

Notes

According to Kleven et al. (2019) in their article “Children and Gender Inequality: Evidence from Denmark”, children have long-term negative impacts on gender inequality, and the impacts of children have increased over decades. The three authors applied event study methodology to estimate the effects of children on all kinds of labor market outcomes, and then decomposed gender inequality to analyze the effect of children on gender inequality over time, finally expanded the baseline event study sample to explore the intergenerational transmission of child penalties.

Kleven et al. (2019) state that there is extensive literature focused on gender inequality and child penalties. Human capital, occupation, discrimination and child penalties are widely used to explain the gender gap in the labor market. The current research focuses on the child penalties and gender inequality labor market in Denmark. Compared with many other countries, Denmark as a Scandinavian country offers a wide range of beneficial family policies in favor of women labor participation. However, many people in Denmark still own a traditional gender attitude toward working, and they don't believe that mothers should work full time.

The data used in the current research come from the full-population administrative data from Denmark. The main ideas of the current research can be divided into three sets, and in different subsections, the authors applied different subsets of sample and different empirical strategies.

First, the authors focused on first childbirths between 1985-2003 and estimated the effects of children on earnings, labor participation, hours worked, wage rates occupation, sector and firm choices by event study methodology. Specifically, the authors run regressions of all kinds of labor market outcomes on a full set of event time dummies, age dummies and year dummies. Then, the authors defined a child penalty as the percentage by which women are falling behind men caused by children. The results suggest that children would have significantly negative impacts on mother's labor market performances (i.e. earnings, labor participation, hours worked, and wage rates) and almost no effect on father's earnings for both short term and long term. Additionally, the child penalties on working hours, labor participation, wage rates have nearly equal contributions to the child penalties on mothers' earnings. At the same time, the results suggest that motherhood would motivate women to work in a family-friendly occupation, sector or firm. Mothers are less likely to engage in a high-skilled job or be a manager, while they are more likely to choose a public sector job or work in a family-friendly firm.

Second, the authors decomposed gender inequality into children-related inequality, education-related inequality and residual inequality. The authors run regressions of earnings on the interactions of event time dummies and year dummies, age dummies and year dummies and also education dummies. Then, the authors applied a dynamic Oaxaca-Blinder decomposition approach to decompose the gender inequality. The results suggest that the fraction of child-related gender inequality over the total gender inequality has increased from 40% in 1980 to 80% in 2013, while the total gender inequality has dropped from 46% to 24%. The results also imply that the gender inequality in earnings is almost all driven by child penalties.

Third, the authors expanded the administrative data to 1964 and explored the reason why female child penalties are so persistent. Based on the baseline models, the authors added more grandparents-related characteristics into models. The independent variable of our interest is the indicator related to maternal grandparents' relative labor supply. The results suggest that child penalties are transmitted through generations, which means the women coming from a more

traditional family may experience larger child penalties than the women coming from a less traditional family. Female child penalties are negatively correlated with the relative labor supply of the maternal grandmother.

Overall, this research analyzes the effects of children on gender inequality in the labor market and shows an increasing contribution of child penalties on gender inequality. The persistence of effects of children can be explained by the intergenerational transmission of child penalties. This research contributes to the literature on gender inequality and child penalties in the labor market, and it also makes contributions to analyzing the potential endogeneity of children. However, some limitations exist in the research. For example, this research focuses on the post-child effects and provides little evidence on the pre-child effects. It mentions that pre-child effect has decreased over time but doesn't provide strong evidence to prove that. Plus, it doesn't put child penalties related theories in the context of Denmark. It might be helpful to analyze the history and causes of child penalties in Denmark in more details. Additionally, it might be better to include more comparisons between Denmark and other similar countries.