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Fathers taking leave: evaluating the impact of shared parental leave in the United Kingdom

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Abstract

We study the effect of the introduction of the UK Shared Parental Leave policy in 2015 on both the uptake and the length of leave taken by fathers. Using data from the UK Household Longitudinal Study and a regression discontinuity in time design, we find no evidence that the reform increased either uptake or length of paternal leave, reinforcing questions about its effectiveness.

KEYWORDS
parental leave reform, regression discontinuity in time, UK Household Longitudinal Study

JEL CLASSIFICATION
D13, J08, J13, J18

1 | INTRODUCTION

The birth of a child can fundamentally alter the shape of the working lives of parents, particularly mothers. Major differences between men and women in labour market participation and working hours primarily emerge around the birth of the first child and contribute to the 'motherhood penalty'; see, for example, Kleven et al. (2019) for five European countries and the United States, Costa Dias, Joyce and Parodi (2021) for the United Kingdom, and Kleven et al. (2024) for Austria. In the UK, the employment rate of women falls from above 90 per cent to below 75 per cent around childbirth, and employed mothers reduce their average weekly working hours from 40 to under 30 (Andrew et al., 2021). This is not the case for men.

Long periods of absence from paid work, as is the case in extended maternity leave, may affect mother's level of human capital and make returning to work more difficult. Cross-country studies suggest that protected periods of maternity leave of up to one year increase the return of mothers to work (Olivetti and Petrongolo, 2017), whilst longer absences can result in a reduced level of return.

Complementary parental leave policies (paternity leave, 'daddy months' or shared parental leave) can be an effective tool in facilitating an earlier return of mothers to work and a greater degree of sharing of caring responsibilities among parents, positively affecting the work–life balance of employees and reducing gender gaps. However, their design and uptake by parents is crucial to success.[1] For instance, in countries where well-paid shared parental leave and paternity leave are offered, it has been found that men take more parental leave and women spend more time in the workplace (Bartel et al., 2018; Patnaik, 2019). However, the UK ranks among the lowest across OECD and European Union countries in terms of the financial attractiveness of its family-friendly policies (Chzhen, Gromada and Rees, 2019).

Introduced in April 2015 alongside existing Maternity and Paternity Leave policies, the UK's Shared Parental Leave (SPL) was designed to enable working parents to share statutory paid leave, previously principally allocated to the mother. However, it applies only to a subgroup of working parents, is relatively poorly paid and requires a trade-off with maternity leave. Therefore, its uptake and effectiveness have been questioned. However, no causal analysis of its effects has been undertaken.

This paper aims to address this evidence gap. Given the policy's intention to encourage leave sharing, and thus transfer of leave from mothers to fathers, we focus on outcomes of fathers – uptake and the length of leave. We apply regression discontinuity in time (RDiT) to UK Household Longitudinal Study (UKHLS; University of Essex, Institute for Social and Economic Research [ISER], 2023) data to consider the effect among all eligible parents and groups who might be expected to benefit disproportionately, such as parents with comparable earnings or in high-income households, as well as highly educated parents and those working for large employers who are more likely to offer attractive policies. We find no evidence of a significant increase in leave uptake or length by fathers, overall and by most subgroups. This finding holds across a range of sensitivity analyses and is consistent with analogous analyses conducted for mothers.

Our study contributes to the growing body of literature that investigates the effectiveness of parental leave policies, which to date have produced mixed results. For instance, the reforms in Iceland and Quebec (Canada) are considered among the most successful in terms of uptake. Olafsson and Steingrimsdottir (2020) show that uptake increased by 80 percentage points in Iceland following the introduction of one month of leave earmarked for fathers. Patnaik (2019) shows evidence of a 50 percentage point increase in uptake upon the introduction of five weeks of well-paid paternity leave in Quebec. However, considering reforms in Denmark, which earmark leave for fathers but also permit sharing, Andersen (2018) finds a much smaller response.

