## Measuring Couples' Fertility in Process of the New Transition in Japan: Effects of Marriage Delay, Educational Upgrading, and Couples' Behavioral Changes

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In this paper, the fertility changes among married couples in Japan are measured by wife's birth cohort, using results from a series of national representative fertility surveys, with special attention to those in the process of recent rapid fertility decline far below the replacement level - the new fertility transition. A unique feature of the modern decline in Japanese fertility is the fact that it has been accompanied by relatively stable marital fertility rates until around 1990. However, a certain decline in marital fertility has been witnessed during 1990's. This suggests that Japan is entering a new phase in its fertility transition. To identify pattern of the transition, and onset of the new phase, we reconstruct the history of Japanese marital fertility via examining 48 years of the wife's birth cohort grouped by age and birth order, using results from six national representative fertility surveys expanded over 25 years. In this course, decomposition of marital fertility reduction into effects of exogenous factors such as marriage delay and/or educational upgrading of cohorts on marital fertility is necessary to estimate reduction from couples' behavioral changes, since the former effects are not behavioral for married couples. The logistic regression framework is applied for this purpose. Some visual techniques such as the Lexis mapping are employed to understand what is happening in the marital fertility. With decomposition by the above factors and by birth order as well, they reveal a detailed process of marital fertility changes, and the onset of marital fertility reduction due to couples' behavioral changes in particular. The results indicate that the reduction from behavioral shifts within marriage was initiated by women's cohort born in around 1960-1, following the reduction from delay in reproductive process due to marriage delay among cohorts born in and after 1952-3. This suggests that the Japanese fertility transition have proceeded to a phase of substantial decline due to increase of the never-marrying and the having-fewerchildren within marriage along with the prolonged downturn from so called temp-effects by delay in marriage and birth.