Period Fertility Measures and the Structure of the Recent Japanese Fertility Upturn

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Although the age-specific fertility rate (births to mothers of a specified age over all women of that age) is widely referred to as an ordinary fertility measure, it is known that a couple of other measures based on different exposure to the risk of childbearing provide more stable values and allow us to assess fertility trends by removing a part of tempo distortions. These conditional fertility rates includes age- and parity-specific occurrence rates in which the birth orders of children are independent, age- and parity-specific occurrence rates with interconnectedness across parities, and duration- and parity-specific occurrence rates. Using fertility life table techniques with these agespecific occurrence rates, a synthetic measure of period fertility can be calculated. In this paper, we present an overview of trends in the conventional period fertility measure, TFR, and other indicators taking into account parity, and, based on a comparison of these indices, we estimate the role of declines in the tempo effect in the recent upturn in period TFR in Japan. Until the year 2005, although an increase in the exposure population due to postponement in the past few years did contribute to raising the TFR, a large drop in the exposure-specific rates led to a further decline. On the other hand, after 2005 through 2010, a half of the increase in the TFR is accounted for by an increase in the exposure population, and the rest of the increase is explained by an increase in the exposure-specific rates. Analyses by age group demonstrate that most of the increases due to a rise in the exposure-specific rates occur at the age of thirties and older.