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Gender differences in urbanization willingness: Evidence from Henan, China

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In this work, Henan is taken as a typical study area to assess the level of gender differences of urbanization willingness in China; Henan population structure is a small representation of the whole country. Using data of Henan migrant workers' citizenization research in 2017, the evaluation index system of Henan migrant workers' urban integration degree was established based on the Maslow's demand theory. The weight was computed by combining the weight from the analytic hierarchy process and factor analysis, respectively. The urbanization willingness of different genders was calculated by using the evaluation index system. The result shows that there is no difference between the two groups.

Key words: Urbanization willingness, gender differences, synthetic evaluation.

INTRODUCTION

The central part of China mainly includes six provinces: Henan, Anhui, Hubei, Hunan, Jiangxi and Shanxi, with a permanent population of 368 million people, accounting for about 30% of the country. In the past, agriculture was the main source of economic activity in the region, and the proportion of urbanization was relatively low. This resulted in a large number of migrant workers. Especially in Henan, the urbanization rate of Henan (50.2%) is lower than the national average of 8.4% points. The total number of migrant workers in Henan is 25.43 million, ranking first in the country; it accounts for 8.9% of the total number of migrant workers in the country (Population Development Report of Henan Province, 2017).

At present, "China's economy has changed from a stage of high-speed growth to a stage of high-quality development, and it is in the key period of transforming the mode of development, optimizing the economic structure and transforming the driving force of growth". In promoting high-quality development, Huang (2018) (Institute of Macroeconomics, National Development and Reform Commission, 2018) said that urbanization is the only way to achieve high-quality development, and the urbanization of migrant workers is the primary manifestation of urbanization. The driving force for Henan's high-quality economic development lies in vigorously promoting urbanization. According to National Bureau of Statistics (2018), the number of migrant workers in China accounted for 35.2% of the permanent population in cities and towns. Migrant workers have become an important force to promote China's economic prosperity and reduce rural poverty, increase farmers' income, promote urban consumption, and increase labor

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participation. On the one hand, migrant workers' employment in cities has raised their income level and improved their living conditions. While meeting their own needs, they have provided sufficient labor and consumers for urban development and promoted the coordinated development of urban and rural areas. In addition, migrant workers have enjoyed high-quality resources such as social rights, social security, employment opportunities and educational chances after their integration into cities. Therefore, this paper studies the measurement of the urbanization willingness of Henan population, and analyses the gender differences of urbanization willingness. It contributes to provide a basis for policy establishment, help promote the high-quality integration of Henan migrant workers into the city. It may have a decisive impact on the high-quality development of Henan and even the national economy.

Urbanization is a process of transition from a rural to a more urban society (Preedy, 2010). Statistically, urbanization reflects an increasing proportion of the population living in settlements defined as urban, primarily through net rural to urban migration. It is affected by many factors, such as individual characteristics, family factors, social system factors, psychological factors, urban community environment and so on. The external manifestation is different. Park et al. (1968) considers that the social integration of immigrants is a process of mutual penetration and integration of individuals or groups through economic competition, political conflict, social regulation and cultural integration. Lawrence and Berry (1998) believe that social identity covers multiple relationships such as family ties, personal social circles, membership of peer groups, class loyalty and social status. Sun (2015) contends that the value orientation of human urbanization embodies inclusiveness, equality of rights and sharing of results. Its external pursuit is a high sense of fairness in identity, rights and treatment of agricultural transfer population, and its internal requirement is the social identity of agricultural transfer population.

The measurement of urbanization intention is to measure the urbanization psychology of the migrated population. The index system of measurement can be established from the subjective level of the migrated population, such as Diener and Suh (1997) four-dimensional structure model of subjective well-being; it can also be established from different integration levels of the agricultural transferred population, such as Shi (2015) from three dimensions of economic integration, social integration and psychological integration. It can also take into account individual and social diversity. For example, Zhang (2015) examined the urbanization willingness of the agricultural transition population from four dimensions: society, economy, culture and psychology. Gordon (1964) proposed a seven-dimensional measurement system from culture, structure, marriage, identity, concept acceptance, behavior acceptance and public affairs

integration.

Measuring tools are mostly based on psychological and statistical models, such as analytic hierarchy process, factor analysis, structural equation model, etc. Lu Haiyang (2016) used factor analysis to measure the urban integration degree of migrant workers, Zhang (2015) used the methods of fuzzy set theory and factor analysis to measure the urban integration degree of migrant workers. Chuanjiang and Cheng (2008) constructed a hierarchical model to measure the level of urbanization.

