


# Extended Input–Output Model for Urbanization An Empirical Test Using Chinese Data

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## SUBJECT AREAS

*International Economics*

## KEYWORDS

*demography, urbanization, migration, input-output analysis*

## Abstract

Although the input-output model has been widely used for both pure economic analysis and environmental issues, demographic analysis has been relegated to the periphery in the input-output literature. Since the 1980s, Batey and his various co-researchers have made a significant contribution to the progress of economic-demographic modeling from the perspective of unemployment in the context of shrinking regional economies. This study focuses on another demographic aspect of the urbanization process by developing an extended input-output model for urbanization, using the so-called Batey-Madden model, which focuses on incorporating labor accounts with the input-output model. The study proposes a new “urbanization multiplier,” which implies strong population concentration in cities based on an employment multiplier in urban areas and labor allocation possibilities between urban and rural areas. According to a preliminary application to Chinese urbanization, economic structure can be said to determine the urbanization multiplier, indicating the extent of employment opportunities created in urban areas, and the size of the population attracted from rural areas. Furthermore, the study considers a wide range of possible applications of the input-output table in terms of urbanization.

## Full Text

Due to technical limitations, full-text HTML conversion of this manuscript could not be completed.

However, the manuscript can be downloaded and accessed as a PDF.

## Figures

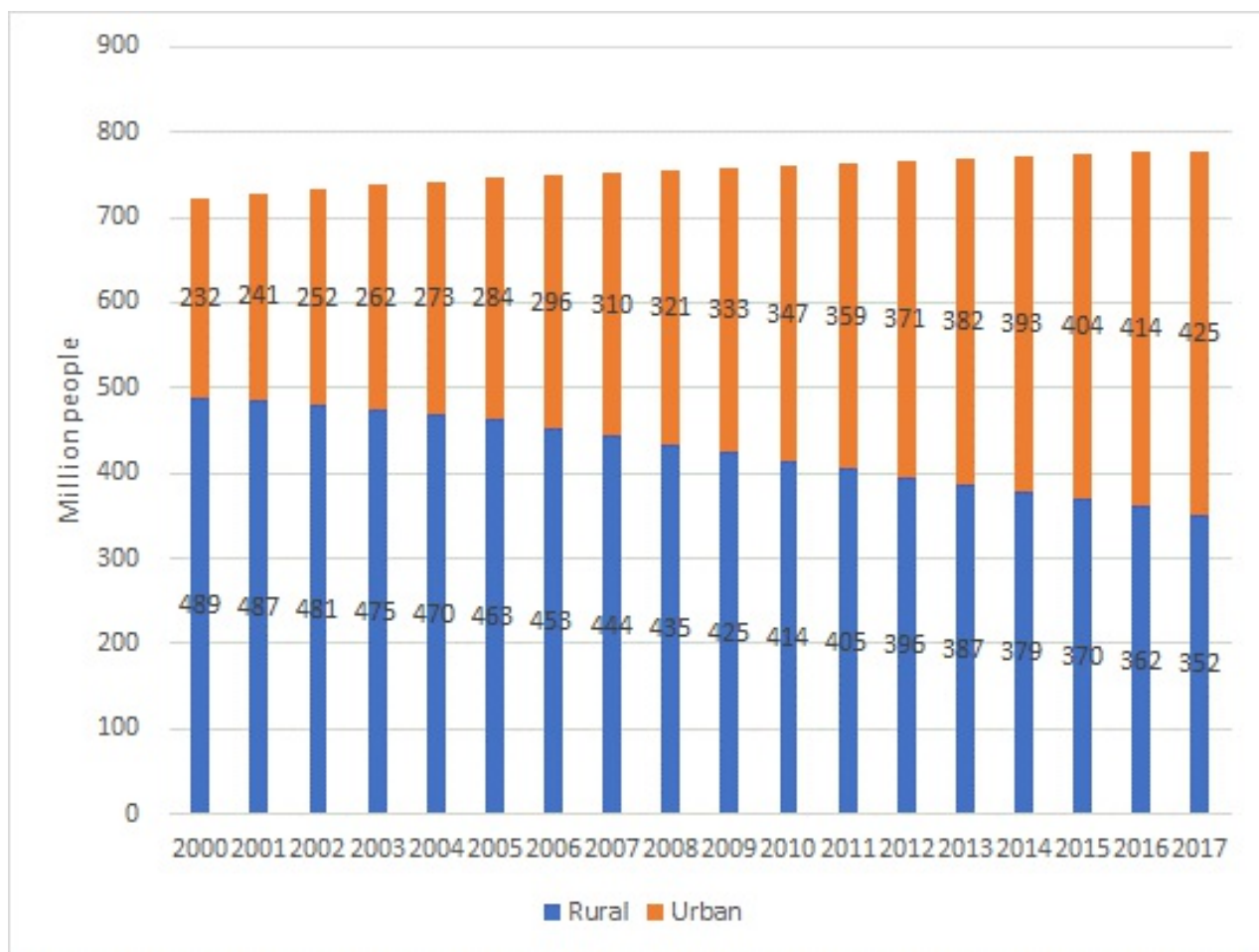


Figure 1

Economically active population in rural and urban areas Source: China Statistical Yearbook

