

Fertility in metropolitan and non-metropolitan areas of Japan from 1980 to 2000

Masakazu YAMAUCHI, Hachiro NISHIOKA, and Shiro KOIKE

This paper has two purposes. The first is to analyze changes and disparities of fertility in metropolitan and non-metropolitan areas in Japan from 1980 to 2000, and the second is to examine the spatio-temporal structure of fertility in the Tokyo Metropolitan area, which is the region of lowest fertility in Japan.

Fertility in Japan is declining below the replacement level. In fact, the Total Fertility Rate (TFR) in 2003 was 1.29, which corresponds to the lowest-low fertility defined by Kohler et al. (2003). From a geographical viewpoint, recent Japanese fertility exhibits two characteristics. One is concerning the geographical pattern. The spatial profile of fertility was characterized by lower fertility in the west and higher fertility in the northeastern and southern part of the country in the “first demographic transition.” After the 1970’s, the geographical pattern of fertility changed and became characterized by lower fertility in the urbanized areas and higher fertility in the rural areas. Another feature is that the regional disparity of fertility increased although fertility at the national level declined.

The fertility index employed in this article is a standardized child-woman ratio. The standardized marital ratio and standardized child-marital woman ratio are calculated without using age-specific marital fertility rates and are also utilized to subdivide fertility into nuptiality and marital fertility. Regional units used in this paper are six types of metropolitan areas and one non-metropolitan area arranged by the Urban Employment Area advocated by Kanemoto and Tokuoka (2002). These seven areas are distinguished by the city size and cover all parts of the nation without overlapping. The results of the investigation can be summarized as follows:

1. A decline in fertility from 1980 to 2000 was observed in all seven areas. The area with the lowest fertility and the most rapidly declining fertility was the Tokyo metropolitan area, which is the most urbanized area in Japan. On the other hand, it was the non-metropolitan area that showed contrasting features to the Tokyo metropolitan area.
2. In all seven areas, marital fertility declined, and the decline of marital fertility contributed to the fertility decline.
3. The disparity in the regional profiles of fertility was mainly due to the regional differences in marital fertility. The effect of nuptiality on the regional difference in fertility was weaker than the effect of marital fertility. The disparity of the regional profile of fertility was characterized by the lower fertility in the urbanized areas with lower nuptiality and lower marital fertility and the higher fertility in the rural areas with higher nuptiality and higher marital fertility.
4. In the Tokyo metropolitan area, the urban structure of fertility was represented by a concentric zonal pattern characterized by lower fertility in the central zone and higher fertility in the outer zone. The concentric zonal pattern was seen in nuptiality and marital fertility.
5. The number of municipalities whose fertility was lower than the national average was increasing, and these municipalities were expanding from the central to the outer part of the Tokyo metropolitan area. In the suburban area, the number of municipalities whose nuptiality and marital fertility were both lower than the national average was increasing.