Our analysis offers further insights into the debate regarding the design of parental leave policies. First, the effects of policy introduction seem to be larger than those of policy expansion (Canaan et al., 2022). Secondly, policy design matters. Cross-country studies such as Ray, Gornick and Schmitt (2010) and Castro-García and Pazos-Moran (2016) emphasise the role of generosity of payments, gender egalitarian design and non-transferable leave. All these elements are missing from the UK system. Aligned with cross-country evidence, a simulation exercise of various policy scenarios by Jorgensen and Sogaard (2021) highlights the role of significant wage replacement. Huebener, Kuehnle and Spiess (2019) show that the German reforms, which rebalanced the previous policy by significantly increasing the generosity of payments in the first year at the expense of shortening later entitlements, effectively changed paternal leave-taking. However, in an analysis of the Austrian parental leave reforms, Ziegler and Bamieh (2023) show that both an increase in flexibility and an increase in financial incentives led to increased uptake by fathers, with the former more important than the latter.

[1] See, for reviews, Olivetti and Petrongolo (2017), Rossin-Slater (2018) and Canaan et al. (2022).

2 | BACKGROUND

2.1 | Parental leave policies in the UK

Subject to eligibility, working parents in the UK are currently entitled to paid maternity, paternity, adoption and SPL within the first year of their child's life. In addition to this, they can use up to 18 weeks of unpaid leave in respect of any individual child up to the child's 18th birthday. These entitlements have evolved over time and are laid out in detail in Powell and Codd (2022). In what follows, we focus on the types of leave available to parents within the first year of their child's life and the period between 2010 and 2019, as this corresponds to the timeframe of our analysis.[2]

2.1.1 | Maternity and paternity leave and pay in the UK

As of 1999, working women in the UK are entitled to 52 weeks of maternity leave: 26 weeks of ordinary leave and 26 weeks of additional leave.[3] This is a 'day one' right, which does not depend on the length of employment. They may receive Statutory Maternity Pay (SMP) during the first 39 weeks of their leave – paid at 90 per cent of their average weekly earnings for the first six weeks (enhanced rate), followed by a fixed weekly amount for the remaining 33 weeks (flat rate). The flat rate, which was £139.58 per week in 2015 and £184.03 in 2024, oscillates around 52 per cent of weekly earnings of a full-time worker earning the national minimum wage. The statutory payments are available only to workers who have been continuously employed with the same employer for 41 weeks prior to the child's due date and meet a given earnings threshold (£112 a week pre-tax in 2015 and £123 a week pre-tax in 2024).[4] Those who do not qualify – such as the self-employed or those who have not been employed by the same employer – may be eligible for Maternity Allowance, which is paid for 39 weeks at the flat rate, but the level of payments varies depending on individual circumstances.[5]

Statutory paid paternity leave was first introduced in the UK in 2003 and is available to both men and women, who are parents of a child and are a partner of the mother or adopter.[6] Eligible parents can take one or two weeks of leave within the first 56 days after their child's arrival. This is paid at the flat rate (as in SMP) or 90 per cent of their average weekly earnings, whichever is lower. To qualify for the leave, an individual must have been employed for 41 weeks before the week of the child's arrival. To qualify for pay, an individual must also meet a threshold of weekly pre-tax earnings (as per SMP).

Additional Paternity Leave (APL) was introduced in the UK in 2011. Between April 2011 and April 2015, working partners of mothers or primary adopters could request up to 26 weeks of APL for a child between 20 and 52 weeks after birth and born or adopted on or after 3 April 2011.[7] To qualify for this leave, the parent must have been continuously employed with the same employer for 41 weeks before the child's arrival and the mother or primary adopter must have returned to work. These entitlements came with Additional Statutory Paternity Pay, if the mother has not taken her full entitlement of statutory pay. Pay was set at the weekly flat rate or 90 per cent of average weekly

[2] For a summary of the evolution and terms of these policies, see Figure A.1.

[3] This entitlement was established by the Employment Rights Act 1996, with the main implementing provisions set out in the Maternity and Parental Leave etc. Regulations 1999 (SI 1999/3312).

[4] Adoption leave entitlements in the UK are in line with maternity leave and pay. These provisions are set out in the Employment Rights Act 1996 and detailed in the Paternity and Adoption Leave Regulations 2002 (SI 2002/2788). Adoptive parents may nominate one of the parents as the 'primary adopter', who may be entitled to adoption leave, while the other parent may qualify for paternity leave. The eligibility criteria and entitlements for adoption leave and pay are equivalent to those provided to birth mothers under statutory maternity leave provisions.

