

Having Children Triggers Misallocation of Skills and Talent? How Children Affect the Occupational Choices of Women over the Lifecourse

Monika Oczkowska¹ and Magdalena Smyk-Szymanska¹

¹SGH Warsaw School of Economics, Niepodległości 162, 02-554, Warsaw, Poland

November 1, 2025

Abstract

Childbirth is a pivotal event shaping parental labour market decisions, with substantial evidence showing that women's careers are far more affected than men's. Prior studies have documented reductions in female labour supply, wage penalties, and transitions into more flexible but lower-paid jobs following motherhood, contributing to long-lasting gender disparities in employment outcomes. Using data from the Gender and Generations Survey and the Survey of Health, Ageing and Retirement in Europe, we document how childbirth affects occupational mobility of mothers on a more granular level, which allows us to interpret the work-related transitions following childbirth as a misallocation of skill and talent. This project aims at extending the current understanding of gendered career dynamics beyond labour-supply effects, offering new insights into the mechanisms behind the persistent gender inequality in labour market performance.

Extended Abstract

Motivation for Research

Childbirth is a pivotal event that shapes a large set of parental decisions, also those related to the labour market participation. A large body of past literature proved that mother's choices are much more affected than the father's. After having the first child a sizeable proportion of women exit the labour market, reduce their working hours or experience a decrease in earnings ([Kleven et al., 2019]). There is evidence on childbirth-related transitions into more flexible, but lower-paid positions ([Bertrand et al., 2010, Angelov et al., 2016]). Already in anticipation of childbearing, women self-select into certain occupations, as simulated with a dynamic model of career and fertility choices ([Adda et al., 2017]). The so-called child-penalty is persistent in all these labour market outcomes for decades and can be found in most of the countries in the world, though the cross-country variation may be related to prevailing norms and existing family policies ([Kleven et al., 2025]). Altogether, all these excellent studies show that childbirth leads to serious, long-lasting consequences for women, from temporary labour-supply reductions to changes in occupational choice, job characteristics, and career paths. This in turn results in persistent gender gaps in earnings and gender representation across employment sectors.

This study builds on a relatively recent work of Berniell et al. (2025), who use the Survey of Health, Ageing and Retirement in Europe (SHARE) data to trace the consequences of motherhood, such as a sharp reduction in full-time employment, increase in part-time and self-employment, which means a transition to more flexible but lower-quality jobs ([Berniell et al., 2025]). The authors confirm the existence of these effects also for highly educated women, interpreting this as evidence of a misallocation of female talent following childbirth. The goal of this project is to take this analysis further and investigate more granular changes in occu-

pational choices of mothers and fathers after the birth of their children. We argue that having more specific evidence on some downgrading transitions between occupations after childbirth will actually allow us to claim misallocation and loss of female skills and talent.

In this project we aim to explore the following set of research questions:

- *When making an occupational choice at the beginning of the working career, do women who reveal preferences for having children in the future choose differently than the ones who do not anticipate having children in the future? Are these associations similar among men?*
- *How does the birth of the first and subsequent children affect female choices regarding their occupation? Does it trigger a change in mother's employment with respect to: the performed job, employer, overall occupation, type of employment sector? Is the effect similar for fathers?*
- And the last element that we are interested in, conditional on finding some significant gender differences in the labour market transitions after becoming: *Does the occupational change lead to misallocation of skills and/or talent?*

Methods & Data

This study is based on two sources of data. First of all, we employ data collected in the first wave of the second round of the Gender and Generations Survey (GGG-II). GGG-II was launched in year 2020 and by 2025 most of the participating countries have already finished the data collection. The wave covered a rich set of countries: Argentina, Austria, Belarus, Croatia, Czech Republic, Denmark, Estonia, Finland, France, Germany, Hong Kong, Kazakhstan, Lithuania, Moldova, the Netherlands, Norway, Sweden, Taiwan, Uruguay and United Kingdom, with some more on the way (Iceland, Italy, Lithuania, Poland and South Korea). The international perspective provided by the project is the first interesting aspect of this data - it covers not only the usual developed countries from Europe, but many other examples from different continents representing the group of lower-income countries and different cultures. GGG-II delivers information on the population aged 18 years and over, truncated on 50 years or more, depending on the country (and availability of other data sources for the older age group).

The GGG-II dataset allows us to evaluate the first research question that we are interested in, namely, *if women with parental preferences choose different occupations when entering labour market than the ones who do not want to have children in the future*. GGG-II seems to be a perfect source of information in this case, given that on the one hand it provides us with preferences on future childbearing of young adults and their individual evaluations of the perfect number of children in the family, together with that person's job title coded using the detailed international ISCO-08 classification. We analyze this data by calculating the probabilities of different occupational choices relative to the revealed future familial preferences, controlling for a set of likely confounders.