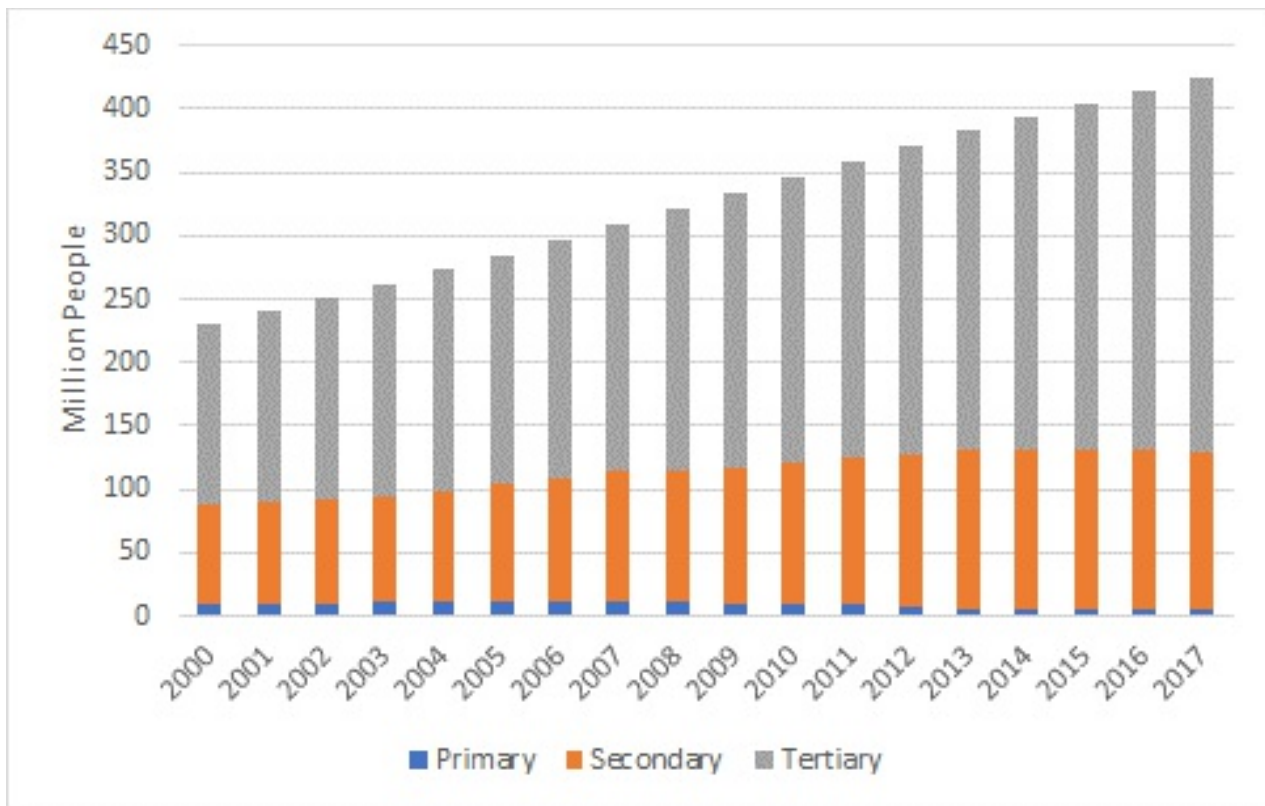


Figure 2

Number of employed in urban areas

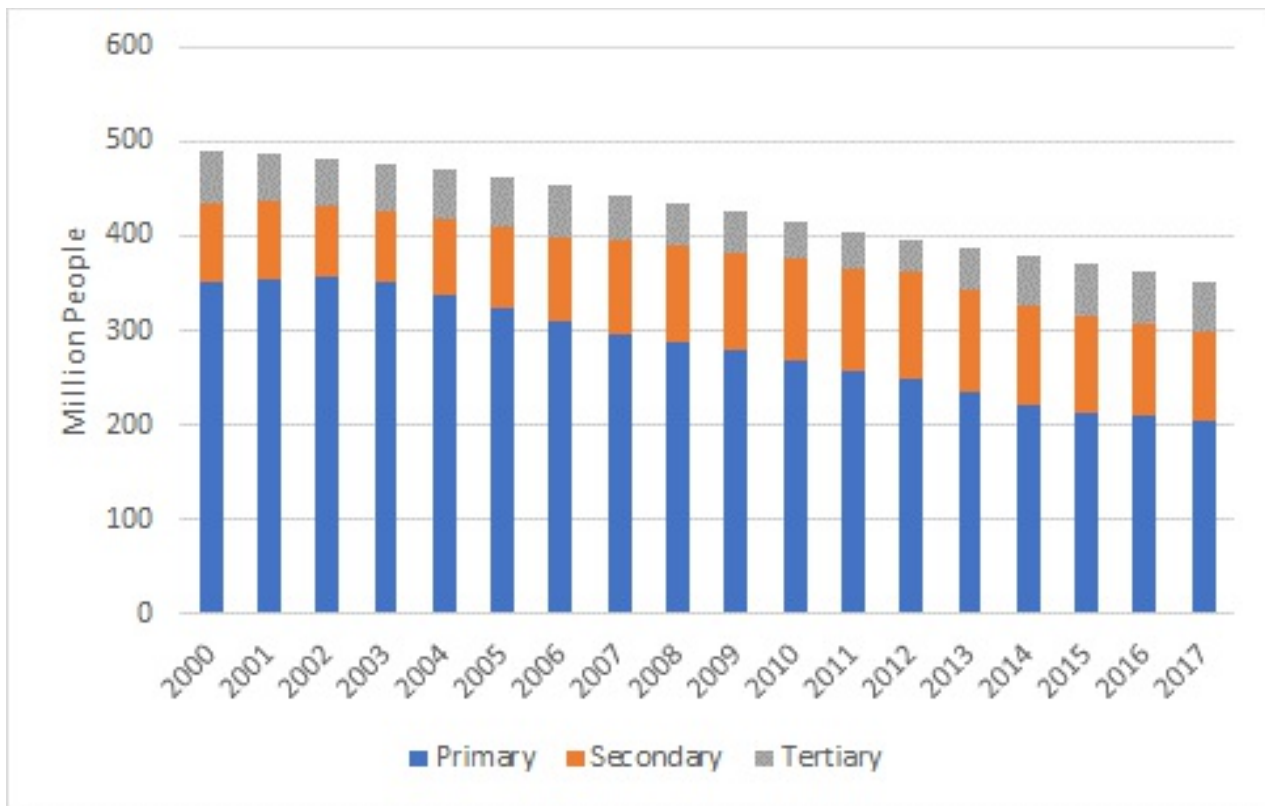


Figure 3