[5] This is either the flat rate offered within SMP or 90 per cent of one's average weekly earnings, whichever is lower.

[6] Statutory paid paternity leave was established under the Employment Rights Act 1996 and implemented through the Paternity and Adoption Leave Regulations 2002 (SI 2002/2788).

[7] Established under the Additional Paternity Leave Regulations 2010 (SI 2010/1055).

earnings, whichever was lower. The uptake of APL was low with under 1 per cent of eligible fathers taking it in 2011/2012 (Trades Union Congress, 2013).

2.1.2 | UK Shared Parental Leave policy

SPL came into effect on 5 April 2015.[8] It complemented the maternity, paternity and adoption leave, and replaced APL. The policy aimed to improve maternal labour market attachment, provide flexibility for couples to share caregiving duties, and increase paternal involvement in childcare, contributing to reduced employment and gender pay gaps.

SPL was considered an improvement on APL due to its flexibility. In particular, eligible couples can share up to 50 weeks of leave, starting as soon as two weeks after birth, and are entitled to up to 37 weeks of Statutory Shared Parental Pay (SShPP), subject to conditions. To claim this entitlement, the mother or primary adopter must end their maternity leave and begin sharing the leave entitlement with the partner. Therefore, this leave is often seen as a transfer of maternity rights.

To qualify for both leave and pay, both parents must be continuously employed with their respective employer for at least 41 weeks before the due date and meet the minimum weekly income criterion (as per SMP). This is a stricter requirement than the preceding APL because it also depends on the length of maternal employment and pay level and not simply the mother's return to work. The SShPP is in line with SMP but the number of weeks paid depends on the level of entitlement already used by the mother through maternity pay.[9]

While no causal analysis of its effects has been undertaken, qualitative research on SPL suggests low adoption due to inadequate financial support and complex regulations (Birkett and Forbes, 2019).[10] The statutory pay provision across maternity, paternity, adoption and SPL policies – particularly the flat-rate component – is often viewed as unattractive, especially for fathers. As a result, some employers offer enhanced policies, often topping up payments to 100 per cent initially before tapering off. Results of the Management and Wellbeing Practices Survey 2019 indicate that 17 per cent of UK employers offer occupational maternity policies (Department for Business and Trade, 2023a). However, no comprehensive quantitative data on these enhanced policies exist for the UK.

2.2 | International evidence

Many other OECD countries have introduced parental leave programmes with the objective of supporting families. Some countries, such as Sweden, have gone even further in devising such policies also to support gender equality and reduce the gender pay gap, particularly for women in high-skilled occupations. Sweden's parental leave policy, funded by the government, includes paid leave for childcare and sick children, alongside other family support measures such as subsidised daycare and child allowances. Parental leave benefits are divided into three main types: (1) ten days of income-proportional leave for fathers within 60 days of childbirth; (2) 90 days of leave at a flat rate, and (3) 360 days of income-based leave with a replacement rate of 75–80 per cent, subject to a ceiling. The 1995 daddy month reform mandated that one month of the 360-day leave be reserved for each parent, effectively encouraging fathers to take leave. This reform coincided with a reduction in wage replacement from 90 per cent to 80 per cent, except for the first month of leave for both parents

[8] SPL was introduced under the Children and Families Act 2014.

[9] For instance, if parents share 50 weeks of leave starting two weeks after birth, they are entitled to four weeks of enhanced payments and 33 weeks at flat rate. If they start sharing after six weeks and the mother has received six weeks of enhanced pay through SMP, then they are entitled only to 33 weeks at flat rate. The longer the maternity leave and pay received by the mother, the lower the SPL entitlement for the parents.

[10] The UK government has reviewed this policy as part of its Good Work Plan (Department for Business and Trade, 2023b), drawing on data from the Management and Wellbeing Practices Survey 2019, the Parental Rights Survey 2019 among parents of children born in 2017, and His Majesty's Revenue & Customs claimant statistics. Despite findings of low uptake among surveyed parents and of low awareness of SPL among both parents and employers, no substantial changes to the policy were proposed as a result.

