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# Analyzing Urban Population Change Patterns in Shenyang, China 1982-90: Density Function and Spatial Association Approaches

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**Abstract:**

Based on the subdistrict (*jie-dao*) data from 1982 and 1990 national population censuses, this research employs two approaches to investigate the urban population change patterns in Shenyang, China. The density function approach examines what function best characterizes its density distribution, how the density pattern has changed over time, how many centers can be identified in the city, and how influential each center has been on the citywide population distribution. Unlike the socialist cities in Russia, Shenyang has a negative density gradient, bearing more resemblance to western cities. A polycentric model explains the spatial variation of densities in Shenyang much better than a monocentric model. The spatial association approach analyzes the core-peripheral relationship between a city center and its neighboring areas. Both approaches show that people moved from the central city to suburbs, indicating a trend of population decentralization. This trend is attributable to the land use reform, central city renovation projects and improvements of suburban infrastructure and services.

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