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The Impact of Rural-Urban Migration on the Pension System in China

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The Impact of Rural-Urban Migration on the Pensions System in China

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Abstract
This research examines the influence of rural-urban migration on China’s pension insurance system. China's urban-rural structure is rapidly transforming. Consequently, the migration of populations from rural to urban areas has significantly impacted the social security system, especially the pension insurance system. This study analyzes data from 141,456 respondents using a binomial logistic regression model to explore the key factors influencing individual participation in pension insurance for the urban working group. The results indicate that education level, income, employment status, workplace, and residential area significantly affect pension insurance participation. Notably, an increase in education and income levels, as well as residing in economically developed areas, significantly enhances the likelihood of participating in pension insurance. These findings significantly deepen our understanding of how rural-urban migration affects the pension insurance system, providing a scientific basis for policy formulation.

Purpose Statement
This study aims to explore the impact of rural to urban migration in China on the determinants of choice between pension insurance for the urban working group and the new rural pension insurance for rural residents. It seeks to reveal how rural to urban migration in China affects individual participation in the pension insurance system, including gender, education level, employment status, income, workplace location, and residential area.

Empirical Model
\[
\log \left( \frac{P(\text{urban} = 1)}{1 - P(\text{urban} = 1)} \right) = \beta_0 + \beta_1 \text{female} + \beta_2 \text{education} + \beta_3 \text{employee} + \beta_4 \text{employer} + \beta_5 \text{selfemployed} + \beta_6 \text{income} + \beta_7 \text{city} + \beta_8 \text{suburb} + \beta_9 \text{west} + \beta_{10} \text{central} + \beta_{11} \text{east}
\]

Note: \( P(\text{urban} = 1) \) represents the probability of an individual participating in pension insurance for the urban working group. \( \beta_0 \) to \( \beta_{11} \) are parameters to be estimated.

Logistic Regression Analysis Results

<table>
<thead>
<tr>
<th>Dependent variables</th>
<th>Female</th>
<th>Education</th>
<th>Employee</th>
<th>Employer</th>
<th>Self-employed</th>
<th>Income</th>
<th>City</th>
<th>Suburb</th>
<th>West</th>
<th>Central</th>
<th>East</th>
<th>Constant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impact Type</td>
<td>Negative</td>
<td>Positive</td>
<td>Negative</td>
<td>Positive</td>
<td>Negative</td>
<td>Positive</td>
<td>Negative</td>
<td>Positive</td>
<td>Negative</td>
<td>Positive</td>
<td>Negative</td>
<td>Positive</td>
</tr>
<tr>
<td>Absolute Influence</td>
<td>-0.366***(0.017)</td>
<td>0.035***(0.017)</td>
<td>0.714***(0.009)</td>
<td>0.650***(0.011)</td>
<td>-0.876***(0.001)</td>
<td>1.243***(0.011)</td>
<td>-1.632***(0.013)</td>
<td>0.00003*(0.00005)</td>
<td>0.00003*(0.00005)</td>
<td>0.325***(0.023)</td>
<td>0.183***(0.043)</td>
<td>0.340***(0.038)</td>
</tr>
</tbody>
</table>

Observations: 141,456
Log Likelihood: -46,778.650

Key Influencing Factors for Pension Insurance Selection

Results
- Gender impact: Females show a significant preference for participating.
- Education: Higher levels of education substantially increase participation likelihood.
- Employment status: Employees and employers are more likely to participate compared to self-employed individuals.
- Income: Higher income levels positively influence participation.
- Place of employment: Suburban areas are associated with higher participation rates.
- Regional differences: Participation varies across regions, with the eastern region showing the strongest impact.

Conclusions
Based on the findings, it is imperative to focus on strategies aimed at enhancing participation in pension insurance for the urban working group. These strategies should include initiatives to improve education and income levels, enhance job opportunities and quality, and promote balanced regional economic development. Moreover, the development of inclusive and targeted pension insurance policies is crucial to address the ongoing rural-to-urban migration trend.

Acknowledgments
Gratitude is extended to survey participants, data providers, and Professor Wei-Chiao Huang for invaluable support and guidance.