(Ekberg, Eriksson and Friebel, 2013). Despite flexibility in using parental leave until the child turns eight, most leave is taken within the child's first two years. Ekberg, Eriksson and Friebel (2013) identify that the introduction of the first daddy month paid at 90 per cent of the previous wage in 1995 led to a 50 per cent (15 days) increase in the length of leave taken by fathers on average.

Norway introduced a paternity-leave quota in 1993, reserving four of the 42 weeks of paid parental leave exclusively for fathers to promote father–child bonding and gender equality in caregiving and the labour market. If fathers did not take this leave, the family forfeited it. While maternity leave required only the mother to work at least 50 per cent before birth, paternity leave was contingent on both parents meeting this threshold, with fathers' compensation reduced if mothers had not worked full-time. Following the reform, paternal leave uptake rose significantly, from under 3 per cent before 1993 to over 70 per cent by 2000 (Rege and Solli, 2013). Most fathers who took leave did so alongside the mother during the child's first year, with around 70 per cent using the full four weeks. Uptake was higher among older, more-educated fathers and mothers, and decreased for subsequent children. Rege and Solli (2013) show that the uptake grew from 3 per cent to 60 per cent in the first two years of this policy.

In 2000, Iceland reformed its parental leave policy by introducing a paternity quota, effective from 1 January 2001. Under the new law, one of the seven months of paid parental leave was reserved exclusively for fathers, and if unused, it was forfeited. The reform emphasised gender equality, aiming to ensure children spent time with both parents and to support work–family balance. Unlike previous policies, the right to parental leave was independent of marital or cohabitation status. The reform expanded total leave from six to nine months, granting fathers three non-transferable months – the largest such share globally at the time. Parents in the workforce received 80 per cent of their salaries while on leave. Before this change, fathers lacked independent leave rights, and few families shared parental leave in practice. Olafsson and Steingrimsdottir (2020) show that the uptake rate of the newly created daddy month was 82.4 per cent in the first year.

In Canada, parents with at least 52 weeks of employment are entitled to a year of job-protected parental leave, with benefits available through the Employment Insurance (EI) programme, except in Quebec. In 2006, Quebec introduced the Quebec Parental Insurance Plan (QPIP) to improve access, flexibility and financial feasibility for parents taking leave. Unlike EI, which requires 600 hours of insurable work, QPIP has a lower earnings-based threshold, making it more accessible to parents in non-standard jobs. QPIP also offers higher income replacement rates (up to 70 per cent instead of EI's 55 per cent) and a higher earnings ceiling for benefits. It provides parents with a choice between a standard or higher-benefit shorter-duration plan, offering greater flexibility to balance work and family needs. Patnaik (2019) demonstrates that the introduction of five weeks of leave earmarked to fathers and paid at 70 per cent of previous earnings (in the first seven weeks and at 55 per cent for the remaining 48 weeks) increased fathers' uptake by 250 per cent.

By 1993, Finnish fathers were entitled to three weeks of paid paternity leave, which could be taken while mothers were on maternity or parental leave. Benefits covered about 70 per cent of earnings but decreased for higher earners. To encourage paternal leave uptake, Finland introduced two additional bonus weeks in 2003 and another two in 2010 for fathers who took at least two extra weeks after the mother returned to work. Morosow and Cooke (2022) show that high-wage fathers who took only paternity leave initially experienced wage penalties, likely due to employer perceptions of reduced work commitment, but their earnings recovered over time. In contrast, lower-wage fathers who took solo leave – time off when the mother had returned to work – faced more persistent wage declines, possibly because this experience leads them to reprioritise family over work. These patterns suggest that employer perceptions and the type of caregiving undertaken during leave contribute to wage penalties, with solo leave having a stronger long-term impact on lower-wage fathers.

International evidence on whether the uptake translates into more equal parenting and equality in the workplace is scarce and mixed. Most studies demonstrate increased paternal involvement in childcare and important spillover effects to other aspects of family life, such as couple stability and fertility (Canaan et al., 2022), health and happiness, that provide long-term benefits to child development and

well-being (Tugrul, Stuckler and Aassve, 2020). Studies of the reform in Quebec, which introduced five weeks of earmarked leave for fathers and improved compensation, suggest that fathers increased the time spent on solo parenting (Wray, 2020) and that women's labour supply increased (Patnaik, 2019). Greater paternal involvement in childcare has been shown to improve the life satisfaction of both mothers and fathers (Korsgren and van Lent, 2022).

