



## Analysis of the Socio-Economic Spatial pattern of Population Development in the Settlements Units of Shebastar County<sup>1</sup>

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Received: 2024/02/02

Accepted: 2024/07/13

### EXTENDED ABSTRACT

#### PROBLEM STATEMENT

Today, the issue of inequality and spatial imbalances between urban and rural areas is an important topic for economists and regional planners. The existence of economic duality, the poles of growth, and the distribution of the rural regions are among the effects of this phenomenon, for this purpose, achieving a balanced and integrated development in the regional space, and creating a balanced and systematic hierarchy of settlements is one of the basic needs. It seems that paying attention to small settlements is one of the solutions to balance this situation. In this regard, the spatial distribution of the population in the countries, especially the developing countries, shows the imbalance in the population settlement network and the exploitation of territorial resources. In Iran, the spatial distribution network of the population has transformed and changed with more or less speed in the past decades following the transformation of socio-economic conditions, which is not without problems. For this reason, by properly organizing the system of rural settlements in the field of regional spaces, taking into account other spatial elements, the goals of land development will be effectively achieved.

#### THEORETICAL

In geographically based theories for spatial evaluation and analysis, several cases` can be mentioned, therefore, based on the growth pole theory economic activities concentrated in one center can be the basis for the growth of other groups in innovative ways. According to the emphasis of this approach on the activity of new industries, the growth pole is considered a dynamic and highly coordinated set of industrial units around a scout sector or vanguard industry. In addition, the basic priority of rural development was the rural economy, and planning for rural development

1. doi: 10.22051/ijosed.2024.46366.1035

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relies on a lack of concentration, participation, and attention to the characteristics and capabilities available at the local level. In this connection, the spatial distribution or flow of the population in different areas, or other words, from one part to another, follows a different homogeneity, which is also dependent on the social base of that area.

## RESEARCH METHODOLOGY

In the spatial analysis method, tools such as spatial autocorrelation, high and low clustering, hot spots, cluster analysis, inverse spacing, Thiessen polygon, etc. are used in ArcMap software. The basic assumption in the spatial analysis method is that each factor is related to a specific subset. In this way, there is a definite classification regarding the number of research factors. Therefore, the current research is practical and the primary data is prepared with an analytical-descriptive approach by collecting data in the form of statistics, documents, and libraries. The statistical population of this study is 73 villages of Shabstar city. In this research, first, the geographical coordinates of each village were obtained. Then, the population of each village was extracted using the population and housing census statistics of 2015 and 2015. Finally, the initial data was entered into ArcGIS Pro 3.1 software and tools. Spatial analysis and spatial statistics were used to analyze the spatial distribution of the population in the villages.

## RESEARCH FINDINGS

Spatial data analysis is very efficient and shapes spatial points or addresses (such as geographical, social, or features) in spatial modeling with time series analysis. The patterns obtained using spatial analysis tools make it possible to identify cross-sectional and longitudinal correlations by locating entities in a variety of maps. By generalizing concepts such as demography and psychometrics, etc., spatial models can show a variety of influences (spatial hotspots, spatial autocorrelation, and location change) that affect decision-making behavior (Hogblade, 2010). Also, in pattern explanation and spatial analysis, the global use of geographic information systems (GIS) and location analysis is expected to double by 2023. Based on this, data containing geographic information promises insight about it. According to this information, to achieve the primary results of the research as best as possible, it is necessary to first extract the demographic information of each village by using statistical data on population and housing in the years 2015 and 2016.

## CONCLUSION

The final results of the study of our population trend between 2015 and 2016 show the increase in population density with time. Based on this, according to the population hot spot in 1385, which was only in one part, this trend increased in the following years, and in the next 10 years, i.e., in 2015, it led to several population density hot spots. Despite the existence of settlements with a random pattern in Shabestar City, the population expansion will lead to the formation of cluster settlements in the future. In other words, the population is moving from a scattered to a clustered pattern.

**Keywords:** Spatial Analysis, Population Flow, Rural Settlements, Shabestar County.

**JEL Classification:** C31, R12, A39.

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