The Impact of Parenthood on Labour Market Outcomes of Women and Men in Poland

Radost Waszkiewicz[†] and Honorata Bogusz[‡]

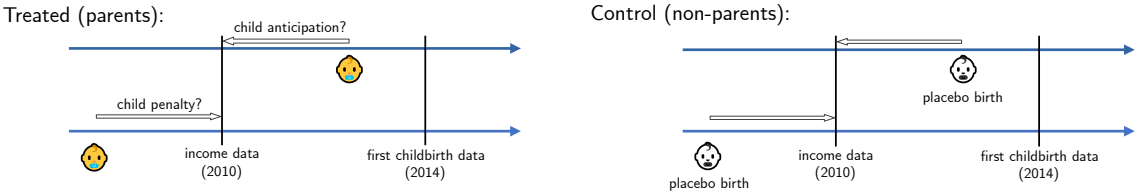
[†] Institute of Theoretical Physics, Faculty of Physics, University of Warsaw

[‡] Interdisciplinary Centre for Labour Market and Family Dynamics (LabFam), Faculty of Economic Sciences, University of Warsaw

Abstract

We analyse gender gap in income in Poland in relation to parenthood status, using the placebo event history method adjusted to low resolution data, and two waves of Polish Generations and Gender Survey (2010, 2014). Contrary to similar studies conducted in Western Europe, our analysis uncovers a large degree of anticipatory behaviour in women who expect to become parents. In contrast, income of eventual fathers is higher than that of non-fathers both before and after birth, suggesting that the fatherhood child premium is driven primarily by selection. We compare gender gaps in income and wages of women and men in the sample with those of individuals in a counterfactual scenario where the entire population is childless. We find no statistically significant gender gaps in the counterfactual scenario, thereby concluding that the gender gaps in income and wages in Poland are driven by parenthood and most likely, by differences in labour market participation.

Method



Data from the first wave of GGS (2010) are used to measure income while first childbirth year is picked from the second wave (2014). We use birth events in years 2010-2014 to assess anticipatory behaviour of parents and earlier births – to measure child penalties. These are compared with a control group of non-parents who are age-matched to parents using a modified *placebo event* method. We computed analytical expression of income as a function of time since birth under re-randomisation of assigned placebo births in the control group.

Context

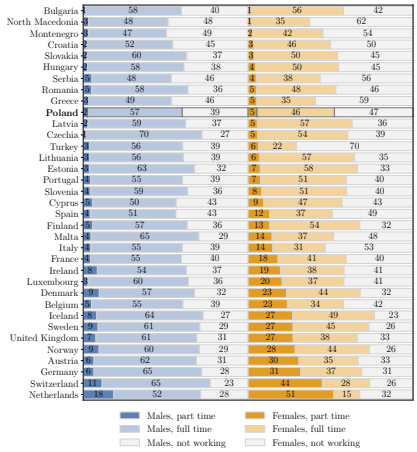


Figure 1. A cross-country comparison of labour force status in percent, 2014 (Labour market data: EU-LFS aggregates; Population by age group: Eurostat). Poland shows very small shares of part-time work in both men and women compared to countries like Germany or UK.

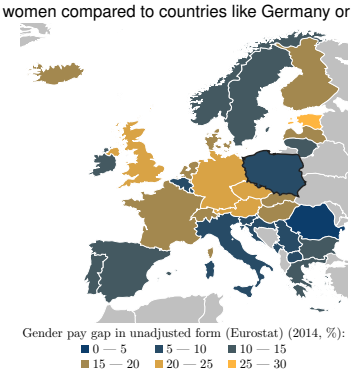


Figure 2. Unadjusted gender pay gap data from Eurostat show gender differences in hourly earnings. In this methodology, countries like Romania, Italy, and Poland share a very low (below 5%) value of GPG.

Results

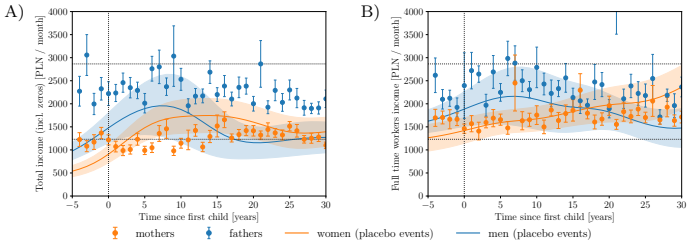


Figure 3. A) Mean of individual income of mothers and fathers (post tax, including individual transfers and individuals with no income and excluding household transfers) as a function of time since first childbirth, compared with the control groups of childless individuals estimated with the placebo event method. The horizontal lines show the minimum wage post tax (2014) and the mean wage of full-time (40 hr / week) workers in companies employing more than 9 workers (2014, tax adjusted). B) Analogous estimations to Panel A calculated for individuals working full-time.

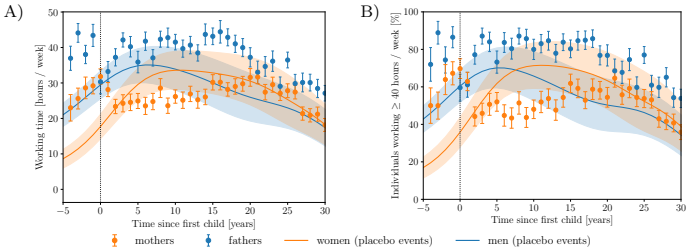


Figure 4. A) Mean number of hours worked as a function of time since first child compared with the control group of childless individuals estimated with the placebo event method. The unexpectedly high number of hours worked for mothers in the first year past birth is an artefact of the questionnaires design: women on maternity leave are asked about number of hours in the last job before taking the leave. B) Percent of population working at least 40 hours a week.

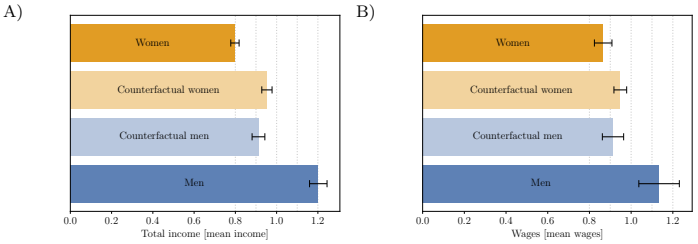


Figure 5. A) Total income and total counterfactual income as a multiple of the real mean total income with confidence bands determined by bootstrap (1 CI of 50 rounds). B) Hourly wages of people working 40 hours a week as a multiple of the mean value in that group (1 CI of 50 bootstrap rounds).
Incomes taken from 2010 survey and child data from 2014 survey (hence the adjustment includes anticipatory behaviours).

References

Kleven, H., Landais, C., Søgaard, J.E. (2019). Children and Gender Inequality: Evidence from Denmark. *American Economic Journal: Applied Economics* 11 (4): 181-209.

Casarico, A., Lattanzio, S. (2023). Behind the Child Penalty: Understanding what Contributes to the Labour Market Costs of Motherhood. *Journal of Population Economics* 36: 14891511.

Check out our working paper!

Waszkiewicz R. and Bogusz H. **(2023)** *The Impact of Parenthood on Labour Market Outcomes of Women and Men in Poland* arXiv:2306.12924

UNIVERSITY OF WARSAW | FACULTY OF ECONOMIC SCIENCES