

# Reversing the declining fertility trend of Japan

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# Is low fertility problematic?

Solow growth model: Lower population growth ( $n$ ) results in higher per capita GDP ( $y$ )

Accumulated capital is shared by a smaller number of people and entails higher per capita capital stock and output.

# Is the problem so simple?

- Extension of Solow growth model
  - Lower fertility is problematic
    - Endogenizing the technological progress rate, scale effect – Large population, large number of scientists and engineers, high technology level (or growth)
    - Population aging indeed slows down economic growth (Maestas, Mullen, Powell, 2023)
  - Lower fertility is less problematic
    - Acemoglu and Restrepo (2020) provide counter argument claiming that population aging induces automation
- Distributional problems between young and old
  - Decrease in pension benefits under the unfunded pension system
  - High capital-labor ratio results in a lower return to capital
- Low fertility is arguably problematic

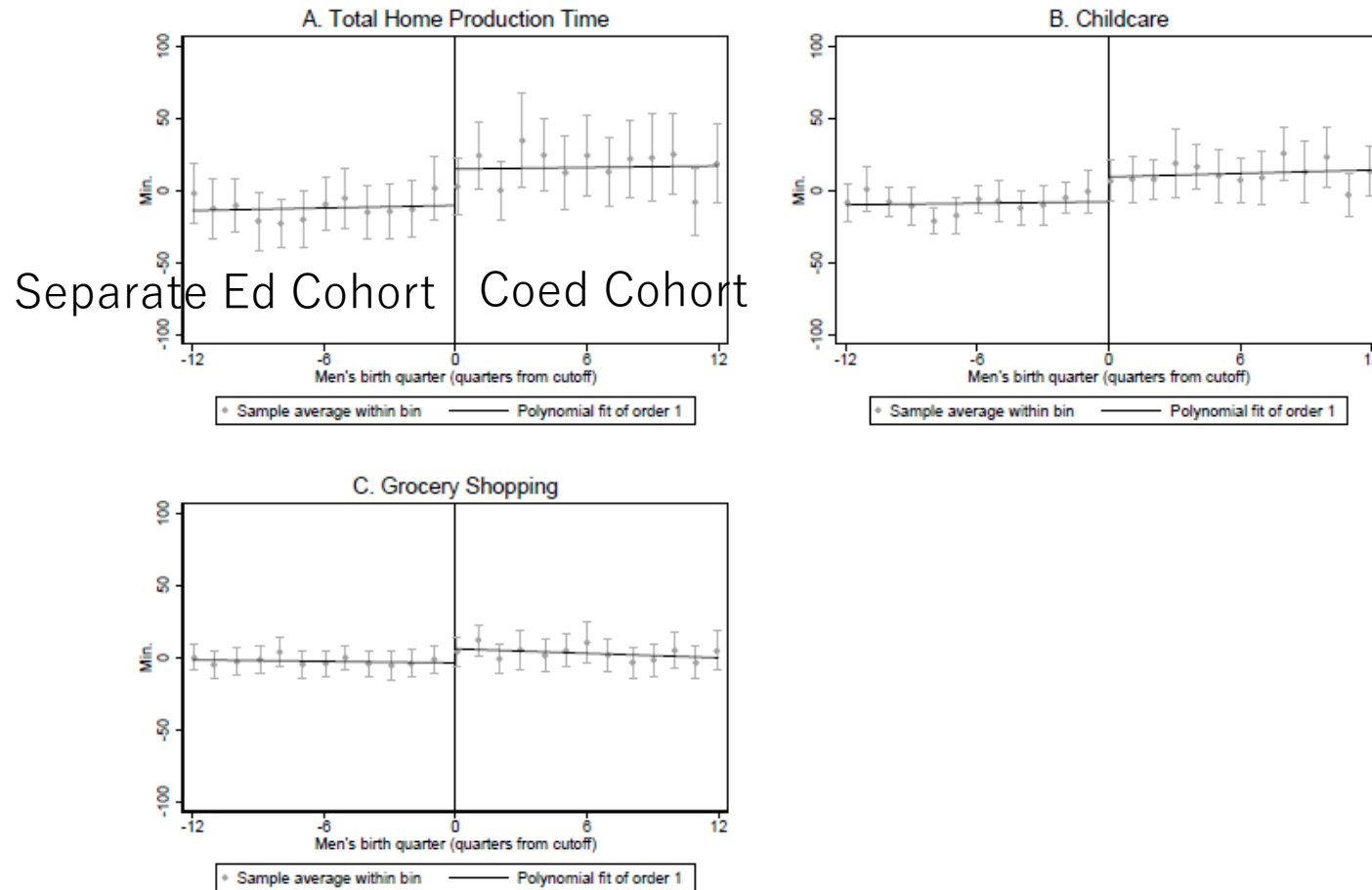
# Put more public funds into family policy?

