

The Construction, Calculation, and Analysis of the Costs of New Generation Migrant Workers' Citizenization in Chongqing of China

ZHANG Mingxia^[a]; ZHAO Bo^{[b],*}

^[a]School of Economics and Management, Southwest University, Chongqing, China.

^[b]Associate Professor, Research Center of Agricultural Education Development, Chongqing, China. School of Economics and Management, Southwest University, Chongqing, China. Main research direction is national economics.

*Corresponding author.

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Abstract

Citizenization of migrant workers is a major strategic choice to balance urban and rural development, eliminate dual economic structure contradiction, and solve the issues of "agriculture, rural areas and farmers". However, due to various reasons, it is extremely difficult for migrant workers to convert to real citizens currently. This paper, taking Chongqing as an example, clarifies the cost construction in the process of new generation migrant workers' citizenization through empirical data, then calculates and analyzes the cost construction, so as to provide the basic safeguard and dynamic support for the migrant workers' citizenization.

Key words: New generation; Migrant workers; Citizenization; Construction and calculation of cost

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INTRODUCTION

Migrant worker is a unique social group, which has the nature of labor and peasant under the history of China's

industrialization, urbanization and the dual economic structure of urban and rural areas. Citizenization of migrant workers is a major strategic choice to balance urban and rural development, eliminate dual economic structure contradiction, and solve the issues of "agriculture, rural areas and farmers".

Citizenization of most migrant workers is the ultimate way to solve the problem of migrant workers. But in general, due to various reasons, migrant workers not only did not convert to real citizens, instead they became the "marginal groups" free between urban and rural areas (Wang, 2006). Thus, it is extremely difficult for migrant workers to convert to real citizens currently. The transformation cost is the main obstacle to the citizenization of migrant workers.

This paper is based on data obtained from a large number of questionnaires and case interviews, and is also combined with statistics published by national ministries and Chongqing Statistical Yearbooks. This paper analyzes the status of migrant workers' citizenization, clarifies the cost structure in the process of new generation migrant workers' citizenization, and determines cost value of migrant workers' citizenization by empirical analysis of the typical sample in different stages of migrant workers' citizenization, so as to provide the basic safeguard and dynamic support for the migrant workers' citizenization, and promote the process of urbanization.

1. CONSTRUCTION AND CALCULATION OF THE COSTS OF NEW GENERATION MIGRANT WORKERS' CITIZENIZATION IN CHONGQING

Considering the pertinence of cost calculation and the availability of data, this paper takes the new generation migrant workers as an object of study on the construction and calculation of citizenization cost, and focus on the analysis of Chongqing.

In this paper, the cost of new generation migrant workers' citizenization is divided into individual costs and social costs. Individual cost is the expense, which individuals and family must bear to realize citizenization, mainly including costs of living, housing costs, social security costs and opportunity costs of giving up the identity of farmers. Social costs are the input of providing infrastructure, public services and welfare guarantee by governments and enterprises, mainly including costs of infrastructure construction, costs of basic medical and health, and costs of public administration, etc. (Zhang, 2010)

1.1 Costs of Living (C₁)

Costs of living are the normal expenditure arising from

$$c_1 = \frac{1}{5} \sum_{2010}^{2014} (c_{urban \cdot n} - c_{rural \cdot n}) = 10810 \text{ yuan} \quad (n = 2010, 2011, 2012, 2013, 2014)$$

new generation migrant workers' work and life in urban which deducts the normal living costs of migrant workers in rural areas. Given the availability of data and simplicity of calculation, the urban living costs of new generation migrant workers are replaced by the living costs of urban residents, the rural living costs of new generation migrant workers are replaced by the living costs of rural residents, and the living costs of new generation migrant workers' citizenization is reckoned by the gap of living costs between urban and rural residents (the living costs of urban residents do not include housing costs), expressed with letters as $C_1 = C_{urban} - C_{rural}$. (C_1 represents Costs of living. C_{urban} represents the living costs of urban residents. C_{rural} represents the living costs of rural residents.) See Table 1 for details.

Table 1
Per Capita Living Costs of Urban and Rural Residents in Chongqing from 2010 to 2014 Unit: Yuan

Year	Per capita living costs of urban residents	Per capita living costs of rural residents	The gap of per capita living costs between urban and rural residents
2010	13335	3625	9710
2011	14974	4502	10472
2012	16573	5019	11554
2013	17814	5796	12018
2014	18279	7983	10296
The gap of per capita living costs between urban and rural residents from 2010 to 2014			10810

Note. Adapted from Chongqing statistical information network (Statistical bulletin of national economic and social development in Chongqing from 2010 to 2014).