Number of employed in rural areas Source: Estimated from the China Statistical Yearbook

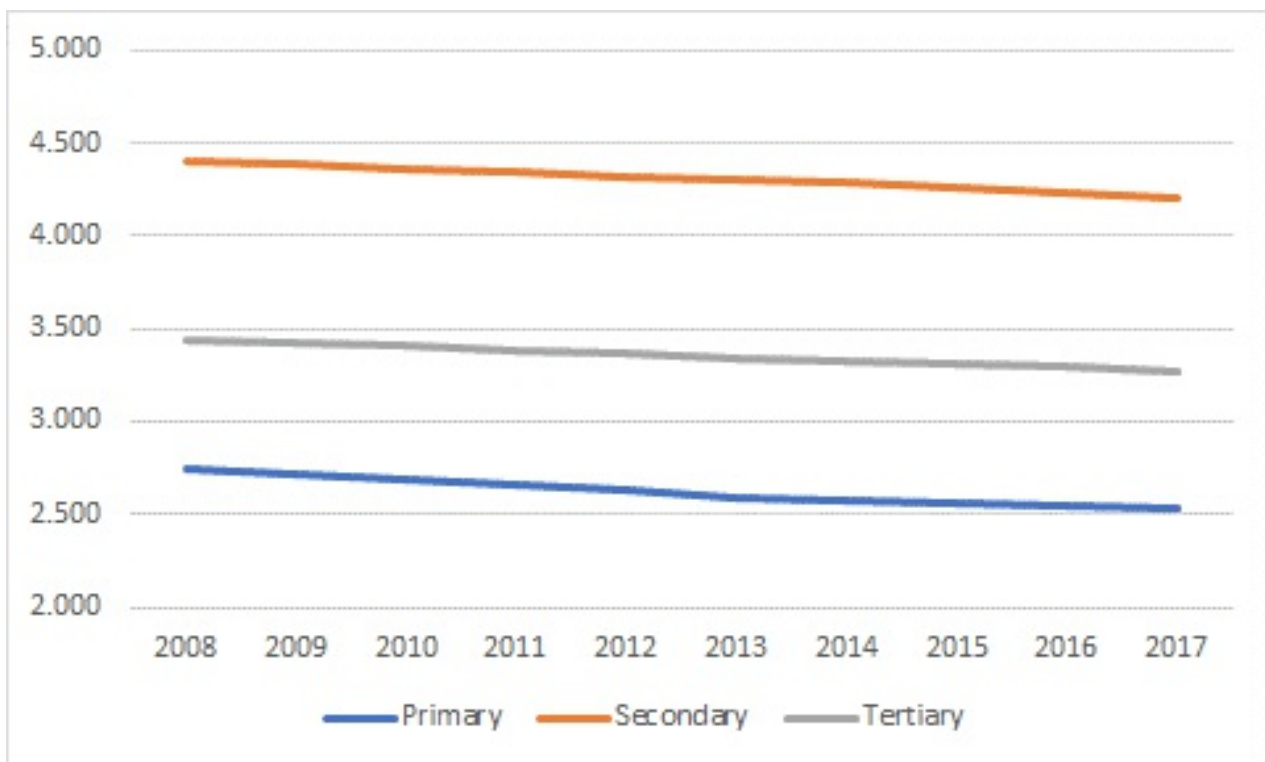


Figure 4

Output multiplier (backward linkage)

