A CGE Analysis of Educational Opportunities, Human Capital, and Regional Income Distribution Using Regional SAM

Topic: CGE and Econometric Input-Output Modeling
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INTRODUCTION

Although the level of human capital is important in economic growth, the quality and distribution of human capital is an essential element in economic development. Despite the importance of wealth and physical capital distribution is discussed in the literature, small literature exists on distribution of human capital. We are going to investigate how important is the distribution of human capital in Income equality and development? And what are the impacts of redistribution of opportunities on human capital? This paper specifies the relationship between educational opportunities, human capital, and income equality. We measure the effects of redistribution of opportunities on skilled labor supply in different regions in Iran. We also examine the changes in regional production, welfare, and regional income Gini index.

DATA

A regional SAM for Iran is estimated which includes 30 regions with 15 production sectors in each region (450 production sectors). The SAM is extended to include regional opportunity index. We also estimate "human capital" for each region. Each region has its endowment of labor, physical capital, and educational opportunities.

METHOD

We employ LMGE-MR, a Multi-Region small open economy Computable General Equilibrium model for Labor Market, to investigate the impacts of redistribution of opportunities. The model focuses on labor market interrelations and human capital formation. We show that the amount of human capital in each region is determined by its educational opportunities. In other words, when educational opportunities are available, the unskilled labor is able to promote to skilled labor, and therefore produce more commodities and generates more income.

RESULTS

The results indicate that creating equal opportunities reduces inter-regional income Gini coefficient significantly from 0.25 to 0.11. The more surprising result is that one percent decline in educational inequality will lower income equality more than one percent. Therefore, the conclusion is that redistribution of educational opportunities is an appropriate way to decline income inequality between regions in Iran.