With the widening gap of economic development between the urban and rural areas, the price level in urban is far higher than the rural areas, especially in first-tier cities such as Beijing, Shanghai, and Guangzhou. The living costs occupy the largest proportion in the consumption structure of new generation migrant workers. However, new generation migrant workers are generally engaged in labor-intensive industries with poor working conditions and low wages. Thus the high living costs become the main burdens in the process of citizenization.

1.2 Housing Costs

Housing problem is the top issue faced by new generation

migrant workers in urban. Housing costs include permanent and temporary housing costs, and the former refer to the costs of the purchase of housing, the latter refer to the rents. Whether the new generation migrant workers have housings in urban is the key to really integrate into the city, the housing costs this paper refers to is the per capita housing costs of new generation of migrant workers rather than the rental costs (Development Research Center of the State Council Research Group, 2010). Housing costs of new generation migrant workers is reckoned by per capita housing construction area times housing price per unit area from 2012 to 2013. See Table 2 for details.

Table 2
Per Capita Housing Costs in Chongqing from 2012 to 2013

Year	Per capita housing construction area (m ²)	Housing price per unit area (Yuan per m ²)	Per capita housing costs (Yuan)
2012	32.17	1083	34840
2013	33.59	1607	53979
Per capita housing costs of urban residents in Chongqing from 2012 to 2013			44409

Note. Adapted from Chongqing Statistics Bureau and Chongqing statistical information network.

$$c_2 = \frac{1}{2} \sum_{2012}^{2013} (M_n \cdot P_n) = 44409 \text{ yuan} \quad (n = 2012, 2013)$$

(M_n , P_n represent the per capita housing construction area and housing price of per unit area). The proportion of

housing costs is also increasing in the individual costs of new generation migrant workers' citizenization.

1.3 Opportunity Costs

Opportunity costs are the costs of giving up the rural

residence land, the land management rights, and the benefits of agricultural production and industry production after the new generation migrant workers' citizenization. This part of interest and income is the biggest opportunity cost of new generation migrant workers (Chen & Zhang, 2011). See Table 3 for details.

Table 3
Per Capita Annual Net Income of Rural Residents in Chongqing from 2010 to 2014 Unit: Yuan

Year	2010	2011	2012	2013	2014
Per capita annual net income	5277	6480	7383	8332	9490
Per capita annual net income of rural residents in Chongqing from 2010 to 2014					7392

Note. Adapted from Chongqing statistical information network (Statistical bulletin of national economic and social development in Chongqing from 2010 to 2014).

$$c_3 = \frac{1}{5} \sum_{2010}^{2014} R_n = 7392 \text{ yuan} \quad (n = 2010, 2011, 2012, 2013, 2014)$$

(R_n represents the per capita annual net income of rural residents in Chongqing) From the data above, we can see that the opportunity cost of new generation migrant workers' citizenization in Chongqing is 7392 yuan.

Table 4
Infrastructure Investment in Chongqing from 2010 to 2014 Unit: 100 million

Year	2010	2011	2012	2013	2014
Infrastructure Investment (100 million)	1911.45	1926.30	2404.16	2962.10	3386.23
Urban household population (Ten thousand)	1107	1605.96	1678.11	1732.70	1786.70
per capita infrastructure investment	17266.94	11994.69	14326.59	17095.28	18952.43
per capita infrastructure investment (Yuan)					15927.19

Note. Adapted from Chongqing statistical information network (Statistical bulletin of national economic and social development in Chongqing from 2010 to 2014).

$$c_4 = \frac{1}{5} \sum_{2010}^{2014} I_n = 15927.19 \text{ yuan} \quad (n = 2010, 2011, 2012, 2013, 2014)$$

(I_n represents the infrastructure investment) From the data above, we can see that the per capita infrastructure construction cost of new generation migrant workers' citizenization in Chongqing is 15927.19 yuan.

1.5 Education and Training Costs (C_5)

Education and training costs of citizenization include the training costs of new generation migrant workers and compulsory education costs of their children. In the training costs of new generation migrant workers, the government is mainly responsible for carrying out career introduction and vocational training for new generation migrant workers to improve their quality and technical level. The compulsory education of the new generation migrant workers' children is the main problem which hinders the citizenization. The compulsory education costs of new generation migrant workers' children are the fees of receiving compulsory education in city. (Hu, 2012)

According to the statistical yearbook of Chongqing in 2014, we can calculate that the per capita education and

1.4 Costs of Urban Infrastructure Construction (C_4)

Although the urban infrastructure is not exclusive, the accelerated process of citizenization and the increasing population will make the acceptance ability of the city eventually saturated, which will make the urban infrastructure insufficient. In order to ensure that the new generation migrant workers enjoy the same treatments as the citizens after citizenization, it is necessary to increase the urban infrastructure. And this part of the increased capital investment is namely costs of urban infrastructure construction. Urban infrastructure mainly consists of social and engineering infrastructures. Social infrastructure refers to the social services to ensure the medical and health care, education, entertainment, and sports which citizens need for their normal work and life. Engineering infrastructure refers to the infrastructure construction in energy, transportation, communications, water supply and drainage, environmental cleaning and etc. (Deng & Lu, 2012) In this paper, per capita infrastructure construction costs of new generation migrant workers are reckoned by per capita urban infrastructure construction investment from 2010 to 2014. See Table 4 for details.

