

Supplementary. Detailed definition of the municipal units

Under the system of municipal division that has been in operation since the January 1, 2009, and that has mainly been used to delineate local governments, 83 regions of Russia were divided into 2,369 municipal units (referred to hereafter as “districts”) in 2010. Three types of districts can be distinguished: 1,825 municipal areas with a mean population of 69,000, 516 urban areas with a mean population of 132,000, and 28 intra-city districts of Moscow and Saint Petersburg with a mean population of 585,000. Nearly the entire population of the intra-city districts and urban areas can be characterized as urban (100% and 97%, respectively), while about 60% of the population of the municipal areas can be considered rural.

Although the number of districts is large, the districts vary considerably in terms of their population size and land area: on average, the urban areas are 10 times larger than the intra-city districts, and are 10 times smaller than the municipal areas. This variability inevitably generates a certain degree of heterogeneity, and points to the presence of the modifiable areal unit problem, which can be seen as a limitation of this study.

It is worth mentioning that the population of Russia is distributed extremely unevenly across the country’s large territory. The majority of the population live in the historical core of Russia, with one-half of the population living on 5.8% of the country’s territory. The population density of the Asian part of Russia (which is similar to that of Australia or Canada) is more than 10 times lower than the population density of the European part of Russia (which is similar to that of the US). Moreover, since the end of 1980s, Russia’s population has been increasingly concentrated in the European part of the country, mostly due to the “western drift” in migration, and the more pronounced natural decrease in the population in the Asian part of the country^{Error! Reference source not found.}.