

# *Pathways to Higher Order Fertility among Couples: The Role of Occupational Welfare*

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## ***Introduction***

Fertility has declined across developed nations over the past four decades (Lesthaeghe, 2010; van de Kaa, 1987). A major driver is the declining likelihood of having a second birth (Van Bavel and Rozanska Putek 2010, Zeman et al., 2018), especially among lower socioeconomic groups (Jalovaara et al., 2019; Lappegård, 2020). The gap between women's fertility intentions in their twenties and their realization after 40 suggests this decline is not rooted in changing fertility preferences (Beaujouan & Berghammer, 2019). Rather, research suggests that the career 'penalties' associated with having children for women and the direct costs of childrearing are key to understanding the postponement of motherhood and associated reductions in higher-order births (e.g., Liebroer 2005; Sigle 2016).

A large body of literature shows how state interventions – notably, parental leaves and formal childcare services – foster higher fertility by reducing conflicts between employment and family life (e.g., Bergsvik, Fauske, and Hart 2021; Billingsley and Ferrarini 2014; Billingsley, Neyer, and Wesolowski 2022), especially among higher-educated women (Baizán et al., 2016). Meanwhile, research on the role of families indicates that the likelihood of transitioning to a second-order birth increases when fathers are more actively involved in caregiving (Fanelli & Profeta, 2021; Suero, 2023) and grandparents (Rutigliano, 2024) or other relatives provide care (Schaffnit & Sear, 2017) – again, with differences by socioeconomic status. Yet, research has given less attention to how the third arm in the *state-family-market* triad shapes transitions to second births across socioeconomic strata. This article contributes to addressing this gap.

We assess the role of the market – that is, company-provided benefits, namely, internal flexibility, employer-provided childcare benefits, and additional maternity pay - in shaping couples' transitions to a second birth. We analyse data for a liberal, market-oriented welfare state, represented by the UK, where the state expects families to largely make their own care arrangements through subsidised market services (Korpi et al., 2013). The predominance of the market means the UK provides an illustrative case for assessing the role of occupational welfare in shaping fertility decision-making and outcomes.

Reflecting stratification in the labour market and second births (Berrington et al., 2015; Lappegård, 2020), we examine how this association varies for low-income versus higher-income heterosexual couples. A couple-level perspective – currently missing in mainstream research on fertility – is essential for fully unpacking how occupational welfare influences second-birth transitions. It allows for a richer, more contextualised understanding of fertility decision-making and behaviours, given vast discrepancies across workplaces in the availability and accessibility of work-

family supports both within and across couples. What is more, our couple-level perspective attends to potential discrepancies between partners in their fertility intentions, and how this may influence (non-)transitions to a second birth.

### *Methods*

We draw data from the first four sweeps of the Millennium Cohort Study (MCS), which is a UK longitudinal cohort study following young people born between September 2000 and January 2002. Our population of reference are different-sex couples with one child born between September 2000 and January 2002 in the United Kingdom, where both parents are in employment 9 months after childbirth – i.e., none of the parents is in education, unable to work or retired. We exclude those who are self-employed, as they do not have access, by definition, to employer-provided benefits or internal flexibility.

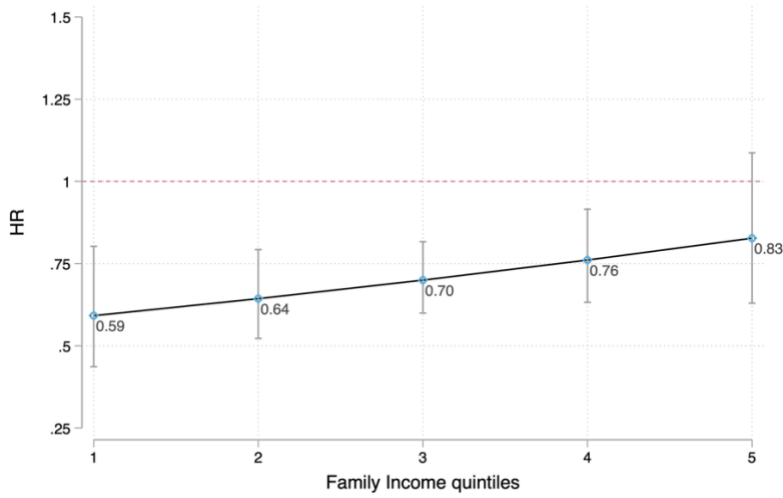
Our outcome of interest is second-parity transitions. Respondents enter their time at risk at their first interview roughly 9 months after they had their first child. They are observed until a second birth occurs, they leave the study, or the fourth sweep interview occurs - whichever comes first. This approach accounts for right-censoring, enabling variation in follow-up time and appropriately handling cases where the event does not occur within the study window.

Our main explanatory variables are represented by four market-level “welfare factors”: *internal flexibility*, *company-provided childcare benefits*, and *additional pay on top of statutory maternity leave*, which are at the company level, and *childcare arrangements*. *Internal flexibility* is comprised by company practices that allow for employees’ work-life balance through job flexibility – e.g., flexi-time, job-sharing, and working from home. *Company-provided childcare benefits* include financial help with or access to company subsidised care services or workplace facilities and additional pay on top of Statutory Maternity Leave. We distinguish between parents who have paid for childcare or never did so in the first three years after the first child was born. To account for potential confounding, we adjust our models by maternal age at birth (squared), age difference between partners, marital status, and family income, and, for each parent, holding a tertiary degree and occupational status (National Statistics Socio-Economic Classifications, NS-SEC).