Mounding the evaluation system

Based on Maslow's demand theory and the logical framework of "integration status - influencing factors - integration consequences", this paper constructs the index system of urban integration of migrant workers. Maslow's theory divides needs into five categories: physiological needs, security needs, love and belonging, respect and self-realization, which are progressing from low to high. The main contradiction in our country has turned into the contradiction between the people's growing need for a better life and the unbalanced and insufficient development. Building on the Maslow's demand theory, various indicators were selected in this paper.

According to Maslow's theory, in addition to the first level of physiological needs, stable work and income and stable residence belong to the second level of security needs in the process of peasant workers' urban integration; understanding local life customs and language habits, having a sense of belonging to the city and psychological adaptation belong to the third level of emotional belonging needs; peasant workers enjoy employment, medical care, education, social security, social security, and so on. The urban social rights and interests in elections reflect part of the needs of respect and self-realization mainly embodies the fourth and fifth levels of needs. Therefore, according to the above theory, the first-level indicators are established from three aspects: security needs, emotional attribution and identity integration. We construct a second-level indicators system. The value of secondary indicators is adjusted to positive indicators, and the final evaluation index system of urban integration of migrant workers is in Table 1.

Model solution

The data were obtained from the Henan migrant workers' citizenization survey in 2017, which were implemented by Henan Province Bureau of Statistics. The survey is based on the annual 1% population sampling survey of the National Bureau of Statistics. The sample is selected by the household office of the National Bureau of Statistics

Table 1. Evaluation Index System of Urban Integration of Migrant Workers.

Level I indicators	Level II indicators	Variable attributes	Implication
Safety requirement	Contract signing	Categorical variable	Signing more than one year contract is 3, less than one year is 2, probation period is not signed contract is 1, no contract is 0.
	Residence stability	Categorical variable	Self-purchasing is 3, rental housing is 2, and dormitory is 1.
	Are wages in arrears?	Categorical variable	Is it 0, not is it 1
	Whether to pay housing provident fund	Categorical variable	Is it 1,not is it 0
Emotional attribution	Spare time life satisfaction degree	Categorical variable	Very satisfactory 4, relatively satisfactory 3, generally 2, not very satisfactory 1, very unsatisfactory 0
	Life Satisfaction	Categorical variable	Very satisfactory 4, relatively satisfactory 3, generally 2, not very satisfactory 1, very unsatisfactory 0
	Living fitness	Categorical variable	Very suitable for 4, relatively suitable for 3, generally 2, not very suitable for 1, very not suitable for 0
	Do you think you are a native	Categorical variable	Is it 1, not is it 0
	Family members moved	Continuous variable	Number or family members
Identity integration	Household registration restrictions	Categorical variable	Is it 1,not is it 0
	Enjoy employee health insurance	Categorical variable	Is it 1, not is it 0
	Enjoy employee pension insurance	Categorical variable	Is it 1, not is it 0
	Participation in the elections	Categorical variable	Participation is 3 for each time, sometimes 2 for each time, and 1 for family members. No participation or no application is 0.
	Participation in community organizations activity situation	Categorical variable	Frequent participation was 2, occasional participation was 1, and no participation was 0.

according to the multi-stage and PPS sampling method. The sample is highly representative. The respondents are all family members of migrant workers, including not only migrant workers, but also family members living in the same house, temporary migrants and elderly people living in rotation, family members, and school students and so on. There are inevitably some incomplete data and wrong records in the huge amount of data. According to the relevant information and research purposes, the data were cleaned and sorted out, and the data that did not belong to the scope of this study were excluded.

Finally, 1280 valid samples were obtained.

Cranach's alpha coefficient was used to test the reliability of the sample data. The reliability coefficients of the sample data of male and female agricultural transfer population were 0.882 and 0.893 respectively, which met the requirements of data quality. In order to meet the need of factor analysis modeling, KMO test was carried out on the samples. The results showed that the KMO test values of male and female agricultural migrants were 0.847 and 0.851, respectively. Bartlett spherical test showed that the probability of significance of chi-

Table 2. The key descriptive statistics of variables (N=1280).

