read a bit more about Shared Parental Leave and your right to request flexible working?

- Click here to see 5 brief tips from parents that took Shared Parental Leave.
- Click here to see 3 short points about your rights relating to flexible working.
- Click here to see both.
- Click here to skip both and continue to the next screen.

In the next screen participants were asked to give brief feedback about the message they saw by answering the following questions:

How useful did you find the message you saw at the beginning?

- Not Useful at all
- Slightly Useful
- Moderately Useful
- Useful
- Very Useful

2. To what extent did you like or dislike that message?

- Strongly disliked
- Slightly disliked
- Neither liked nor disliked
- Slightly liked
- Strongly liked

3. How did you find the length of this message?

- Much too long
- A bit little too long
- About right
- A little too short
- Much too short

Next, participants were asked 3 questions about their intentions to use Shared Parental Leave and flexible working arrangements.

How likely are you to use Shared Parental Leave in the future?

- Very unlikely
- Somewhat unlikely
- Neither likely nor unlikely
- Somewhat likely
- Very likely

If you were told that taking SPL could potentially set your career back a bit – how likely would you then be to use it?

- Very unlikely
- Somewhat unlikely
- Neither likely nor unlikely
- Somewhat likely
- Very likely

How likely are you to request flexible working arrangements from your employer? By flexible working arrangements we mean anything from reducing your work hours to working from home or simply adapting your start and finish time.

- Very unlikely
- Somewhat unlikely
- Neither likely nor unlikely
- Somewhat likely

- Very likely

Payments

Participants received a flat payment for completing the survey.

Sample size and randomization

The randomisation on Predictiv is conducted as follows: We first specify a number of participants we require to complete the survey (the target N), participants are then randomly allocated into conditions when they enter the test. Finally, the test closes when the specified target N is reached. This results in sample sizes per arm that are similar but not identical. In this experiment the total sample was 1600, as follows:

- Arm 1 (Neutral): 407
- Arm 2 (Cost to mothers): 396
- Arm 3 (Testimonial): 393
- Arm 4 (Loss for fathers): 404

Results - regression tables

Table 4 Regression results of main analysis

	Secondary: Engagement	Primary: Stated interest in SPL	Primary: Stated interest in SPL (career setback)	Primary: Stated interest in flexible working
Cost to mothers	.044 (.050)	-.044 (.084)	.080 (.086)	.074 (.079)
Testimonial	.041 (.049)	-.010 (.083)	.038 (.086)	.112 (.079)
Loss to fathers	.056 (.049)	.029 (.083)	.045 (.086)	.093 (.078)
Constant	.577 ** (.034)	3.582 ** (.058)	3.580 ** (.054)	3.057 ** (.060)
N	1,600	1,600	1,600	1,600
R-squared	.001	.001	.001	.001
Robust standard errors in parentheses; ** p<0.01, * p<0.05, + p<0.1				

Table 5 Regression results of main outcome measures, including interaction terms (exploratory analysis)

	Primary: Engagement	Secondary: Stated interest in SPL	Secondary: Stated interest in SPL (career setback)	Secondary: Stated interest in flexible working
Cost to mothers	.164 (.147)	-.121 (.252)	-.069 (.258)	-.385 (.237)
Testimonial	.259 + (.144)	-.270 (.248)	-.196 (.257)	-.337 (.238)
Loss to fathers	.306 * (.147)	.460 + (.251)	.486 + (.260)	.068 (.236)
Age (18 – 24 = baseline)	-.008 (.037)	.114 + (.063)	.114 + (.065)	.069 (.059)
Income (Less than £10k = baseline)	.025 (.023)	-.070 + (.040)	-.152 ** (.042)	-.031 (.038)
Education (None = baseline)	.032 ** (.012)	.044 * (.020)	.054 ** (.021)	.030 (.019)
Currently has children (Yes = baseline)	.182 * (.074)	.276 * (.118)	.041 (.126)	-.039 (.112)
Cost to mothers * No children	-.084 (.106)	.069 (.168)	.118 (.178)	.346 * (.160)
Testimonial* No children	-.155 (.102)	.190 (.164)	.163 (.176)	.329 * (.162)
Loss to fathers* No children	-.179 + (.104)	-.306 + (.169)	-.317 + (.177)	.024 (.161)
Constant	.118 ** (.136)	3.050 ** (.227)	3.047 ** (.244)	3.492 ** (.215)
N	1,600	1,600	1,600	1,600
R-squared	.014	.022	.017	.012
Robust standard errors in parentheses; ** p<0.01, * p<0.05, + p<0.1				