The second source of data for this project is the Survey of Health, Ageing and Retirement in Europe – SHARE, which is a panel survey conducted since 2004 and focused on individuals aged 50 years and over. While SHARE specifically covers only the European countries (and Israel), it may be possible to retrieve the comparable information on some other countries from its sister studies conducted in the US (HRS), England (ELSA), China (CHARLS) or South Korea (KLoSA; while many other sister studies exist, also in some less developed countries, they unfortunately lack the specific information we are interested in).

While SHARE survey usually collects a rich set of important contemporary information about each participant's current living conditions, an additional and unique advantage of the project is the availability of the life histories retrieved for each individual. This data covers childhood events, subsequent places of living, partnerships, birth and adoptions of children, and full working history. In the latter case we can recover every job spell with all the underlying characteristics (e.g. sector, working arrangement, but most importantly - detailed job title, coded also with the ISCO-08 ordination).

For the purpose of this project, we first compiled a detailed labour market history for all individuals on yearly basis over their life course, incorporating the years when their children were born. This allows us to conduct a descriptive analysis using Sankey diagrams on the scope of

changes that happen at the time of the childbirth with respect to parental occupation: from exiting labour market (short-term or long-term), through change of job within the same sector/occupation, to change of occupation. We examine these changes for both mothers and fathers, for different age cohorts and by country and region of Europe. This provided us with a strong basis for more detailed event study analysis, where we explore how the labour market participation changes over time, with the birth of a child as the event of interest. At the later stages of the project we consider supplementing this analysis with a matching procedure (e.g. PSM scheme or similar), in order to be able to compare only a subset of mothers and fathers who have similar characteristics. All analyses will be conducted for the full sample and separately by country (if possible due to sample sizes) or countries grouped into distinctive regions of Europe (e.g. Nordic, Central, Eastern and Southern).

Another unique feature of the SHARE data that we utilize in this project is the availability of life history for both partners in the household, for a large subset of the total sample. This allows us to bring the analysis to the level of intra-household decisions regarding employment after childbirth - we can examine the occupational decisions related to childbirth not only for mothers and fathers on average, but of both of the parents.

Expected findings

The project aims to enrich the currently existing literature with some further evidence that childbirth triggers distinct and gendered patterns of occupational mobility, with mothers being much more affected than fathers. So far the literature on this topic focused mainly on more general labour market transitions - exits, shifts to part-time or self-employment. Our goal is to supplement it with findings on a more granular level, examining transitions between higher- and lower-ranked occupations that specifically offer greater flexibility at the cost of lower skill utilization and pay. Moreover, we will investigate also if women who anticipated having children at the beginning of their careers have self-selected into more family-oriented occupations, suggesting that expectations about future parenthood shape early career choices. The magnitude of these adjustments is likely to vary across countries and institutional contexts.

References

- Jérôme Adda, Christian Dustmann, and Katrien Stevens. The Career Costs of Children. *Journal of Political Economy*, 125(2):293–337, April 2017. ISSN 0022-3808. doi: 10.1086/690952. URL <https://www.journals.uchicago.edu/doi/10.1086/690952>. Publisher: The University of Chicago Press.
- Nikolay Angelov, Per Johansson, and Erica Lindahl. Parenthood and the Gender Gap in Pay. *Journal of Labor Economics*, 34(3):545–579, 2016. ISSN 0734-306X. URL <https://www.jstor.org/stable/26553218>. Publisher: [The University of Chicago Press, Society of Labor Economists, NORC at the University of Chicago].
- Inés Berniell, Lucila Berniell, Dolores de la Mata, María Edo, Yarine Fawaz, Matilde P. Machado, and Mariana Marchionni. Motherhood and the allocation of talent. *Applied Economics*, 57(44):7073–7089, September 2025. ISSN 0003-6846. doi: 10.1080/00036846.2024.2387861. URL <https://doi.org/10.1080/00036846.2024.2387861>. Publisher: Routledge eprint: <https://doi.org/10.1080/00036846.2024.2387861>.
- Marianne Bertrand, Claudia Goldin, and Lawrence F Katz. Dynamics of the Gender Gap for Young Professionals in the Financial and Corporate Sectors. *American Economic Journal: Applied Economics*, 2(3):228–255, July 2010. ISSN 1945-7782, 1945-7790. doi: 10.1257/app.2.3.228. URL <https://pubs.aeaweb.org/doi/10.1257/app.2.3.228>.
- Henrik Kleven, Camille Landais, and Jakob Egholt Sogaard. Children and Gender Inequality: Evidence from Denmark. *American Economic Journal: Applied Economics*, 11(4):181–209, October 2019. ISSN 1945-7782. doi: 10.1257/app.20180010. URL <https://www.aeaweb.org/articles?id=10.1257/app.20180010>.

Henrik Kleven, Camille Landais, and Gabriel Leite-Mariante. The Child Penalty Atlas. *The Review of Economic Studies*, 92(5):3174–3207, October 2025. ISSN 0034-6527. doi: 10.1093/restud/rdae104. URL <https://doi.org/10.1093/restud/rdae104>.