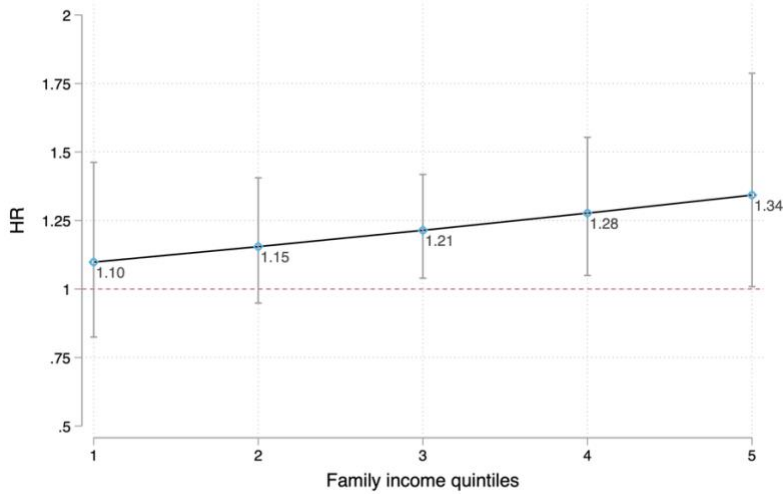
After sample selection and the exclusion of missing values, our final sample comprises 1,329 cohabiting different-sex couples (subjects) and 53,745 person-months or, equivalently, 4,479 person-years, observed from 2001 to 2008.

To estimate the hazards of second parity transition, we run Cox proportional-hazards models for each of our explanatory variables, allowing us to account for right censoring of mothers’ second birth transitions (Box-Steffensmeier & Jones, 2004; Cox, 1972). Moreover, Cox proportional-hazard models do not assume a specific form of baseline hazards as a function of time,  $h_0(t)$ , which is a necessary feature in our framework, since baseline hazards between birth transitions have a non-linear functional form (Friedman, 1982). We test the proportionality of hazards across our main explanatory variables using Schoenfeld residuals, finding no strong evidence against it (Kalbfleisch & Prentice, 2002; Schoenfeld, 1982).

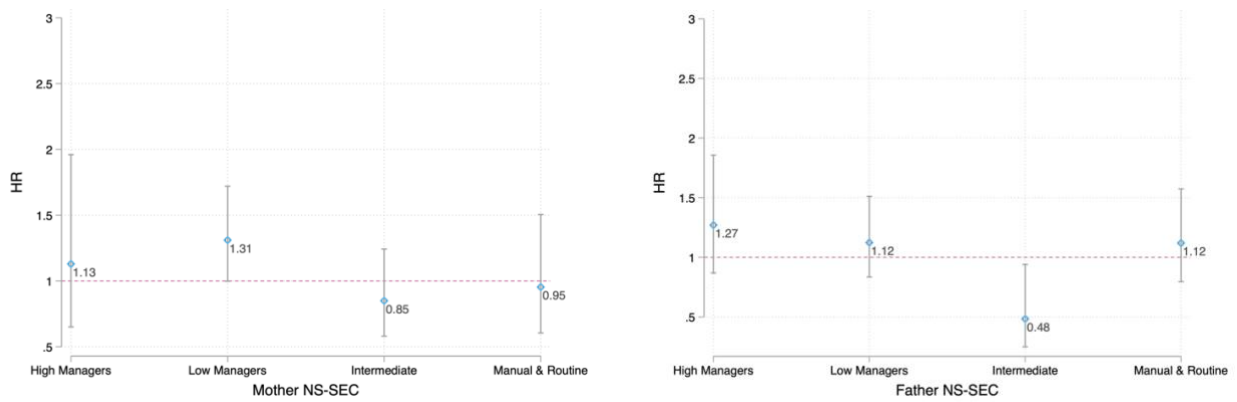
**Preliminary results**



**Figure 1.** Hazard ratios of *having ever paid for childcare* by family income. Estimates of linear combinations of the coefficients from an adjusted Cox proportional hazard model and 95% CIs.



**Figure 2.** Hazard ratios of *pay on top of statutory maternity leave pay* by family income. Estimates of linear combinations of the coefficients from an adjusted Cox proportional hazard model and 95% CIs.



**Figure 3.** Hazard ratios of *fathers' use of internal flexibility* by mothers' (left) and fathers' right NS-SEC. Estimates of linear combinations of the coefficients from two adjusted Cox proportional hazard models and 95% CIs.

Our preliminary results show that paying for childcare reduces couples' second-birth hazards; however, this relationship weakens as family income increases (Figure 1). Conversely, additional maternity pay increases second-birth hazards – but only among higher income groups (Figure 2). Meanwhile, employer-provided childcare benefits show no association (not shown). Results highlight the importance of fathers' (but not mothers') use of internal flexibility, although its association with second-parity transitions depends on the occupational classification of each parent. Mothers in lower managerial occupations experience higher second birth hazards if fathers take up internal flexibility offered by the employer (Figure 3, left). Yet, this association becomes negative among couples where the father is employed in intermediate occupations (Figure 3, right).

Overall, our results support previous literature that the costs of parenthood and childrearing are a key driver of low fertility (Van Wijk & Billari, 2024). Our results on internal flexibility also underscore the importance of fathers' access to flexible working arrangements in facilitating higher-order births (Fanelli & Profeta, 2021). In analysing a context where dual-earner couples receive little support from state-level policies, our results indicate that occupational welfare can mitigate but also reproduce social inequalities in fertility. Expanding access to flexible work and paid leave benefits across the occupational spectrum could be crucial for enabling couples to realise their fertility intentions.

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