Variable names	Mean	Standard deviation	Male (N=760)		Female(N=520)	
			Mean	Standard deviation	Mean	Standard deviation
Contract signing	2.13	0.602	2.19	0.613	2.04	0.611
Residence stability	1.41	0.577	1.34	0.485	1.51	0.589
Are wages in arrears?	0.86	0.216	0.87	0.183	0.84	0.196
Whether to pay housing provident fund	0.63	0.223	0.65	0.217	0.60	0.232
Spare time life satisfaction degree	3.23	0.786	3.26	0.811	3.17	0.697
Life satisfaction	3.54	0.821	3.61	0.805	3.44	0.814
Living fitness	3.87	0.798	3.89	0.793	3.84	0.788
Do you think you are a native	0.69	0.239	0.61	0.303	0.81	0.271
Family members moved	1.34	0.453	1.36	0.414	1.31	0.465
Household registration restrictions	0.73	0.264	0.71	0.254	0.75	0.199
Enjoy employee health insurance	0.77	0.234	0.78	0.223	0.76	0.213
Enjoy employee pension insurance	0.59	0.241	0.61	0.243	0.56	0.237
Participation in the elections	2.49	0.742	2.5	0.686	2.48	0.741
Participation in community organizations activity situation	1.94	0.655	1.91	0.671	1.98	0.582

square values was lower than that of significance. The data meet the requirements of factor analysis model.

The descriptive statistics of each variable and gender-specific descriptive statistics are summarized in Table 2. It can be seen that the values of variables of different genders are not completely equal. In order to further compare the degree of gender differences in urbanization of migrant workers, the index system of urban integration of migrant workers is empowered by comprehensive use of analytic hierarchy process and factor analysis. The results of the above two weighting methods are averaged and the combined weights are obtained as the final weights of each index (Table 3).

In factor analysis, the maximum variance method is used to rotate the factor and extract the main factor with characteristic value of 1. The results show that the load of index factor is greater than 0.50, the significant P value is less than 0.01, and the cumulative explanatory variance is more than 70%. Therefore, factor analysis is suitable for empowerment. In the analytic hierarchy process, the consistency test index CI of the four pairwise comparison matrices is less than 0.1, and the combination consistency test index CI = 0.087 < 0.1. The weight calculated by the analytic hierarchy process is tested and can be used for comprehensive evaluation. Because the range of each measurement index is different, there will be a big deviation in the comprehensive evaluation. In order to overcome the influence of this deviation, each index is standardized using Min-max normalization, which is calculated by the following formula (indexation):

$$y_i^* = 100 \times \frac{y_i}{y_{max}}$$

Among them, the original value of each index in the evaluation system is the maximum value (theoretical maximum value or actual maximum value). The urban integration degree of migrant workers in Henan Province in 2017 is calculated, including the overall integration degree and security needs, emotional fate, identity integration and other secondary indicators, the scores of different genders. The results are summarized in Table 4.

Gender heterogeneity analysis

Table 4 shows that there are significant gender differences in the urban integration of migrant workers, which may be due to the intra-group differences formed by different individual characteristics, or the inter-group differences caused by different gender. To identify the sources of these differences, an Oaxaca-Blinder

Table 3. Index weights.

Level I indicators	Level II indicators	Determining weights method		Combination weighting (standardized)
		ω_1 Factor analysis method	ω_2 Analytic Hierarchy Process	
Safety requiremen t 0.40	Contract signing	0.279	0.313	0.30
	Residence stability	0.253	0.208	0.23
	Are wages in arrears?	0.15	0.25	0.20
	Whether to pay housing provident fund	0.317	0.229	0.27
Emotional attribution 0.33	Spare timelife satisfaction degree	0.209	0.183	0.20
	Life satisfaction	0.227	0.2	0.22
	Living fitness	0.191	0.217	0.20
	Do you think you are a native	0.197	0.167	0.18
	Family members moved	0.176	0.234	0.20
Identity integration 0.27	Household registration restrictions	0.058	0.167	0.12
	Enjoy employee health insurance	0.292	0.217	0.24
	Enjoy employee Pension Insurance	0.292	0.234	0.27
	Participation in the elections	0.185	0.2	0.20
	Participation in community organizations activity situation	0.172	0.183	0.17

Table 4. Measurement of urban integration of migrant workers in Henan province.