3 | UKHLS DATA

We use data from the UKHLS, a nationally representative longitudinal study collected by the Institute for Social and Economic Research at the University of Essex (University of Essex, Institute for Social and Economic Research [ISER], 2023), to evaluate the effects of the policy roll-out. The UKHLS follows around 40,000 households in the UK annually, starting in 2009. The data contain rich information on household structure, demographics and the labour market situation of respondents, allowing linkage to their spouses and children. Importantly, it is possible to derive the year and month of birth for newborns.

We focus on the years 2010–2019, given restrictions on the availability of leave information for prior years and to avoid the confounding effects of the COVID-19 pandemic after 2019. We select households with married or cohabiting, working parents (at the child's birth year and the year prior) to approximate policy eligibility. To preserve sample size, we consider all parents and control for the birth order of the child, recognising the potentially different effect for families with older children.[11] April 2015 is the cut-off point used to split the sample into pre- and post-SPL. Our variables of interest are the (self-reported) uptake of leave by new fathers following the birth of a child and the number of (calendar) days of leave taken, based on the start and end dates provided by respondents, conditional on taking leave.[12] We consider the behaviour of fathers who were the focus of the policy.[13] If the reform encouraged fathers who otherwise did not take leave to take SPL, we would expect an increase in uptake. If it encouraged those taking paternity leave to combine it with SPL, we would see an increase in leave length, conditional on uptake.

We leverage the comprehensive nature of the data by controlling for various parental characteristics, such as age (in years at last interview), education, ethnicity and country of birth. Education is captured through a set of dummy variables indicating whether the parent has a university degree, completed high school, or has lower or no formal education. We also include ethnicity, represented by a dummy variable indicating whether the parent is White, along with another variable indicating whether they are UK-born. We also utilise information on individual and household income, as well as occupation and employer characteristics of fathers and their partners in heterogeneity analysis. Table A.1 in the online Appendix presents these demographic characteristics of parents with children born before and after the SPL roll-out, captured a year before the child's birth.[14] The distribution of outcome variables over time, shown in Figure 1, reveals some variation in fathers' uptake of leave and its duration, but no clear change in level or trend around the time of policy implementation.

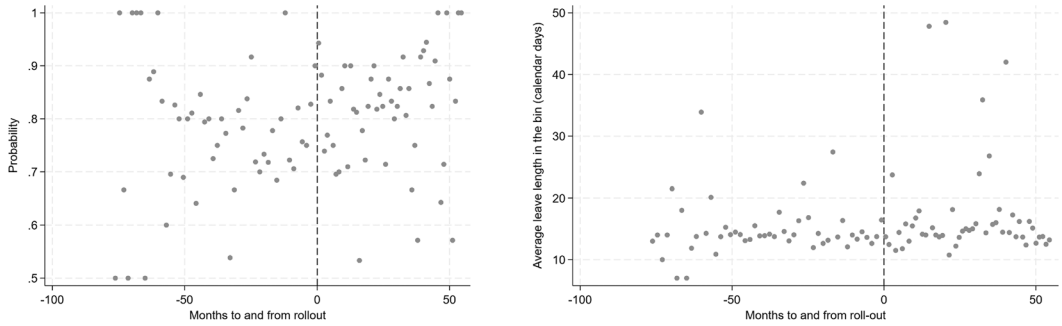
Before we turn to the empirical analysis, it is worth noting that the strength of this dataset lies in the level of detail available regarding the individual taking leave and their household, the ability to identify the exact leave length and the fact that all household members can be matched and observed

[11] Our results are robust to using a subsample of first-time parents (available upon request).

[12] Similarly to González and Zoabi (2021), we do not observe the leave type (maternity, paternity or shared), so the leave length could include various entitlements.

[13] Another reason for focusing on fathers is the high number of missing return dates for mothers, which prevents precise calculation of leave length. This is a consequence of many mothers being on leave during the interview. Nevertheless, in Section 5, we examine the sensitivity of our findings when focusing on mothers' outcomes.

