The Impact of EU Structural Funds on the Transition to Parenthood: Evidence from the UK*

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Abstract

This paper investigates whether large-scale regional policies can influence individual fertility behaviour. We analyse the impact of EU Objective 1 funding — allocated through the European Regional Development Fund (ERDF) and the European Social Fund (ESF) — on the probability of conception among women in the United Kingdom. Using longitudinal data from the British Household Panel Survey (BHPS) and the UK Household Longitudinal Study (UKHLS) between 1991–2016, we estimate a standard difference-in-differences design that exploits variation in regional eligibility before and after the 2000 funding cycle. Our results show that exposure to Objective 1 funding increased conception probabilities by around 2–2.3 percentage points. The effects are robust across different specifications. Heterogeneity analyses show that fertility responses are stronger among women with a high school education and those employed in intermediate or technical occupations. These results demonstrate that regional development policies can influence family formation decisions, particularly among middle socioeconomic groups who may be most sensitive to improvements in local economic opportunities. By linking EU regional funding to fertility outcomes, this study provides novel evidence on the evaluation of cohesion policy beyond standard economic outcomes and highlights its potential demographic implications.

Keywords: Fertility, EU Structural Funds, Regional Policy
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1 Introduction

EU Structural Funds have played a crucial role in reducing regional disparities and fostering economic and social development across Europe. Beyond their well-documented effects on infrastructure, employment, and regional convergence, these place-based investments may also influence individual life-course decisions, including family formation decisions. Fertility behaviour is known to be highly sensitive to broader socioeconomic conditions: precarious employment, job insecurity, and economic uncertainty are associated with delays in childbearing and reduced fertility intentions (Hofmann and Hohmeyer, 2013; Ayllón, 2019; Comolli, 2017), while stable employment and supportive family policies are linked to earlier transitions to parenthood and higher completed fertility (Vignoli et al., 2020; Lappegaard et al., 2022). EU structural Funds may create conditions that reduce the opportunity costs of childbearing and encourage family formation by strengthening employment prospects, supporting skills development, and expanding access to childcare and social services. However, there is still no evidence on whether the reception of EU structural funds can have a causal impact on fertility behaviour.

This paper examines the effect of EU Objective 1 funding on fertility behaviour in the United Kingdom. The EU Objective 1 represents a principal component of EU Cohesion Policy that allocated financial resources to regions with GDP below 75% of the EU average. Several regions in the UK became eligible for EU Objective 1 funding across successive programming periods, receiving substantial investment through the European Regional Development Fund (ERDF) and the European Social Fund (ESF). These funds aimed to boost employment, skills, and social cohesion—factors that could plausibly influence family planning decisions by reducing economic uncertainty and improving job stability. By focusing on regional eligibility for structural support, we investigate whether exposure to Objective 1 funding influenced the probability of conception among women of reproductive age (15–45) in the UK between 1991 and 2016, as the UK's exit from the EU subsequently ended participation in these programs.

Our empirical strategy leverages a standard difference-in-differences (DiD) design, exploiting variation in Objective 1 eligibility across UK regions before and after the 2000 funding cycle. Most of the identifying variation in our setting comes from two regions that received the highest intensity of support: Cornwall and South Yorkshire. Cornwall became eligible for Objective 1 funding only after a 1998 reform of the UK's NUTS2 boundaries separated it from Devon, allowing its persistently low GDP per capita to fall below the 75 % EU threshold. This change was administrative and political in nature, rather than driven by a sudden shift in economic performance, making the timing of Cornwall's designation ex-

ogenously determined. South Yorkshire, instead, qualified for Objective 1 status after a prolonged period of industrial decline, during which GDP per capita hovered just below the eligibility threshold in the late 1990s. Its upgrade from Objective 2 to Objective 1 status in 2000 was therefore difficult to anticipate and, once the region converged toward the EU average, its eligibility was gradually phased out through a mechanical "phasing-in" process triggered by EU rules. Together, these institutional features provide plausibly exogenous variation in exposure to EU funding across regions and time, supporting the credibility of our difference-in-differences design (Di Cataldo, 2017). We combine this institutional setting with rich longitudinal microdata from the British Household Panel Survey (BHPS) and the UK Household Longitudinal Study (UKHLS), following women of reproductive age from 1991 to 2016. Our empirical model includes individual, local authority, and year fixed effects, controlling for unobserved heterogeneity, common time shocks, and persistent regional differences. In addition, we incorporate a comprehensive set of demographic, health, education, labour market, and household controls to account for compositional changes across population groups. This setup allows us to compare within-woman changes in the probabilities of conception between treated and untreated regions, estimating the causal impact of Objective 1 funding