training costs in Chongqing are 1414 yuan through the data of education investment expenditure and the total resident population. It is assumed that there is only one of the new generations of migrant workers in Chongqing city. Assumed that each migrant worker has only one migrant child, we can reckon that the education and training costs of citizenization in Chongqing are 2828 yuan. ($C_5 = 2C_e = 2 \times 1414 = 2828$, C_e represents the education and training costs.) See Table 5 for details.

Table 5
Per Capita Education and Training Costs in Chongqing

Year	Education investment expenditure (billion)	Total resident population (ten thousand)	Per capita education and training costs (yuan)
2012	399.33	2945	1356
2013	437.28	2970	1472
per capita education and training costs from 2012 to 2013 (yuan)			1414

Note. Adapted from the statistical yearbook of Chongqing in 2014.

1.6 Social Security Costs (C₆)

Social security costs refer to the fees to make life difficult citizens enjoy social security and maintain normal life. In China, the social security costs are shared by individuals, enterprises and our country. Social insurance is the core of social security. In the process of citizenization of new generation migrant workers, due to the limited capacity of individuals and enterprises, the government needs to invest a lot of money in the endowment insurance, unemployment insurance,

medical insurance, industrial injury insurance, maternity insurance and so on. Based on final number of insured in endowment insurance, unemployment insurance, medical insurance, industrial injury insurance, maternity insurance and corresponding social security fund income in Chongqing from 2011 to 2012, we can calculate the average social security costs of urban workers. And the public social security costs are the average social security costs deduct the individual social security costs. See Table 6 for details.

Table 6
The Average Social Security Costs of Urban Workers in Chongqing from 2011 to 2012

Year	Social insurance situation	Endowment insurance	Basic medical insurance	Unemployment insurance	Industrial injury insurance	Maternity insurance	Total social security costs
2011	The number of insured (ten thousand)	633.22	458.48	268.61	337.09	216.64	-
	Fund income (billion)	411.03	103.94	12.01	13.06	2.87	-
	The average social security costs (yuan)	6491.11	2267.06	447.12	387.43	132.48	9725.20
2012	The number of insured (ten thousand)	703.57	496.48	323.53	374.89	253.53	-
	Fund income (billion)	531.13	135.18	19.61	14.64	5.3	-
	The average social security costs (yuan)	7549.07	2722.77	606.13	390.51	209.05	11477.53
the average social security costs of urban workers from 2011 to 2012 (yuan)							10601.37

Note. Adapted from the statistical yearbook and survey yearbook of Chongqing from 2008 to 2014.

$$c_6 = \frac{1}{2}(c_{2011} + c_{2012}) = 10601.37 \text{ yuan}$$

C₂₀₁₁ represents the average social security costs of urban workers in 2011; C₂₀₁₂ represents the average social security costs of urban workers in 2012. In addition, various social assistance spending aimed at citizenization of new generation migrant workers also occupies a large proportion in the government's fiscal spending.

2. ANALYSIS AND EVALUATION OF THE COSTS OF NEW GENERATION MIGRANT WORKERS' CITIZENIZATION IN CHONGQING

Based on the reality of new generation migrant workers' citizenization in Chongqing, and through quantitative and qualitative analysis, we conclude that the total cost of the new generation migrant workers' citizenization in Chongqing is 91975 yuan. That is to say, the cost that each new

generation migrant worker needs to pay for citizenization in Chongqing is 91975 yuan. See Table 7 for details.

Judging from the specific composition of the cost of citizenization, housing costs, costs of infrastructure construction, social security costs are the main expenditure items of the costs of new generation migrant workers' citizenization, which respectively account for 48.3%, 17.3%, 11.5%. The housing problem is the most important factor to hinder the citizenization of new generation migrant workers, and is the important and difficult problem to be solved in the process of citizenization. In addition, the costs of living account for 11.8%, the opportunity costs, education and training costs respectively account for 8% and 3.1% of the total costs. On the one hand, this shows that living costs are still relatively high in the individual costs of new generation migrant workers' citizenization. On the other hand, this shows that the education and training investment of new generation migrant workers and their children is insufficient.