- The pathway that the child subsidy increases fertility
  - Subsidy eases the trade-off between employment and fertility
  - Expand the availability of childcare services
- Subsidizing childcare costs
  - Does the price of childcare service increase?
    - If no, no supply response
    - If yes, how elastic is the supply?
    - If supply is inelastic, the benefit falls on the service providers
- Supply elasticity of childcare workers?
  - Do the increase in service price increase wages and employment of worker?
  - Answer is no in the case of elderly care workers (Kondo, 2019)
- Narrow path for the expansion of public funds to increase fertility
  - Expanding public funds may generate rent-seeking opportunities in the industry

# Changing the division of housework between women and men

- Education can change the gender norm
  - Coeducation in household economics in junior high school induced men's involvement in household production (Hara and Rodrigues-Planas, 2021)

Figure 1: Men's Weekend Home Production Time



Hara and Rodrigues-Planas  
(2021)

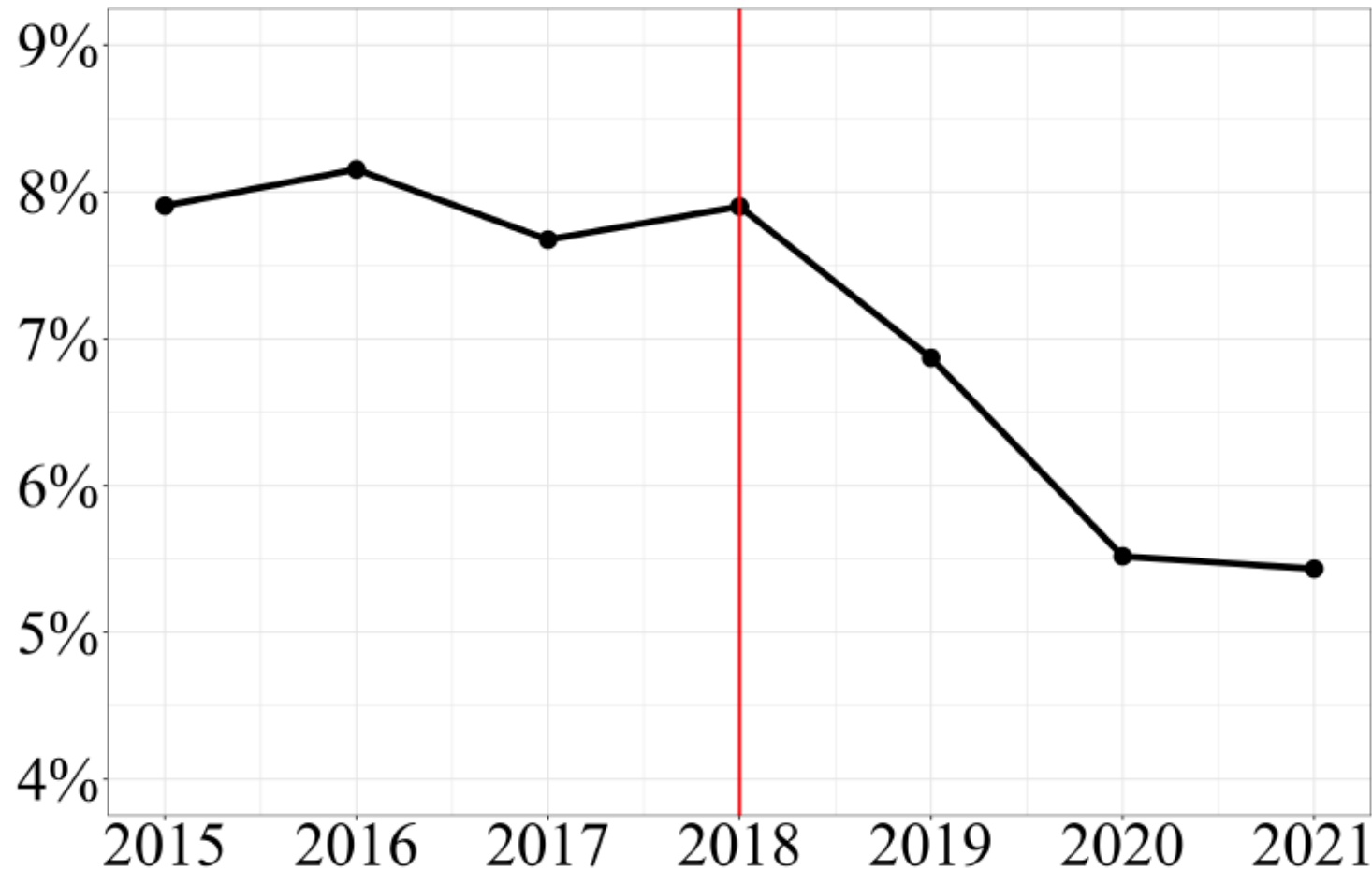
Source: 2016 JTUS.