Our results show that exposure to Objective 1 funding increased the probability of conception by around 2–2.3 percentage points. These effects are robust across increasingly rich specifications, suggesting that they are not driven by compositional changes or unobserved confounders. Heterogeneity analyses reveal that the fertility response was concentrated among women with a high school education and those in intermediate or technical occupations groups, suggesting that the middle-socioeconomic populations may be most sensitive to local improvements in economic security and labour market opportunities. By contrast, effects were statistically not significant for women with compulsory or tertiary education, as well as for those not employed or in routine-manual or professional–managerial occupations.

This research contributes to several strands of literature at the intersection of economic policy, regional development, and family demography. A substantial body of work has explored how economic conditions—particularly labour market stability, housing affordability, and institutional support—shape fertility decisions. For example, Adsera (2004), Martinez and Iza (2004), and Dettling and Kearney (2014) show that adverse labour market and housing contexts can contribute to the postponement of childbearing. Similarly, the availability of family-supportive policies such as childcare services and parental leave has been shown to facilitate higher fertility, particularly among younger and more educated women (Hazan and Zoabi, 2015; Kalwij, 2010; Doepke et al., 2015).

Parallel to this, an extensive literature has examined the effectiveness of EU Cohesion Policy, and in particular Objective 1 funding, with a primary focus on regional economic growth and convergence. The existing research on fertility and economic uncertainty highlights how negative shocks or changes in economic conditions can delay family formation (e.g., Gozgor et al. (2021), Hofmann and Hohmeyer (2013)), but it has typically focused on either national-level economic conditions or localised events like recessions. The effectiveness of EU Cohesion Policy has been extensively studied, especially in terms of its economic impacts. Findings have been mixed: some studies report positive effects of Objective 1 funding on economic growth and convergence (Becker et al., 2013; Pellegrini et al., 2013), while others find limited or even negative outcomes (Boldrin and Canova, 2001; Dall'erba et al., 2009). These discrepancies are partly due to methodological challenges in evaluating long-term policy interventions. In response, more recent contributions have adopted quasi-experimental strategies—such as regression discontinuity designs (RDD) —to estimate the causal effects of EU funds on regional outcomes, particularly economic performance (Becker et al., 2010; Giua, 2017). However, these studies tend to highlight static economic outcomes and overlook the broader social consequences of policy changes. One notable exception is Barone et al. (2016), who show that Italian regions experienced significant declines in economic performance following the loss of Objective 1 funding. Yet, to date, no study has examined whether such policy shifts have spillover effects on personal life decisions such as family formation and fertility.

Our study contributes to the literature in different ways. *First*, we broaden the scope of EU Cohesion Policy evaluation by considering fertility outcomes as a novel dimension of policy impact. While prior work has examined firm performance (Criscuolo et al., 2012) or labour market and economic performance (Di Cataldo, 2017), this is the first paper to provide evidence on how Objective 1 funding relates to family formation and demographic behaviour. *Second*, we exploit the changes in regional eligibility for Objective 1 support across UK regions and programming periods, which creates a quasi-experimental setting well-suited to causal analysis. This allows us to go beyond descriptive correlations and identify the effect of EU funds on the transition to parenthood. *Third*, we extend the analysis by exploring heterogeneity across subgroups of women—by age, education level, and region, thereby providing a more nuanced understanding of who benefits most from EU investments in regional development. By moving beyond traditional economic outcomes, our work adds a new dimension to the literature on both fertility and regional policy. It shows that EU Structural Funds, in addition to promoting economic cohesion, may also generate positive spillovers on personal life decisions such as family formation. These findings carry important implications for both EU and national policymakers, highlighting the demographic as well as economic value of cohesion-oriented investment.

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