The materials

Arm 1: Neutral 1/3

The Government seeks to support new parents through Shared Parental Leave and through Flexible Working.

Sharing parental leave

In 2015, the Government introduced Shared Parental Leave (SPL), which gives many parents the legal right to divide the first year of leave between them. You may be able to get SPL if you're having a baby or adopting a child.

If you're eligible for SPL you can use it to take leave in blocks separated by periods of work, instead of taking it all in one go.

To start SPL the mother must end her Maternity Leave. If she doesn't get Maternity Leave her partner might still get SPL as the mother can 'create' SPL by ending her Maternity Allowance early.

If you're eligible you can take the remaining leave as SPL (52 weeks minus any weeks of maternity or adoption leave).

Arm 1: Neutral 2/3

One example of a way to share SPL is for the father to:

- spend a month or more with their partner and child after the birth; and
- take another 2 months off down the track to help their partner return to work earlier.

Arm 1: Neutral 3/3

Working flexibly

Since 2014 most employees have had the legal right to request flexible working arrangements from their employer.

This can allow you, for instance, to work remotely, adapt your start and end times, or work part-time.

Arm 2: Cost to mothers 1/2

Working women earn about 18% less than working men. Why is this?

One of the main reasons is women's caring responsibilities. Women put their career on hold to take care of their children, and often struggle to make up ground on their return to work.
And it is not just that mothers take time off work after their baby is born, they often reduce their working hours, or even change jobs, until their children are in school.

This means that mothers are less likely to reach their full potential when it comes to their careers, compared to fathers.

Arm 2: Cost to mothers 2/2

The good news is that a growing number of fathers are sharing childcare responsibilities more equally with their partners.

In 2015, the Government introduced Shared Parental Leave, which gives many parents the legal right to divide the first year of leave between them.

Fathers are increasingly taking longer periods of leave to care for their children, as well as using flexible working arrangements (such as working from home or reducing their hours), when their children are young. This gives mothers more flexibility to make career choices that work better for them and their families.

Arm 3: Testimonial 1/4

For this research, we worked with fathers who kindly agreed to talk to us about their experiences.

We would like to share one of their stories with you.

Arm 3: Testimonial 2/4

Hi, I'm Andrew and I'm Liam's dad – he will be 2 next month. I'm also happily married to Sarah. I wanted to tell you a bit about my experience as a new dad.

Early on when Sarah was pregnant I promised myself I would be an equal parent to Liam. When I was young my dad was barely around and I was determined I wouldn't be like that with my boy.

I took a month off work when Liam was born. It was really wonderful to have that time at home and get to know my little man – even if it was exhausting! I also felt good knowing the burden wasn't all on Sarah, and that I was able to be there to help her recover from the pregnancy.

Arm 3: Testimonial 3/4

The month went by fast and I went back to work. As time went on I focused more on work and found I was making less of an effort at home.

We kind of fell into a groove where I became the assistant rather than a co-parent - I'd play with Liam when he was calm and happy but whenever he kicked off a bit Sarah would swoop in and take over.

Looking back now I think I was too easy on myself. I could see Sarah was struggling, but I'd think "I'm doing my part by working and providing for my family", so it seemed fair that Sarah should have a bit more responsibility at home than me. Later I realised my own dad probably thought the same thing.