	All samples	Male samples	Female samples
Overall score	72.30	71.94	72.50
Safety requirement	26.53	25.99	26.85
Emotional attribution	25.19	25.50	24.97
Identity integration	20.59	20.45	20.68

decomposition model was established. Table 4 shows that there are significant gender differences in the urban integration of migrant workers, which may be due to the intra-group differences formed by different individual characteristics, or the inter-group differences caused by different gender. To identify the sources of these differences, an Oaxaca-Blinder decomposition model (Jann, 2008) was established (Table 5).

$$city_f - city_m = \left(\overline{x_f} - \overline{x_m}\right)\beta_m + \left(\beta_f - \beta_m\right)\overline{x_m}$$

Among them, the urban integration degree of female migrant workers and male migrant workers respectively; the mean values of explanatory variables in the regression equation expressing the urban integration degree of female migrant workers and male migrant workers; and the regression coefficient expressing the difference equation of urban integration degree of migrant

workers of different genders. The first item on the right side of the above formula is the explanatory part of the characteristic difference of the explanatory variable, that is, the influence of the characteristic difference between different gender migrant workers on the urban integration degree, and the second one is the coefficient difference (the unexplainable part). This indicates the difference of the urban integration degree between the two groups of migrant workers caused by the coefficient difference under the same individual characteristics of different gender migrant workers.

Conclusions

This work analyzes the evaluation system of urbanization, constructs a feasible evaluation scheme, and studies the degree of urbanization and the degree of urbanization of different genders. It is found that the degree of

Table 5. The Oaxaca-Blinder decomposition.

Explanatory variable	Endowment difference value	Endowment difference rate (%)	Coefficient difference value	Coefficient difference rate (%)
Age (logarithmic)	0.2369	105.7463	1.1558	515.9781
Marriage	0.0403	17.9756	0.0564	25.1664
Working years in cities	0.0303	13.5135	-0.0301	-13.4376
Educational level	-0.0831	-37.1032	-0.033	-14.7401
Occupation	0.0154	6.894	-0.2496	-111.4338
Income (logarithmic)	-0.0145	-6.4746	-0.0092	-4.0972
Living style	0.0366	16.336	0.0617	27.524
Types of employment	-0.0344	-15.337	-0.1059	-47.2954
Government support	-0.0143	-6.3617	0.0219	9.7795
Homestead	0.0004	0.1583	0.0174	7.7574
Contracted land	-0.0001	-0.0488	0.0326	14.5389
Household registration	0.0058	2.6049	0.115	51.3239
Constant term	--	--	-1.0043	-448.329
Total score	0.2169	96.8255	0.007	3.1745

urbanization of different genders is different, and the difference is decomposed and studied, and some valuable conclusions are drawn. There is room for improvement. If the scope of the survey is increased, the use of national data will help to increase the universality and persuasiveness of the conclusion. From Table 4, we can see that the urban integration of migrant workers in Henan needs to be improved. The urban integration degree of migrant workers in Henan is 72.30, and the level of citizenization of migrant workers is low. From different degrees of integration, 14.0% of migrant workers have more than 80 degrees of urban integration, 39.6% of migrant workers have 60-80° of integration, and 46.4% of migrant workers have less than 60 degrees of integration. Therefore, it is suggested that the government create a better integration environment and atmosphere to accept migrant workers into the city.

Peasant workers have obvious differences in different dimensions. Security needs score was the highest, followed by emotional attribution, and identity was the lowest. In terms of distribution, 63.4% of the security needs are above 80, and only 6.6% of the groups with below 60 degree of integration, while 27.8 and 29.9% of the groups with below 40 degree of integration are emotional attribution and identity integration, respectively. China's urban management and the management of migrant workers have been recognized by migrant workers, but there is still room for improvement in emotional and identity aspects, especially the household registration system is still a barrier for migrant workers to integrate into the city.

There are differences in urban integration of migrant

workers of different genders. The urban integration degree of female migrant workers is slightly higher than that of male migrant workers. Female migrant workers have higher security needs and identity integration than male migrant workers, indicating that female migrant workers have more stable security in housing, provident fund, community activities, etc. Female migrant workers are lower than male migrant workers in emotional attribution, which shows that male migrant workers are more able to adapt to the urban living environment and obtain life satisfaction.

Table 5 shows that 96.8% of the differences in urban integration between migrant workers of different genders can be explained by the differences in individual characteristics of migrant workers, and only 3.2% cannot be explained. Therefore, the difference of urban integration degree between migrant workers of different genders is mainly caused by the difference of individual characteristics between the two groups, not by the difference between groups. From the point of view of sub-items, education level is the most important factor to widen the difference of urban integration between migrant workers of different genders, and the difference of endowment is - 37.1%. Therefore, strengthening the education and training of migrant workers and improving their own quality are important channels to narrow the gap of urban integration between migrant workers of different genders. Employment type, income and government support are also influencing factors that widen the gender gap of urban migrant workers. On the contrary, marriage, working years in cities, and living style can help narrow the gap of urban integration of

migrant workers of different genders to a certain extent.

CONFLICT OF INTERESTS

The authors have not declared any conflict of interests.

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