[14] Table A.1 also includes other characteristics (including those of the partner) for completeness but these are not explicitly included in the benchmark empirical specification (see below).



(a) Uptake by fathers

(b) Leave length by fathers

FIGURE 1 Leave uptake and length around the 2015 reform. *Note*: Dots represent averages in a given bin. The dashed vertical line marks the April 2015 cut-off.

over time. The relatively small sample size for those eligible to take leave poses a limitation for the exercise we undertake here because it can affect the precision of estimates. With this in mind, we perform a power prediction exercise (see Section 4). Studies from other countries draw on datasets containing information about the universe of working parents to undertake analyses of this kind. In the UK, the closest equivalent is the PAYE-RT dataset, which follows taxpayers longitudinally. However, it does not allow for linkage between partners, contains only limited information on individuals (such as income, tax paid, tenure and sector of employment) and provides only partial information on the leave taken, which must be proxied by the number of statutory payments received. Furthermore, there is also a concern about undercounting of paternity leave in the database as not all employers reclaim statutory payments from the government. As such, despite its relatively small sample size and reliance on survey data, the UKHLS remains the most suitable dataset for the analysis that follows.

4 | DESIGN OF REGRESSION DISCONTINUITY IN TIME

Following Canaan (2022) and González and Zoabi (2021), we apply RDiT around policy implementation using the following equation,

$$Y_{it} = \alpha + \beta postSPL_t + \gamma R_i + \delta postSPL_t \times R_i + \lambda X_{it} + \epsilon_{it}, \quad (1)$$

where Y_{it} is either a dummy variable equal to one if father i took leave or the number of calendar days of leave taken by father i in year t, and $postSPL_t$ is a dummy variable equal to one if the child was born to eligible parents on or after the policy roll-out. R_i is the running variable (month of birth of the child normalised to zero in April 2015).[15] The interaction term between R_i and $postSPL_t$ allows for different trends in month–year of birth. The vector X_{it} includes characteristics mentioned above that are likely to determine fathers' leave, such as father's ethnicity, whether the respondent is UK-born, age, education and child's birth order.[16] β is the coefficient of interest, capturing the intent-to-treat effects of SPL eligibility. The key identifying assumption is that working (non-single) parents with children born before and after the cut-off should be otherwise comparable and that other indicators are not affected by this reform.[17] We use a donut approach around April and apply a local polynomial and

[15] Figure A.2 in the online Appendix presents the distribution of the running variable.

[16] We estimate models with controls to ensure comparability between the control and treatment groups, particularly given the wide bandwidth applied. Analysis without covariates produces similar results (available upon request).

[17] Table A.2 in the online Appendix demonstrates the continuity of control variables at the threshold.

triangular kernel, which assigns greater weights to observations closer to the cut-off (Cattaneo, Idrobo and Titiunik, 2019).[18] Throughout, we use the UKHLS individual cross-sectional weights.

To determine the bandwidth for our baseline estimations, we undertake a power prediction exercise and gauge the sample size required to identify the policy effects.[19] We take a conservative approach, assuming that 80 per cent predictive power and 5 per cent statistical significance are needed. We use benchmarks from the pre-policy impact assessment of Department for Business, Innovation and Skills (2013), considering scenarios of 2 per cent, 4 per cent and 8 per cent for uptake, and one, two and four weeks for length. A sample of around 1,900 fathers would be required to detect an 8 per cent increase in uptake, and even larger one for smaller effects. With the sample at hand, our analysis is underpowered. However, 200 and 700 observations would be sufficient to identify a one-week and a three-day increase in leave length, respectively (see Figure A.2). Therefore, we apply a 48-month bandwidth in our baseline, the largest possible that does not overlap with the 2011 APL reform roll-out. We explore the sensitivity of our results to these methodological choices in Section 5.[20]

5 | THE IMPACT OF SHARED PARENTAL LEAVE

In the baseline approach, we consider the overall effect on uptake and leave length.[21] Table 1 presents these estimates. The coefficient on leave uptake or leave length for the sample as a whole is not statistically different from zero (first row). While the estimates may be imprecisely estimated, the results are robust to changes in bandwidth or kernels (see Table A.3) and are supported by a series of placebo exercises (see Table A.4).[22,23] Online Appendix B further shows that focusing on mothers' outcomes or the proportion of the leave taken by mothers relative to the total leave taken by both parents does not alter our conclusions. We also compare these results with those obtained from an ordinary least-squares (OLS) regression of the dependent variables on a time trend, a post-SPL dummy and individual controls (see Table A.5) and find no evidence of an impact of the SPL on leave uptake or leave duration, consistent with our benchmark estimates.