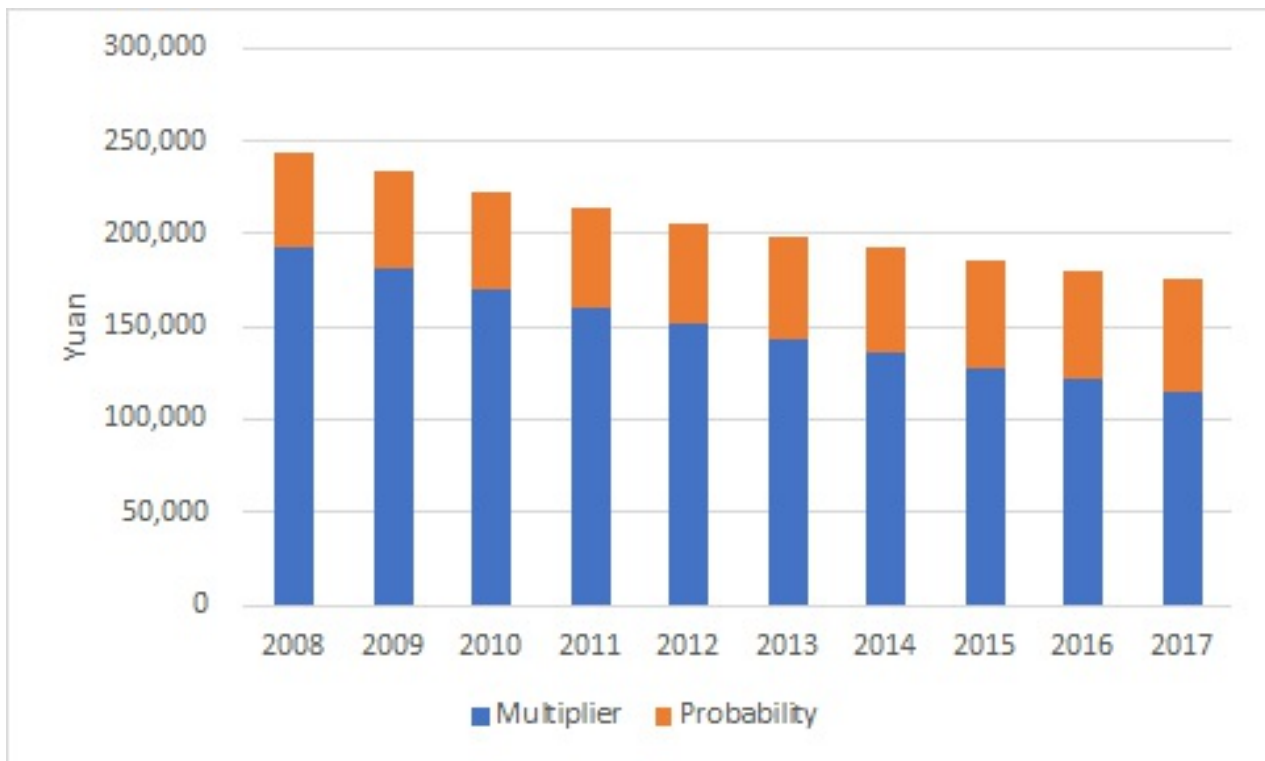


Figure 5

Output induced by consumption

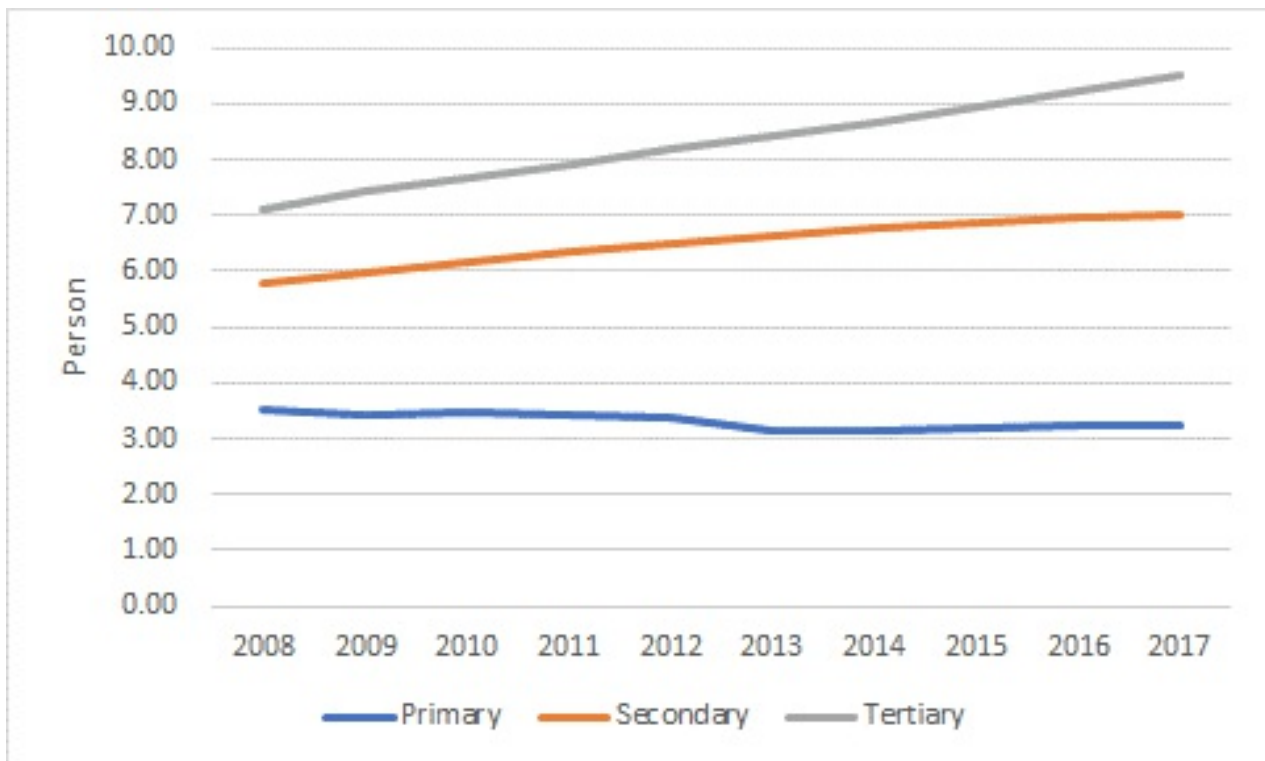


Figure 6