Arm 3: Testimonial 4/4

If I could go back to those early months, I'd do a few things differently. Here's a few things I'd wish I'd known.

Talk to your partner to keep the early teamwork going. Talk before and after the baby is born, and then keep talking. It's easy to fall into a groove where one parent goes back to work and the other ends up doing all the childcare. If that happens think hard together about whether that really works for the both of you.

Work can be more flexible than you expect. In my mind, I'd done my bit by taking the first month off – afterwards I never really thought about taking more time off. I now realise it would have helped Sarah a lot if I had used shared parental leave, or one of the flexible working policies my work offers, or even if I had just taken a morning off every few weeks.

Arm 4: Loss to fathers 1/3

"Two weeks is not enough for a man. It's a massive life changing event and you've got to go back to work in thirteen days. You do miss out, you miss out massively."

- G, a new father, Bristol , 2017.

Many fathers think that 2 weeks of paternity leave is just not enough. Fathers feel that they are missing out on the early experience of bonding with their baby as well as the chance to really be there for their partner and newborn child.

It is not only fathers who are missing out but also their children. In households in which fathers are more involved early on, the child's IQ, social skills, and wellbeing tend to be better.

Arm 4: Loss to fathers 2/3

Shared Parental Leave gives fathers the opportunity to take extra time off – early on.

To reduce the number of fathers missing out on the benefits of taking leave when their child is born, the Government introduced Shared Parental Leave (SPL), which gives most new fathers the opportunity to take more time off to be with their child.

If you don't request SPL, you will lose the opportunity to share up to a year of leave with your partner.

One example of a way to share SPL is for the father to:

- spend a month or more with their partner and child after the birth; and
- take another 2 months off down the track to help their partner return to work earlier.

Arm 4: Loss to fathers 3/3

Flexible working gives fathers another way to take control of their work life balance.

Since 2014 most employees have had the legal Right to Request Flexible Working arrangements from their employer.

This can allow you, for instance, to work remotely, adapt your start and end times, or work part-time.

Appendix 5. Experiment 2. Increasing the interest of prospective parents in Shared Parental Leave

Screening

Participants went through the screening questions before they could access the main test. Only participants that answer all questions according to the bolded answers below were then taken to the actual test.

- Are you single or in a relationship ? (single/ **in a relationship**)
- Are you in a same-sex relationship? (Yes / **No** / Prefer not to say)
- Are you and your partner planning to have a child? (Please choose the time that applies) (**in the next year / two years/ three years / four years / later than four years** / we are not planning to have children

Procedures

Participants who passed the screening questions were asked the following question before being given the intervention material to read.

To what extent are you familiar with Shared Parental Leave?

- Not at all - I haven't heard of it before
- Slightly - I have heard about it but I don't know much about how it works or whether I would be eligible
- Somewhat - I know a bit about it but am not entirely sure how it works or whether I would be eligible
- Moderately - I know quite a lot about it but am not entirely sure how it works or whether I would be eligible
- Extremely - I know exactly how it works and whether I would be eligible

After reading the material (see in the bottom of this appendix), participants received the following comprehension questions. Note that the correct answer is in bold.

1. What is the maximum amount of leave that parents can share between them when using Shared Parental Leave?
   a) 42 weeks
   b) 52 weeks
   c) 50 weeks
   d) I don't know

2. Ian and Emma are a young couple having a child. Emma started working for her current employer 1 month before she became pregnant. Assume Emma and Ian fulfill all other eligibility criteria - will she be eligible for SPL by the due date?
   a) Yes, because she would have been with her employer long enough
   b) No, because she wouldn't have been with her employer long enough
   c) Maybe, this depends on her employer's policy
   d) I don't know