While we acknowledge that the non-significant result on uptake might be driven by the sample size – reflected in the confidence interval, which only allows us to rule out effects greater than 11.9 percentage points at the 95 per cent confidence level – the power prediction exercise indicates that the sample is sufficient to detect a three-day increase in leave length. Nonetheless, given the width of the confidence intervals, we conclude that we can rule out effects larger than a 2.3-day increase in average leave length resulting from the policy roll-out.

Next, following González and Zoabi (2021), we explore whether SPL had heterogeneous impacts across specific groups of couples. The pre-policy assessment anticipated that fathers whose partners earn the same, or more, might be more responsive to the new rights (Department for Business, Innovation and Skills, 2013). Additionally, the evaluation by Department for Business and Trade (2023c) indicates that those taking SPL are often highly qualified professionals, with better financial situations. Furthermore, larger employers had greater awareness of the policy and were more likely to offer enhanced pay packages for SPL (Department for Business and Trade, 2023c).

[18] The policy came into force on 5 April, but we do not observe the exact day of birth.

[19] Calculations use the Stata packages `rdpow` and `rdsampsi` by Cattaneo, Idrobo and Titiunik (2019).

[20] Given the wide bandwidth applied in the exercise and the fact that observations far away from the event date may be affected by different factors related to fertility and work choices, one can view this approach as a before–after comparison allowing for linear trends and using kernel weighting to additionally minimise contamination from non-linearities.

[21] Bias-corrected and robust estimates are presented in Table A.5 in the online Appendix.

[22] Although the estimates in placebo exercises are also statistically insignificant, some coefficients are larger in magnitude than those in the baseline analysis. Therefore, we test the difference between the policy-related coefficient (2015) and each of the placebo estimates. None of the differences is statistically significant (see Table A.4).

[23] Analysis using leave length beyond 10 or 14 calendar days (standard paternity leave) produces comparable results (available upon request).

TABLE 1 Effect of SPL roll-out on uptake and leave length

	Panel A. Uptake				Panel B. Leave length			
	RDiT estimate	**SE**	**CI**	***N***	**RDiT estimate**	**SE**	**CI**	***N***
All fathers	0.004	(0.059)	[−0.112, 0.119]	1,397	−0.788	(1.597)	[−3.919, 2.342]	1,002
Subsamples								
Father university graduate	0.033	(0.082)	[−0.128, 0.194]	727	2.073	(2.204)	[−2.247, 6.394]	537
Both parents university graduates	0.051	(0.099)	[−0.144, 0.246]	489	4.640*	(2.358)	[0.019, 9.262]	376
Father managerial occupation	−0.126	(0.130)	[−0.380, 0.128]	286	3.092	(2.228)	[−1.274, 7.458]	201
Father professional occupation	0.154	(0.089)	[−0.020, 0.328]	539	2.458	(1.963)	[−1.388, 6.305]	421
Household income above mean	0.022	(0.062)	[−0.098, 0.143]	989	0.509	(1.612)	[−2.650, 3.668]	739
Couple labour income difference below mean	0.041	(0.103)	[−0.162, 0.243]	262	−1.438	(4.092)	[−9.459, 6.583]	201
Mother earns more than father	−0.018	(0.108)	[−0.230, 0.193]	292	2.193	(3.086)	[−3.855, 8.241]	215
Father's employer > 200 employees	0.004	(0.059)	[−0.112, 0.119]	1,397	−0.788	(1.597)	[−3.919, 2.342]	1,102
Father's employer > 500 employees	−0.061	(0.097)	[−0.252, 0.129]	316	−0.682	(2.592)	[−5.763, 4.400]	250

Note: Conventional estimates using one-month donut, 48-month bandwidth, local polynomial approach with triangular kernel. Specifications include controls. The first row includes all fathers in the sample (baseline). The following rows include the subsamples indicated. RDiT estimates in the first column of each panel, followed by standard errors (SE) in parentheses and confidence intervals (CI) in square brackets. ***, ** and * denote significance at the 1, 5, and 10 percent levels, respectively.

