

## **Unpacking the Sources of Changes in the Motherhood Wage Penalty Following First Birth in Japan**

Studies have explored changes in the motherhood wage penalty over the course of motherhood. However, the factors contributing to longitudinal changes in the motherhood wage penalty remain underexplored. This study examines the factors that account for the effect of first birth on women's wage trajectories over ten years following childbirth in Japan. This study employs event study models with fixed effects on data from the Japanese Panel Survey of Consumers, a nationally representative panel survey data covering the period 1993-2021. The results show that the motherhood wage penalty increases with years since first birth. Human capital depreciation, measured by cumulative years of non-employment, accounts for most of the increasing motherhood wage penalty over time following childbirth, whereas changes in job characteristics and work effort play a smaller role in explaining changes in the penalty. These results do not differ much by women's educational attainment. These findings suggest that the large role of human capital depreciation in suppressing mother's wage growth contributes to the gender wage gap, mothers' economic insecurity, and low fertility in Japan.