

A Spatial Perspective of Birth Delay in Croatia: Is Rural Population Decline a Limiting Factor of National Fertility Rates?

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The purpose of this paper is to explore urban-rural differences in fertility levels, urban-rural differences in fertility timing, and as well as to explore the spatial evolution of birth delay in Croatia. Data from 556 local units at three time points were used. The units were classified into cities, towns and suburbs, and rural areas. For comparison, data from Croatian regions and European countries were utilized. The research is based on descriptive statistics, spatial statistics, and geovisualizations. A specific methodological framework was employed to monitor birth timing in units lacking data on the mean age of (first) birth. The main approach is relying on the ratio of age-specific fertility rates. First, fertility decomposition into younger (ASFR15-29) and older (ASFR30-49) age groups was conducted. Tracking their changes between three points in time enabled the indirect detection of birth timing and its role in the fertility level. Secondly, a special indicator, the ASFR Index, was formed by calculating the ratio of ASFR15-29 and ASFR30-49. The indicator proved to be particularly useful in detecting spatial patterns of fertility timing. According to the results, in the period 2001–2011, urban-rural fertility differences decreased due to births in urban areas at older ages. In the period 2011–2021, with the rise of later births in rural areas, differences increased again. The Zagreb region, cities, Istria, Croatian Littoral, and Dalmatia lead in later births. Spatial analysis presented extremely unequal population distribution and a negative fertility–population size link. Further shifting towards reducing the proportion of rural population could gradually have a slightly negative impact on the national fertility level.