To explore whether there has been an effect for these groups, we repeat the analysis on subsamples where the respondent graduated from university, both parents are university graduates, the father is in a managerial or professional occupation, the household's income is above the mean, the within-couple difference in labour income is below the mean, and the mother earns more than the father. We also examine fathers working for employers with more than 200 or more than 500 employees. The results, shown in the 'Subsamples' rows of Table 1, do not indicate statistically significant effects on uptake for any of the subgroups considered (Panel A), though estimates remain imprecise in some cases. There is no clear evidence of an effect on fathers' leave length either, except among couples where both parents are university graduates. In this group, we observe some indication of a positive effect, although it is only marginally significant at the 10 per cent level (Panel B).

Similarly here, using confidence intervals as a guide, we can rule out a range of large effects on uptake, ranging from 12 percentage points for fathers working for large employers, to 19 percentage points for university graduates, and up to 32 percentage points for fathers in professional occupations. A similar exercise applied to the leave length analysis permits us to rule out effects of different sizes, depending on the grouping. For instance, we can be confident of no effect larger than 2.3 days on average for fathers working for large employers (over 200 employees), 3.6 days for households with above mean income but also 8.2 days for households where the mother earns more than the father.

6 | DISCUSSION

In this paper, we examine the impact of the UK's SPL reform, introduced in April 2015, alongside the existing Maternity and Paternity Leave policies. The reform was designed to enable working parents to share statutory paid leave, which had previously been allocated exclusively to mothers. Using a RDiT approach with UKHLS data, we do not find compelling evidence that the SPL policy led to an increase in fathers' leave uptake or length of leave. Based on our preferred specification and bearing in mind relatively small sample sizes, and imprecise estimates, we can rule out overall effects of this reform that are larger than 11.9 percentage points on uptake and 2.3 days in average leave length. This finding raises important questions about the effectiveness of SPL in the UK and suggests that reform is necessary if the policy is to achieve its goal of encouraging fathers to take a more active caregiving role during their child's first year and to support mothers in maintaining stronger ties to the labour market.

Our findings offer important insights into how the design of paternity leave policies can influence their uptake. Although it is difficult to directly compare our results with those of other countries due to significant differences in policy design, juxtaposing our null results with the successes observed in Iceland, Quebec and Denmark reveals key elements that may have hindered uptake in the UK. For instance, the 2001 Icelandic reform analysed by Olafsson and Steingrimsdottir (2020) introduced a 'use-it-or-lose-it' component, allocating one of the seven months of parental leave exclusively to fathers. Combined with the removal of stringent eligibility criteria – such as marital or employment status requirements – this resulted in an increase of over 80 per cent in uptake of paternal leave. Crucially, the reform was financially generous, providing 80 per cent of salary compensation to parents active in the labour market. Similarly, the QPIP adopted comparable features, lowering eligibility barriers, enhancing financial benefits and introducing a five-week 'daddy quota'. Patnaik (2019) demonstrates that this combination of labelling paternal leave and improving financial incentives significantly boosts fathers' participation. Although Andersen (2018) finds smaller effects of parental leave reforms in Denmark, these findings also suggest that the financial terms and the relationship between fathers' and mothers' leave durations were important determinants of fathers' uptake.

Our results, in contrast, possibly reflect the absence of these facilitating factors in the UK policy. The lack of generous financial support, restrictive and complex eligibility criteria, and the fact that fathers' leave is shared with mothers rather than being additional are all likely to have suppressed uptake. Therefore, a potential path for reforming the UK paternity leave policy could involve improving

financial terms, simplifying eligibility requirements and ensuring that fathers' leave is distinct and additional to mothers' leave. Such changes, as seen in the Icelandic and Quebec examples, could offer a potential path to increasing uptake of paternal leave and advancing gender equality in parental responsibilities.

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DATA AVAILABILITY STATEMENT

The safeguarded version of the UK Household Longitudinal Survey data can be accessed via the UK Data Service.

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SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

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