3. Ian is eligible and would like to take SPL but he knows that one of his colleagues has not been allowed to take SPL. Should Ian be allowed to take SPL?
   a) No – it can't be that one employee gets to take SPL and the other doesn't
   b) Maybe- this depends on the specific employer policy
   c) Yes - the employer must allow Ian to take SPL
   d) I don't know

4. Emma and Ian want to start taking SPL two weeks after the due date of their baby. When does Emma have to notify her employer about taking SPL?
   a) 4 weeks before the due date
   b) 8 weeks before the due date
   c) 6 weeks before the due date
   d) I don't know

5. Emma is currently 8 months pregnant. She has worked for a while but is not going to be eligible for SPL by the time her baby is due. Ian has been an employee of a consulting firm for over a year. Will Ian be eligible for SPL?

   a) Yes, irrespective of Emma's work history
   b) This depends on Emma's working history
   c) No, irrespective of Emma's work history
   d) I don't know

After completing the comprehension questions, participants were asked the following questions about perceived effort and stated intentions. These are self-reported and not incentivised.

1. On a scale from 1 to 5, how much effort do you think applying for SPL requires?
    - Requires very little effort
    - Requires some effort
    - Requires moderate effort
    - Requires quite a lot of effort
    - Requires a lot of effort
    - I don’t know

2. How likely are you or your partner to use the Shared Parental Leave scheme in the future?
    - Very unlikely
    - Somewhat unlikely
    - Neither likely nor unlikely
    - Somewhat likely
    - Very likely

Finally, participants were asked if they would like to read further information about SPL as follows:

Finally, would you like to read a bit more about Shared Parental Leave?

- Click here to see 5 brief tips from parents that took SPL.
- Click here to see 2 short points about the possibility to take SPL in blocks instead of taking it all in one go.
- Click here to see both.
- Click here to skip both and continue to the next screen.

Payments

Participants received a flat payment for completing the survey as well as an additional variable payment for each additional comprehension question that they answered correctly.

Sample size and randomization

The randomisation on Predictiv is conducted as follows: We first specify a number of participants we require to complete the survey (the target N), participants are then randomly allocated into conditions when they enter the test. Finally, the test closes when the specified target N is reached. This results in sample sizes per arm that are similar but not identical. In this experiment the total sample was 1244 as follows:

- Arm 1 (Gov.uk): 384
- Arm 2 (Simplified): 435
- Arm 3 (Simplified + legal entitlement): 425

Results - regression tables

Table 6 Regression results of main analysis

	Primary: Comprehension	Primary: Engagement	Secondary: Perceived effort	Secondary: Stated interest
Simplified	.741 ** (.078)	.0133 (.046)	-.102 (.074)	.135 (.085)
Simplified + Entitlement	.963 ** (.078)	-.019 (.046)	-.175 * (.076)	.104 (.086)
Constant	1.484 ** (.051)	.495 ** (.034)	3.182 ** (.055)	3.140 ** (.061)
N	1,244	1,244	1,244	1,244
R-squared	.109	0.000	0.004	0.002
Robust standard errors in parentheses; ** p<0.01, * p<0.05, + p<0.1				

Table 7 Regression results of comprehension rates by question

	Proportion of participants giving the correct answer				
	Q1	Q2	Q3	Q4	Q5
Simplified	.355 ** (.030)	.370 ** (.032)	.006 (.033)	-.056 * (.025)	.066 ** (.028)
Simplified + Entitlement	.355 ** (.030)	.430 ** (.032)	.102 ** (.031)	-.020 (.027)	.096 ** (.029)
Constant	.151 ** (.018)	.294 ** (.023)	.677 ** (.0124)	.182 ** (.020)	.180 ** (.020)
N	1,244	1,244	1,244	1,244	1,244
R-squared	.112	.142	.011	.004	.009
Robust standard errors in parentheses; ** p<0.01, * p<0.05, + p<0.1					

