

Reading Notes: Children and Gender Inequality

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1 Summary

The paper "Children and Gender Inequality: Evidence from Denmark" written by Henrik Kleven, Camille Landas, and Jakob Egholt Sogaard explores what is the core reason that contributes the most to gender inequality and how this factor impacts on women's earnings.

In their paper, "child penalty" refers to the percentage loss of earnings after a woman gives birth to a child. Such penalty is divided into three subgroups-labor participation, hours of work, and the wage rate. They utilize the event study approach-a general approach where the researchers set up a event occurring time of zero and make a comparison over a variety of time-dependent variables between the estimation period (pre-event) and the observation period (post-event). The goal is to estimate the post-effect of the first child birth or the penalty effect across these three subgroups of earnings.

They are able to identify children-especially the first children birth as the dominant factor of gender inequality using the decomposition method where they separate the child-related inequality from the total inequality and measure how much it takes up in the difference between men's and women's earnings.

Additionally, the paper also discusses about the transmission of child penalties across generations. It compares the maternal grandparents and paternal grandparents and inspects the difference in earnings for the next generations.

2 Data and Empirical Strategy

The panel data of 470,000 births has been drawn from Denmark between 1980 to 2013 with men and women individuals and their respective earnings and other variables in year level.

The first method they use is the event study approach. The experiment marks the first birth of a child as event time zero with five years before the mark as the estimation period and ten years later as the observation period (ten years as long run and twenty years as very long run). Then they proceed to specify the regression of earnings by segregating event time, age, and year dummies so that the age and year effect can be accounted into so that they can eliminate factors of inflation, salaries change based on age, and other noises.

Moreover, another panel analysis they conduct is the occupation change after the first birth. Using the similar strategy, they set up manager, public sector, and female with children dummies to elaborate on the first birth impact of women's career.

Second, the paper introduces the decomposition method where it first construct a regression with an interaction term between the event time and year dummies and then calculates the mean gender gap in a specific year as three parts-gender inequality from child penalties, gender inequality from any other non-child coefficients, gender inequality from categorical differences in non-child factors. By combining these two steps, they can identify the trend of the penalties and report the trend of such penalties in different types of inequality.

Finally, they test another specification where they rank maternal and paternal parents of the first birth parents (so grandparents to the new-born babies) and recalculate the regression with such rank quantiles to find out the child penalty change across generations.

3 Findings and Conclusions

Here are some core finds from the research project:

- In the long run, with a sharp decrease in short run for earnings after the first birth of child, working hours, labor participation, and wage rates continue to diverge from men for women. In the very long run, women are more likely unwilling to work and their wage drops further, despite prolonged hours for those who chose to work.
- In the long run, women's occupational ranks continue to drive down within firms after the first birth and they are not likely to be a manager in comparison to men. Women who have given birth are likely to get a public sector job as it provides more healthcare and it is more family friendly with better child policies.
- Though the total gender inequality has been decreasing from 1980-2013, the child-related inequality is not trending down but slightly growing in this period. Gender inequality is majorly from birth of child especially the first child birth nowadays.
- The child penalties may likely be large for maternal parents and less for paternal parents. Women with traditional family background may receive more "penalties" compared to those who are not very conservative. The environment differences affect women's decision largely.

4 Limitations and Suggestions

Overall the paper has clear results that even though women's inequality situation has been alleviating for last couple of decades, they are still limited to

child-related inequality and this has been growing over time. The paper analyzes the magnitude of the child-birth penalty in multi-dimensions and finds that the environment of a family could enormously women's career decision.

As mentioned in the paper, it does not specify on the anticipation effect for women. Some women have the long run plan in having children so they can shorten their work hours or give up new opportunities to managerial roles before they give birth. This can be happening a couple years before the zero mark event time so it would be proper to take out such observations and rerun the regressions above. If the results are not largely deviating from previous ones, then the research should be valid.

Additionally, it would be optimal to separate the observation groups by companies or by company types. The separation of public and private sectors might seem satisfactory in most cases but by creating a firm level data, we can see what firms/industries are family friendly and can provide basis for women to enter such industries (or even help the government decide what policies to be implemented for the private sector).