Induced urban employment

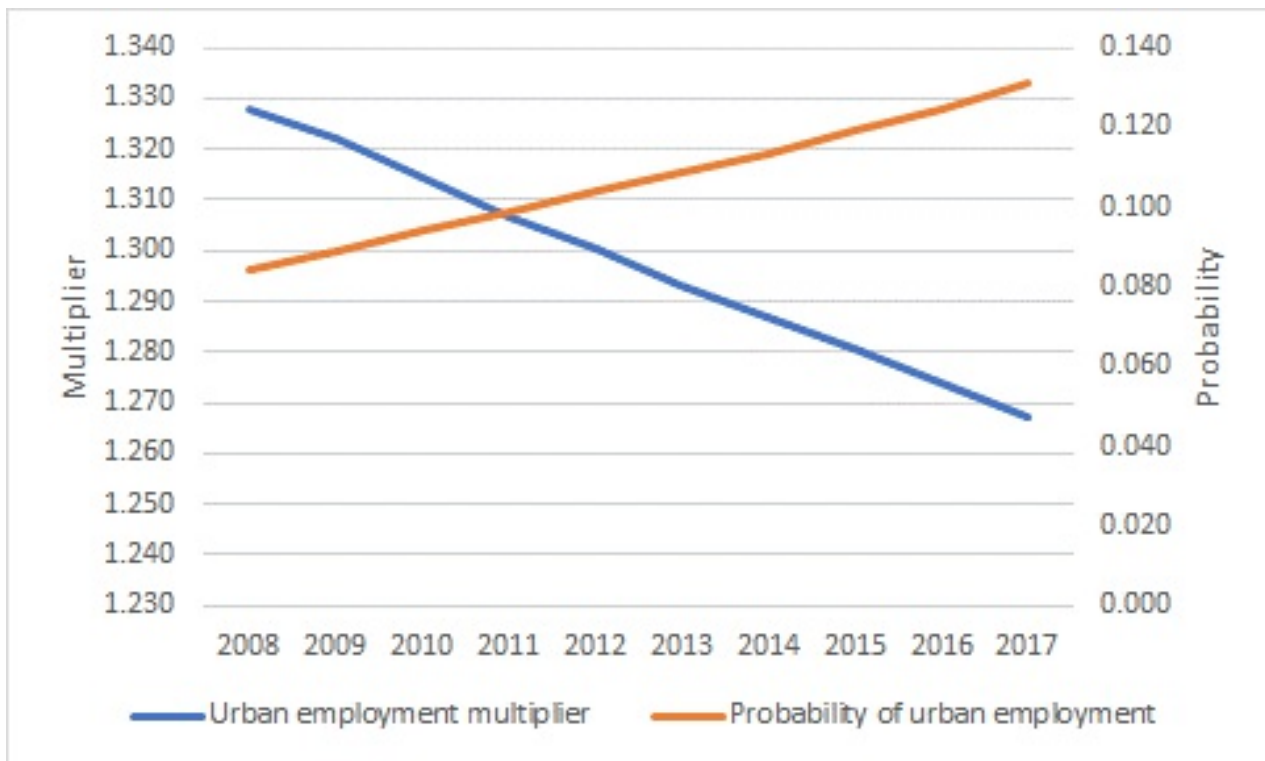


Figure 7

Urbanization multiplier

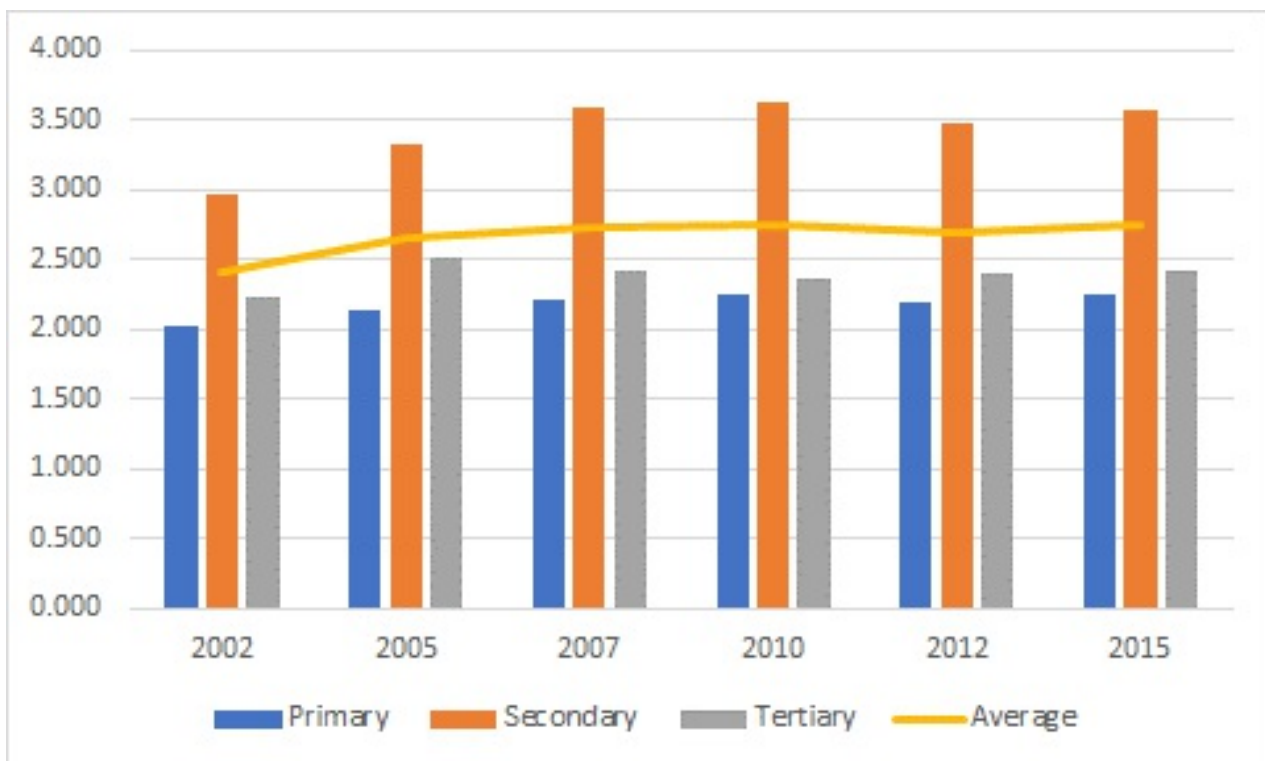