Table 8 Regression results of main outcome measures, including covariates

	Primary: Comprehension	Primary: Engagement	Secondary: Perceived effort	Secondary: Stated interest
Simplified	.735 ** (.077)	.018 (.046)	-.117 (.074)	.141 + (.083)
Simplified + Entitlement	.955 ** (.078)	-.021 (.046)	-.184 * (.076)	.089 (.084)
Gender (male = baseline)	-.065 (.071)	.029 (.042)	-.024 (.066)	.280 ** (.075)
Age (18 – 24 = baseline)	.038 (.071)	.106 * (.043)	-.173 * (.067)	.234 ** (.074)
Income (Less than £10k = baseline)	.071 + (.041)	.014 (.022)	.063 + (.037)	.082 + (.043)
Education (None = baseline)	.086 ** (.021)	.018 (.012)	.051 * (.020)	.061 ** (.022)
Prior knowledge of SPL (Not at all = baseline)	-.004 (.029)	-.000 (.018)	.023 (.030)	.119 ** (.034)
Constant	.910 ** (.164)	.234 ** (.100)	2.852 ** (.162)	2.064 (.183)
N	1,244	1,244	1,244	1,244
R-squared	.127	.010	.021	.057
Robust standard errors in parentheses; ** p<0.01, * p<0.05, + p<0.1				

The materials

Arm 1: gov.uk information about SPL - screen ¼

Length of leave

You may be able to get Shared Parental Leave (SPL) if you're having a baby or adopting a child.

To start SPL the mother must end her maternity leave or, if she is not eligible for maternity leave, she can end her Maternity Allowance to enable her partner to get SPL.

If you are eligible you can take the remaining leave as SPL (52 weeks minus any weeks of maternity / Maternity Allowance).

Note that the mother must take at least 2 weeks of Maternity Leave immediately after birth for health and safety reasons.

An example

A mother and her partner are both eligible for SPL. The mother ends her maternity leave after 12 weeks, leaving 40 weeks available for SPL. The parents can choose how to split this.

Arm 1: gov.uk information about SPL - screen 2/4

Eligibility criteria:

Each parent qualifies separately for Shared Parental Leave (SPL). You can also share the leave between you if you're both eligible.

To qualify for SPL you must:

- be eligible for leave, or Maternity Allowance (or your partner must be).
- have been employed continuously by the same employer for at least 26 weeks by the end of the 15th week before the due date.
- stay with the same employer while you take SPL

And - during the 66 weeks before the week the baby's due (or the week you're matched with your adopted child) your partner must:

- have been working for at least 26 weeks (they don't need to be in a row)
- have earned at least £390 in total in 13 of the 66 weeks (add up the highest paying weeks, they don't need to be in a row)

This can be as an employee, worker or self-employed person. Your partner doesn't have to be working at the date of birth or when you start SPL.

Arm 1: gov.uk information about SPL - screen 3/4

Applying for Leave

To get Shared Parental Leave (SPL) you must:

Give your employer written notice of your leave dates at least 8 weeks' before you go on leave.

The mother must either:

- return to work, which ends any maternity or adoption leave
- give their employer 'binding notice' of the date when they plan to end their leave.

Your partner must apply to their own employer if they also want SPL.

Arm 1: gov.uk information about SPL - screen 4/4

To summarise:

Each parent qualifies separately for Shared Parental Leave (SPL). You can also share the leave between you if you're both eligible.

To qualify for SPL you must:

- be eligible for maternity pay or leave, adoption pay or leave or Maternity Allowance (or your partner must be).
- have been employed continuously by the same employer for at least 26 weeks by the end of the 15th week before the due date.
- must stay with the same employer while you take SPL

During the 66 weeks before the week the baby's due (or the week you're matched with your adopted child) your partner must:

- have been working for at least 26 weeks (they don't need to be in a row)
- have earned at least £390 in total in 13 of the 66 weeks (add up the highest paying weeks, they don't need to be in a row)

Applying for Leave

To get Shared Parental Leave (SPL) you must:

Give your employer written notice of your leave dates at least 8 weeks' before you go on leave.