Table 7
The Total Cost of the New Generation Migrant Workers' Citizenization in Chongqing

Costs of living (C ₁)	Housing costs (C ₂)	Opportunity costs (C ₃)	Costs of infrastructure construction (C ₄)	Education and training costs (C ₅)	Social security costs (C ₆)	Total cost (C)
10810	44409	7392	15935	2828	10601	91975

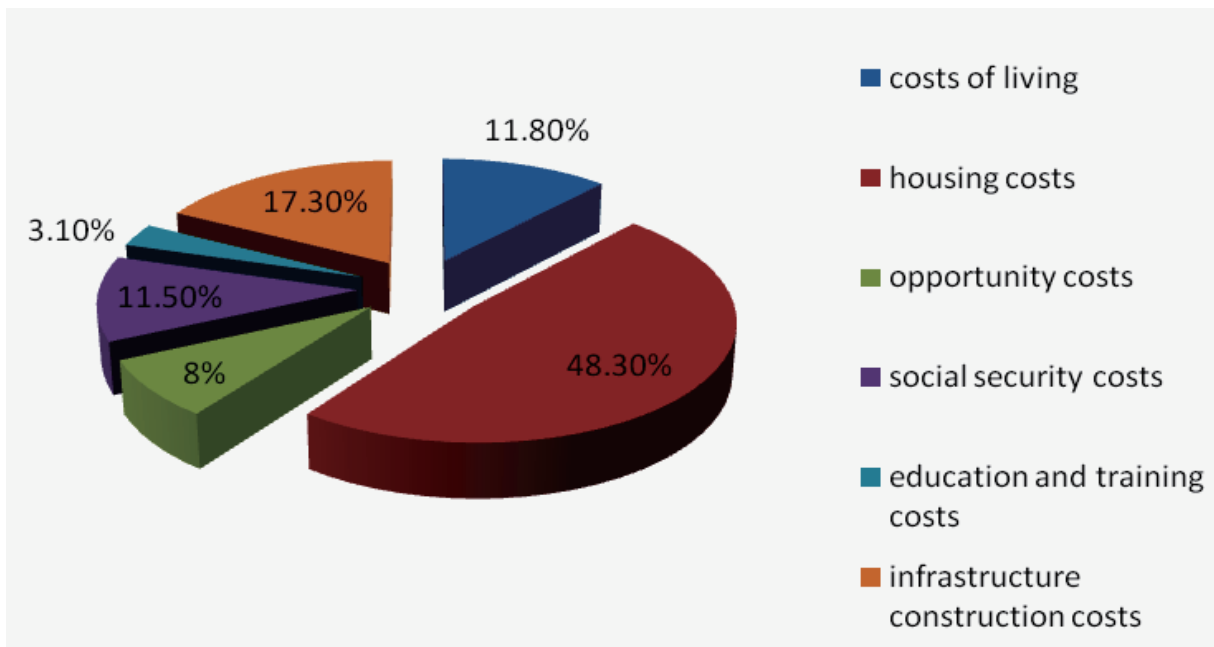


Figure 1
Construction of the Costs of New Generation Migrant Workers' Citizenization in Chongqing of China

Although different scholars and different provinces have different calculation results on the costs of new generation migrant workers' citizenization, the results are mostly calculated from the costs of living, housing costs, education and training costs, infrastructure construction costs, social security costs, etc. In addition, we calculate the opportunity costs according to the actual economic development of urban and rural areas in Chongqing. In the specific process of cost calculation, we collect the latest statistics and government statistical bulletins to ensure the timeliness and accuracy of data. Taking the calculation of infrastructure construction costs as an example, most domestic scholars use fixed asset investments deducting the housing investments to calculate the infrastructure construction costs. But in this paper, we obtain the data directly according to the government statistical bulletins in Chongqing. Thus our calculation results are more accurate.

CONCLUSION AND SIGNIFICANCE

Through the above research, this paper concludes the main research conclusions which are as follows:

First, the cost of new generation migrant workers' citizenization includes individual costs and social costs. Individual cost includes costs of living, housing costs, social security costs and opportunity costs of giving up the identity of farmers. Social costs include costs of infrastructure construction, costs of basic medical and health, and costs of public administration, etc.

Second, we conclude that the total cost of the new generation migrant workers' citizenization in Chongqing is 91975 yuan. Housing costs, social security costs, and costs of infrastructure construction are the main expenditures in citizenization. In addition, the education and training costs only account for 3.1% of the total costs, which shows that

the education and training investment of new generation migrant workers and their children is insufficient.

This paper has very important significance for the calculation of the costs of new generation migrant workers' citizenization in Chongqing. On the one hand, as one of the four municipalities, Chongqing plays an important leading role for the economic development of Southwest China. The calculation of the costs of new generation migrant workers' citizenization in Chongqing has reference significance for the study of citizenization in southwest areas and China. On the other hand, through the qualitative and quantitative analysis of the citizenization, we can dialysis the difficult and important problems in the process of citizenization, and provide the corresponding countermeasures to promote the citizenization.

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