Figure 8

Conventional Leontief multiplier

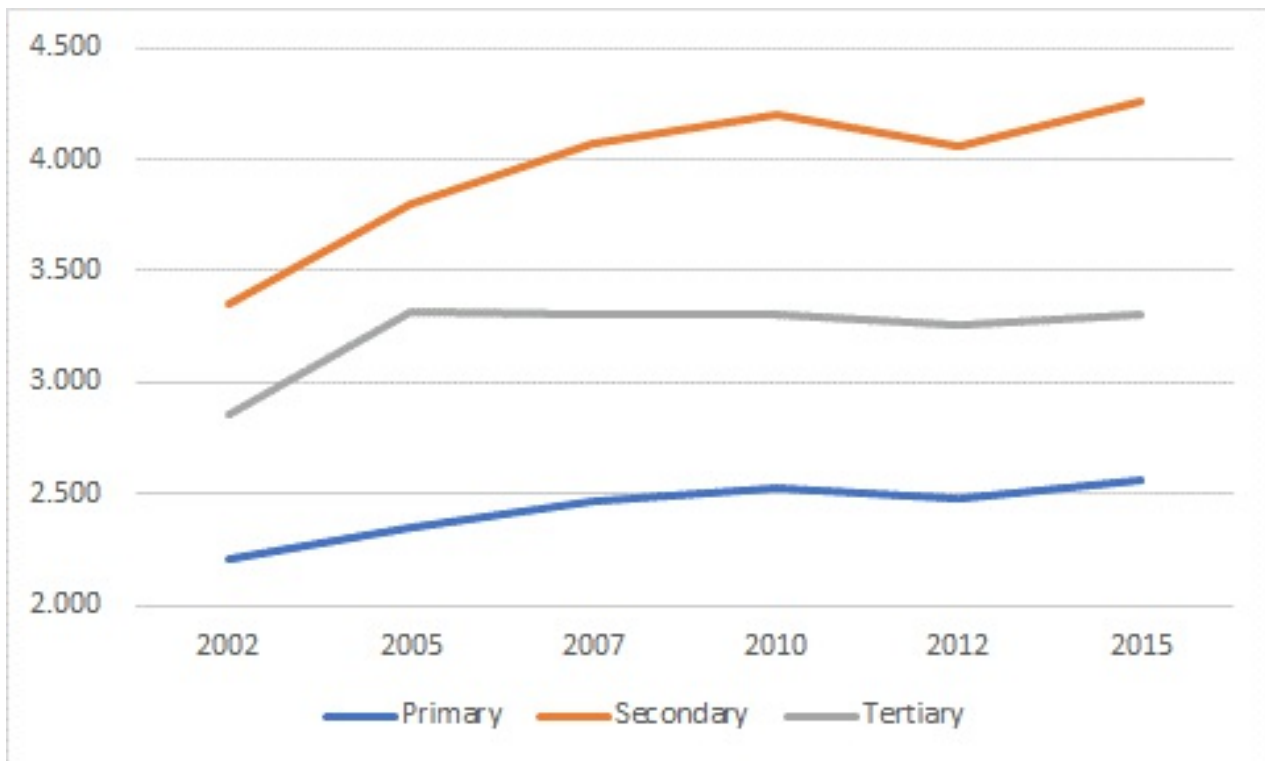


Figure 9

Output multiplier (backward linkage)