The mother must either:

- return to work, which ends any maternity or adoption leave
- give their employer `binding notice' of the date when they plan to end their leave.

Your partner must apply to their own employer if they also want SPL.

Arm 2: Simplified information - screen 1/5

Length of leave

Shared Parental Leave (SPL) allows eligible parents to share up to 50 weeks of leave however they like.

The length of leave is 52 weeks minus any weeks of Maternity Leave (or Maternity Allowance) the mother has taken before the couple takes SPL.

The couple can:

- split the remaining leave between them, or
- give all the remaining time to the partner.

Note that the mother must take at least 2 weeks of Maternity Leave immediately after birth for health and safety reasons – which leaves 50 week of shareable leave.

Arm 2: Simplified information - screen 2/5

Eligibility criteria:

The first way to share leave is for both the mother and the partner to take SPL.

An example

A mother and her partner are both eligible for SPL.
The mother ends her maternity leave after 30 weeks, leaving 22 weeks available for SPL.
The parents can choose how to split this.

For both parents to be eligible for SPL each of them must:

- Start working for their employer at least 1 week before the pregnancy begins (and until the leave).
- In that time - earn £30 a week – in at least 13 of the weeks that they worked.
- Stay with this employer while taking SPL.

Arm 2: Simplified information - screen 3/5

Eligibility criteria:

The second way to share leave is for just the partner to take SPL.

For instance, if the mother is not eligible for SPL, or isn't in work when the baby is born.

An example

Only the partner is eligible for SPL.
The mother ends her Maternity Leave/Allowance after 30 weeks.
The partner can take the remaining 22 weeks of SPL.

For only the partner to be eligible:

The partner must:

- Start working for their employer at least 1 week before the pregnancy begins (and until the leave)
- Stay with this employer while taking SPL

Also, to allow the partner to take SPL the mother must have:

- Worked for 6 months or more in the year and 3 months before the due date (this doesn't have to be in a row)
- Earned at least £30 a week in any 13 weeks she worked.

Arm 2: Simplified information - screen 4/5

How to apply?

- Decide how you want to split the leave with your partner
- Give your employers written notice of your leave dates, including when the mother will end her Maternity Leave
- **You have to give notice 8 weeks or more before the leave begins.**

Arm 2: simplified information - screen 5/5

To summarise

For both the mother and the partner to take SPL, they must:

- Start working for their employer at least 1 week before the pregnancy begins
- In that time - earn £30 a week – in at least 13 of the weeks that they worked.

For just the partner to take SPL, the partner must:

- Start working for the employer at least 1 week before the pregnancy begins

To allow the partner to take leave, the mother must have:

- **Worked for 6 months or more** in the year and 3 months before the baby is due
- **earned at least £30 a week** in any of the 13 weeks she worked

How to apply?
Give your employer written notice 8 weeks or more before the leave begins.

Arm 3: Simplified information + legal entitlement - screen 1/5

Most new parents have the legal right to Shared Parental Leave. Your employer must allow you to take Shared Parental Leave if you are eligible.

Length of leave

Shared Parental Leave (SPL) allows eligible parents to share up to 50 weeks of leave however they like.

The length of leave is 52 weeks minus any weeks of Maternity Leave (or Maternity Allowance) the mother has taken before the couple takes SPL.

