

基于 Leslie 模型对贵州省人口的预测与分析

[摘要] 随着社会的稳步发展，我国劳动力人口数量持续减少，老年人口数量急剧增加成为普遍现象。人口问题是我国从古至今都比较重视的社会问题，是国家、地区众多政策制定的重要依据，是能直接影响到国民生计的大问题。

本文利用 Leslie 模型，对贵州省 2010-2059 年的人口数量做出预测。在 Leslie 模型中，人口的年龄结构是一个重要的指标，也是影响人口增长的重要因素。我们提取出《贵州省 2010 年人口普查资料》中的相关数据，构造 Leslie 矩阵，建立相应的 Leslie 模型，预测贵州省 2010-2059 年的人口数量，并对人口老龄化、人口抚养比等一系列指标进行了预测。首先，我们先选取出人口分析中一些比较有意义的指标，如劳动力人口，老年人口等。通过预测出它们在 2010-2059 年的数据对它们未来的发展做出合理分析：可以得出贵州省在短期内不缺劳动力，但需加强劳动力结构的调整；贵州省的老年人口数量在这些年急剧增加，具有劳动能力的人口的负担也在不断加重。最后，对贵州省人口发展提出建议。

[关键字] 人口预测；MATLAB 软件；Leslie 模型

Prediction and analysis of population in Guizhou Province based on Leslie model

Abstract With the steady development of society, the number of our labor force continues to decrease, and the rapid increase in the number of elderly people has become a common phenomenon. The population issue is a social issue that our country has paid more attention to since ancient times. It is an important basis for the formulation of many national and regional policies, and it is a major issue that can directly affect the livelihood of the people.

This paper uses Leslie model to predict the population of Guizhou Province from 2010 to 2059. In the Leslie model, the age structure of the population is an important indicator and an important factor affecting population growth. We extracted the relevant data from the "Guizhou Province 2010 Census Data", constructed the Leslie matrix, established the corresponding Leslie model, predicted the population of Guizhou Province from 2010 to 2059, and analyzed a series of population aging, population dependency ratio, etc. The indicators were predicted. First, we first select some more meaningful indicators in the demographic analysis, such as the labor force, the elderly population, etc. By predicting their data from 2010 to 2059, a reasonable analysis of their future development can be made: It can be concluded that Guizhou Province will not be short of labor force in the short term, but needs to strengthen the adjustment of the labor force structure; the number of elderly people in Guizhou Province has been With the rapid increase, the burden on the population with labor capacity is also increasing. Finally, suggestions are made for the population development of Guizhou Province.

KeyWordsPopulation prediction; MATLAB software; Leslie model

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