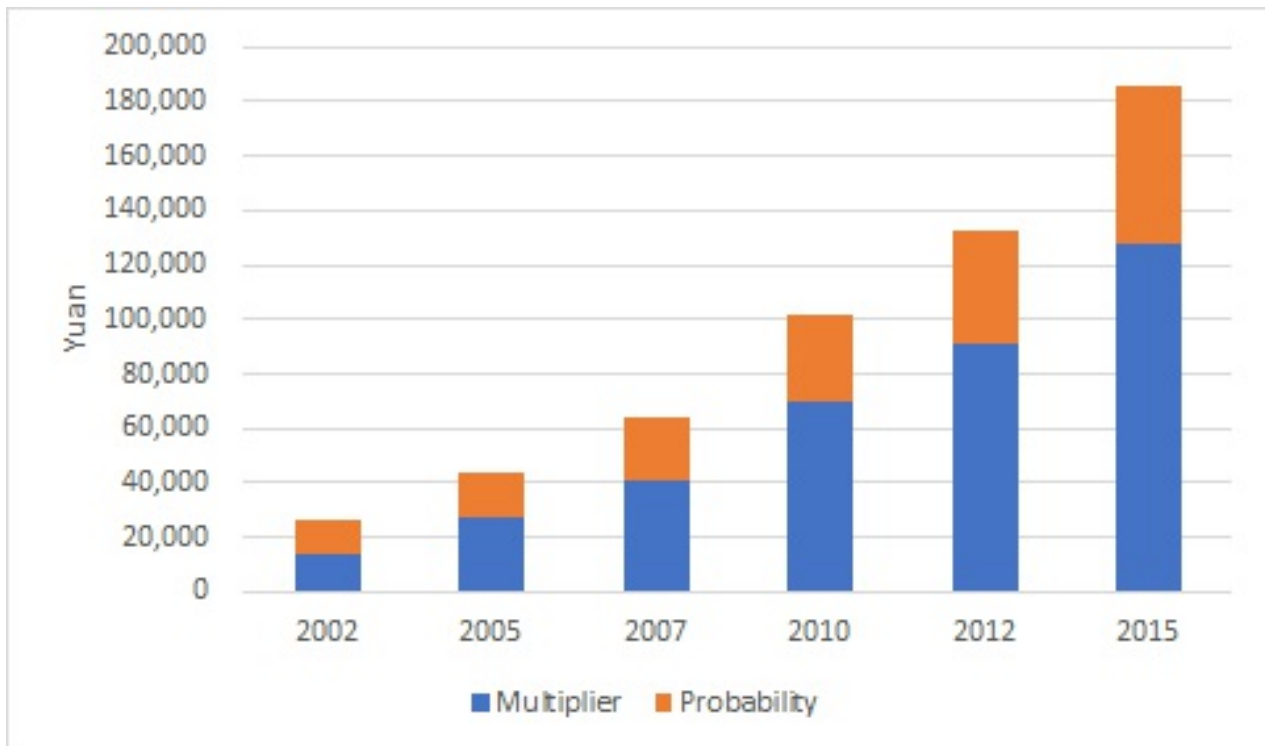


Figure 10

Output induced by consumption



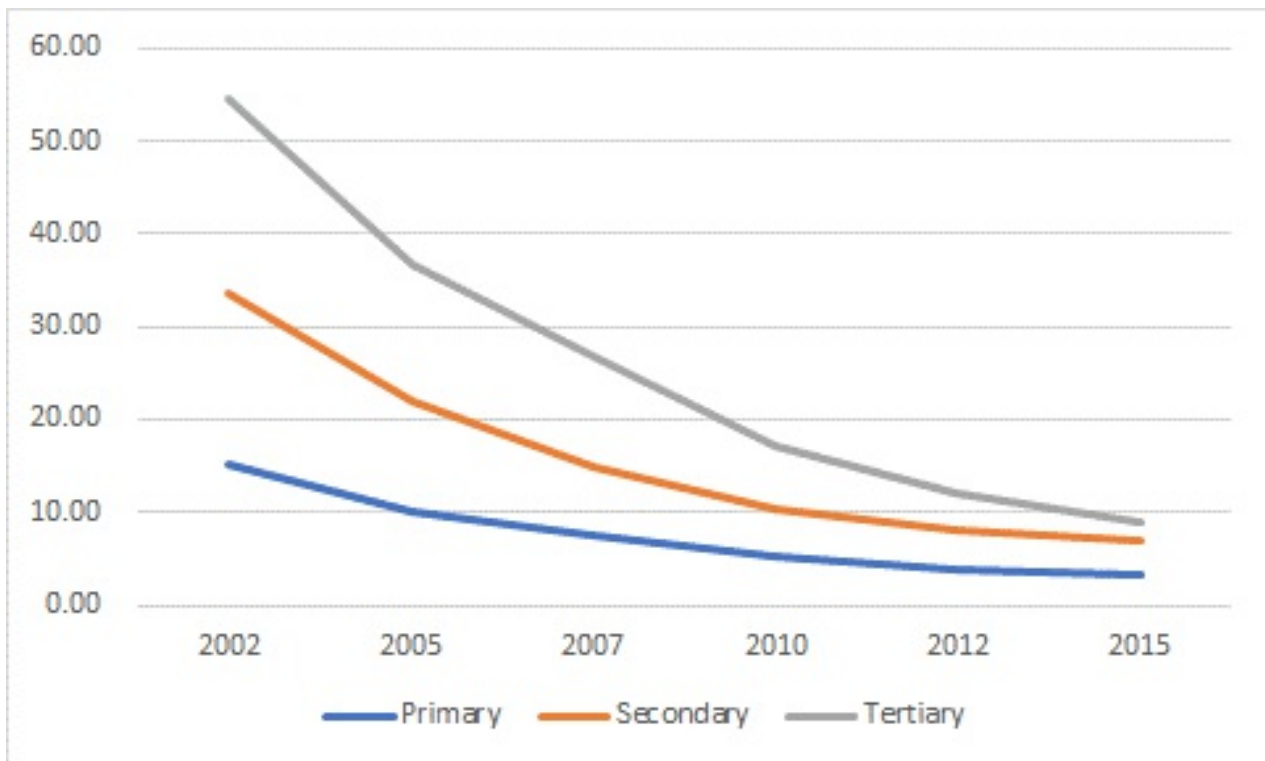


Figure 11

