

Demographical Migration Analysis of 20 Cities in Niigata Prefecture: Part 1: Overview of the Migration Pattern Change from 1980 to 2015

Shiro KOIKE

In this study, changes in number of migrants in 20 cities in Niigata Prefecture from 1980 and 2015 are analyzed using *Niigata-ken jinkou ido chousa* (Migration Survey in Niigata Prefecture) provided by Niigata Prefecture. The data are divided into intra-prefecture migration and inter-prefecture migration. For the analysis, the indirect standardization method is applied to clarify the change of mobility of migration and the influence of the population structure on the migrant numbers in each city in Niigata Prefecture.

With regard to intra-prefecture migration, the results of the analysis reveal that population structure factors have had a great influence on both in-migration and out-migration, and the population decrease and aging of cities in the prefecture were directly related to the decrease in the migrant numbers of each city. As for intra-prefecture migration, the tendency of excessive in-migration in Niigata City and Nagaoka City, which are central cities in the prefecture, was strengthened, whereas in other areas the tendency of excessive out-migration has been increasing. On the other hand, with regard to inter-prefecture migration, the demographic factors of change in the frequency of out-migration and in-migration are different; namely, population structure and mobility factors had the greatest influence on the decrease in out-migration and in-migration, respectively. In particular, the cities with higher rates of decreases in out-migration due to population structure factors tended to show significant decreases in in-migration mobility, suggesting that there are some relationships between population structure factor and mobility factor.

This study reconfirms the effectiveness of migration analysis using the indirect standardization method and suggests a part of the method for utilizing population statistics provided by local governments such as prefectures.