

A Comparative Study of Fertility of Highly Educated Women: An Examination of The Gender Equity Hypotheses Using The Two-sex TFR

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The relationship between gender equity levels and fertility rates has emerged as a central focus in recent academic and policy discussions, drawing significant attention not only from advanced nations but also from developing countries. In Japan, where the population is undergoing a continuous decline, this is a critically important policy issue, yet scientific evidence remains scarce. In many advanced and emerging countries, the enrollment rate of women in higher education (or its growth rate) surpasses that of men in the past decades. The evolving educational composition of the childbearing population is considered one of the important forces of the shifts in societal norms, attitudes and gender roles among younger generations, potentially leading to new patterns of partnership and fertility behaviors.

This paper reviews two theoretical frameworks, namely, Gender Equity Theory and Gender Equilibrium Theory, which illustrate how gender context relates to fertility across time and space. Based on these two theoretical frameworks, this paper proposed the "Gender Equity Hypotheses" consisting of two corresponding hypotheses for each theory. Furthermore, in empirical analysis, we examined the period fluctuations in the birth rates of highly educated women using the two-sex total fertility rate (TFR2) as proposed by Schoen (1985). Notably overlooked in previous research, these fluctuations in birth rates among highly educated women are influenced by a phenomenon known as the "birth squeeze," arising from the difficulty of forming a union due to the relative decline/increase in the availability of potential partners. By utilizing TFR2, our study effectively mitigates the impact of the birth squeeze on the total fertility rate, allowing us to uncover fertility fluctuations attributable to shifts in other behavioral factors related to highly educated women.

This study calculates TFR2 for four distinct time points from 1980 to 2010 using census microdata from Japan, Portugal, the United States, and France. We analyze whether the period fluctuations in TFR2 are consistent with the Gender Equity Hypotheses. The results unveiled through our analysis are twofold: First, when comparing TFR2 in 2010, we find substantial support for Hypothesis 1, suggesting that countries characterized by greater gender equity exhibit higher fertility rates among highly educated women. Furthermore, the dynamics of TFR2 within each country lend credence to Hypothesis 2, affirming that as gender equity advances, TFR2 among highly educated women rises, in accordance with the tenets of Gender Equilibrium Theory.

These findings, which underscore a positive association between enhancements in gender equity and fertility among highly educated women, resonate not only in Western countries but also notably in the Japanese context. These implications hold substantial significance for informing policy deliberations in Japan.

Keywords: gender, fertility, education, two-sex TFR, two-sex model, census data