Induced urban employment

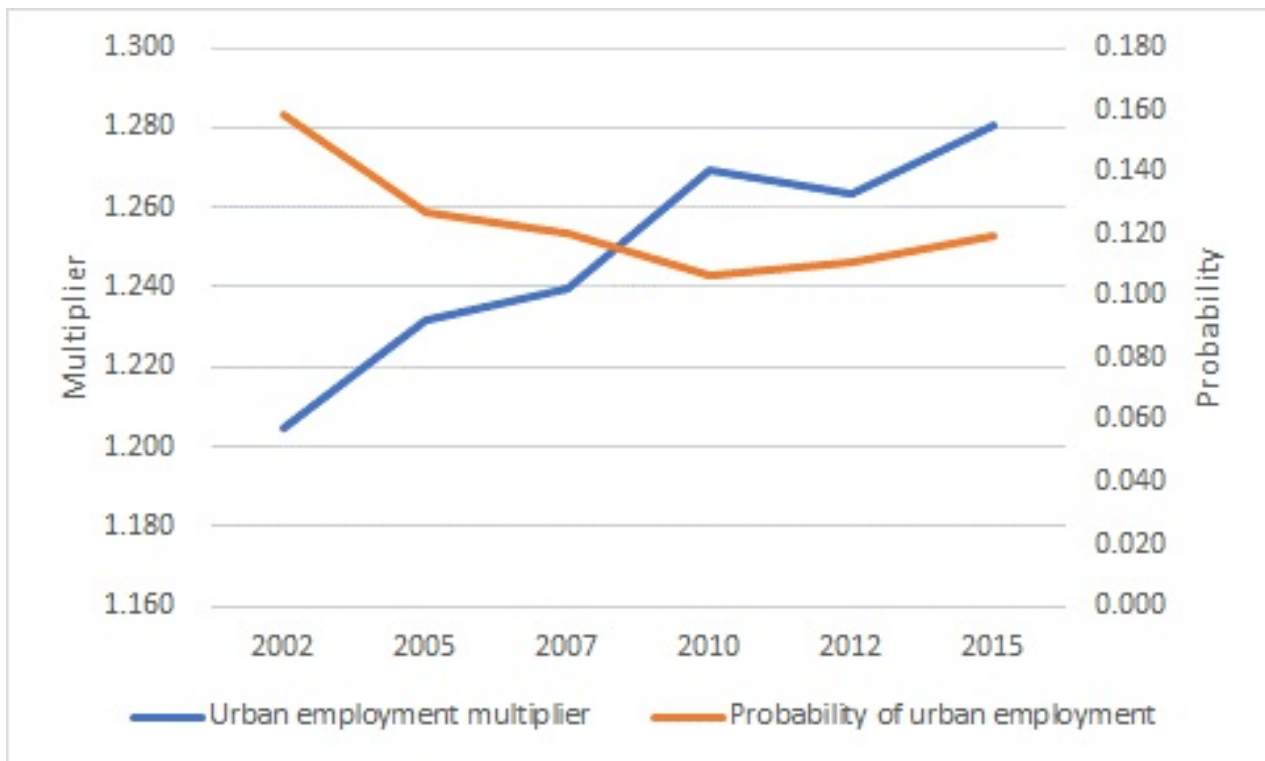


Figure 12

Urbanization multiplier (urban and rural labor allocation multiplier)