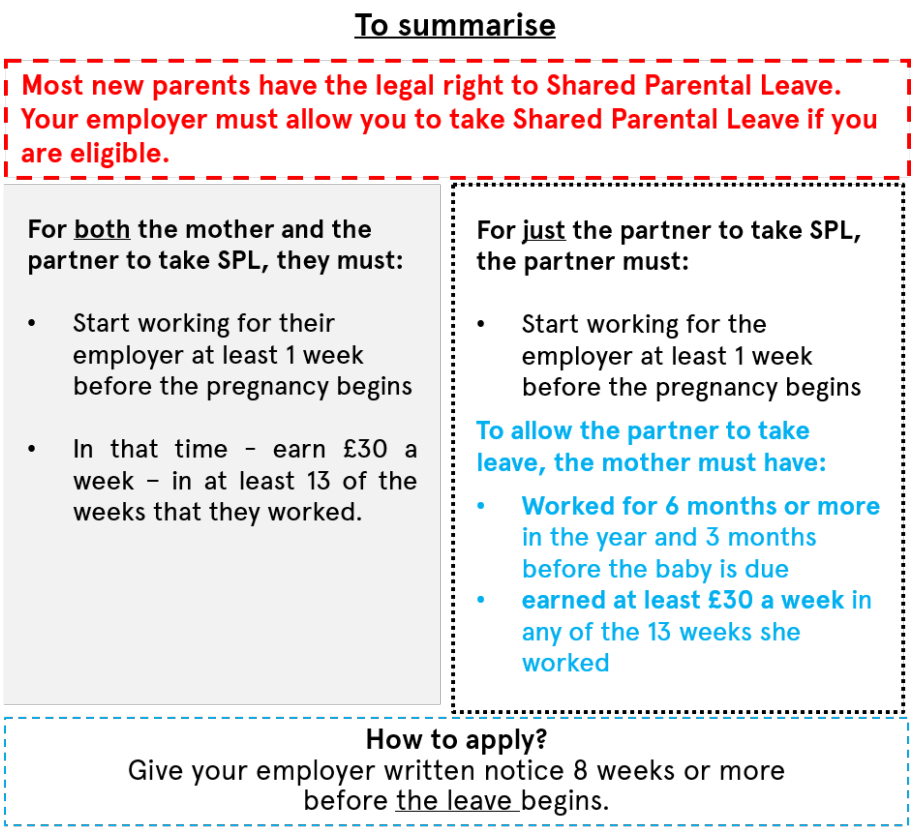
The couple can:

- split the remaining leave between them, or
- give all the remaining time to the partner.

Note that the mother must take at least 2 weeks of Maternity Leave immediately after birth for health and safety reasons – which leaves 50 week of shareable leave.

Arm 3: simplified information + legal entitlement - screens 2/5, 3/5, and 4/5 are identical to arm 2.

Arm 3: simplified information + legal entitlement - screen 5/5



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Glossary of key behavioural science terms

Anchoring	Using an initial piece of information to make subsequent judgments, even when the initial piece of information is irrelevant or arbitrary
Anticipated regret	The tendency to take into account the regret we might feel in the future when making decisions.
Cognitive load	Mental burden placed on cognitive resources (such as working memory), resulting in greater mental effort being required to perform a particular task
Cognitive dissonance	The feeling of distress or tension that occurs when people hold contradictory beliefs, or act inconsistently with their beliefs.
Commitment device	A tool which aims to help a person commit to a course of action or to help to bridge the gap between people's intentions and actions, by increasing the costs of failure.
Framing effects	The effect that the way a choice is presented has on an individual's decision-making.
Friction costs	Seemingly trivial or irrelevant details that require a small additional effort be made to perform a behaviour, and which disproportionately discourage performance of that behaviour.
Loss aversion	The strong preference people have for avoiding losses relative to acquiring gains of an equivalent amount.
Present bias	The tendency to place greater value on immediate rewards and discount those in the future.
Social norms	'Descriptive' social norms describe the general behaviour of other people, and this information has a strong influence on an individual's decision regarding whether to perform a particular behaviour.
Status quo bias	The preference towards maintaining the current state of affairs, whether that be through avoiding behaviours that could alter the status quo, favouring decisions that sustain it, or doing nothing.
Stereotypes	Over-generalised beliefs about the traits or characteristics of a particular group.

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