Notes: The analysis sample consists of married individuals born between April 1974 and June 1980 excluding April 1977; that is 12 quarters before and after the threshold. The X-axis shows the running variable (normalized quarter-year of birth). The vertical line is at the threshold, which is normalized to zero. The Y-axis shows the residuals from residualizing out monthly seasonality from each outcome variable. Birth-month fixed effect, day of the week, and prefecture are controlled for to calculate the residuals. The dots in the figure are the within-bin sample means, and the vertical bars on them show the 95% confidence intervals.

# Changing the division of housework between women and men

- Curbing long working hours is underway
  - The government impose the maximum overtime at 45 hours per month
  - Strict regulation on work hours implemented in 2019 indeed reduced the fraction of workers who work 50+ hours per week (Ogawa, 2023)
  - Regulating hours worked is the heart of the Labor Standard Act, and the Ministry of Health, Labor and Welfare can enforce the regulation through Labor Standard Inspection Office

# Fraction of workers works 51+ hours per week



A strict upper limit applies to  
Large firm: 2019  
SME: 2020

Source: JPSED by Recruit  
works  
Note: Calculation by Kazuha  
Ogawa



# Narrowing gender pay gap

- 44 % of the raw gender wage gap (27%) can be explained by the gender wage gap within an establishment
- The government requires firms with 301+ employees to publicize the gender wage gap within an establishment starting by June 2023
- Studies on similar policies in Demark and the UK demonstrated the effectiveness, but not in Austria
  - Hara (2023) The Gender Wage Transparency Policy: Discussion on disclosure of wage differentials between men and women based on the Act on Promotion of Women's Participation and Advancement in the Workplace (Japanese)
  - <https://www.rieti.go.jp/jp/publications/pdp/23p009.pdf>

# Concluding remarks

- We need a big picture
  - We need to enhance our understanding of why combating low fertility is important
  - Clarifying the mechanism through which more public funds for family policies increases the fertility
- We need a small picture as well
  - Discussion on the details of policy design in Japanese context
  - Learning from foreign experiences and cutting-edge research
  - Disseminating details of our experiences to contribute to enriching a global public goods