Department of Management and Information Sciences	Key words	International Economics, Regional Science, CGE, IO table

Education

Nagoya City University Graduate School of Economics (Master's Program)
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Professional Background

Research Fellow in Chubu Region Institute for Social and Economics Research, Part-time lecturer at Chukyo University, Nihon Fukushi University, Meijo University, Nagoya Gakuin University and Aichi Institute of Technology

Consultations, Lectures, and Collaborative Research Themes

Population Movement, Empirical Analysis, Input-Output Analysis

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「Empirical analysis using econometrics」

Local economies are said to be stagnant and regions are said to be facing many problems. One of these problems is the declining population and its concentration in the Tokyo area. As the population declines, the demand for goods and services decreases, spurring the relocation of companies and further population decline. Under such circumstances, local governments need to make effective policies with limited financial resources. One approach that has been attracting attention is "Evidence Based Policy Making (EBPM). This is called evidence-based policy making, which uses econometric methods to analyze cause-and-effect effects and formulate effective policies.

In our laboratory, we use empirical data and conduct research to clarify the impact of policies on the behavior of residents and businesses through regression analysis.

Recently, they conducted an analysis of transportation infrastructure development and population movement. The results suggest that infrastructure development has different effects on population movement depending on the mode of transportation. Throughout the analysis, it is clear that improvements in air and rail travel times tend to increase population outflow with respect to population mobility for all age groups and for young people. Although many local governments are working to improve transportation infrastructure as an aid to regional revitalization, there is a risk that these policies will accelerate population outflow and not produce the desired results. Therefore, the study suggested that when considering regional development, it may be necessary to take into account the strong impact of population outflow due to transportation infrastructure improvements and simultaneously consider economic policies to counteract that impact.
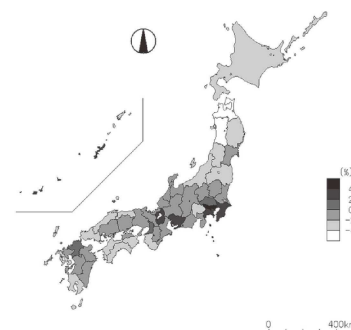

Fig.1 Population Growth Rate by Prefecture (2005-2010)

「Input-output and Computable General Equilibrium model analysis」

The input-output table, which is the basis of the input-output analysis, is a bird's-eye view of the regional economy. It is possible to determine at a glance which industries are highly connected to which industries and which industries are strong within the regional economy. In addition to analyzing the industrial structure, it is also possible to analyze the impact of specific policies on the local economy and local industries. For example, if public investment increases final demand in a particular industry, the demand for intermediate goods used by that industry will increase to meet that demand. In this way, demand increases up the chain. It is possible to analyze the increase in production for each industry.

Iwamoto (2020b) observed the current status of the aircraft industry, a growing industry in Japan, using an inter-industry relations table, and estimated the amount of production induced by the aircraft industry in each prefecture using inter-industry relations analysis.

The CGE model is used to analyze the effects of trade policy and other factors on the utility of local residents and local industries.

Fig.2 Input-Output Table

Major academic publications

Iwamoto, T. (2019) "Effect of transportation time by railway on regional population outflow: A study of centralization in Tokyo." *Journal of Economic Policy Studies,* 15(2), pp: 121-132. (In Japanese)

Iwamoto, T. (2020a) "Effect of Transportation Time by Railway on Regional Population Outflow." *Journal of Household Economics*, 52, pp: 79-100. (In Japanese)

Iwamoto, T.(2020b) "Study of the Aircraft Industry in the Chubu Region Using an Input-Output Table" *History and Present of Chita Peninsula*, 24, pp: 57-82. (In Japanese)

Itakura, I., & Iwamoto, I. (2021) "Applying Input-Output Table of Aichi Prefecture in Japan to GTAP Data Base." *The Journal of International and Regional Economics*, 20, pp: 21-32. (In Japanese)