Establishment of Indication System for Evaluating the Citizenization Level of New Generation Migrant Workers and Its Application

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Abstract Scientific and reasonable indicator system is the key for evaluating citizenization level of new generation migrant workers. With reference to basic connotation of endogenous and exogenous variables and in view of citizenization characteristics of new generation migrant workers, it built an evaluation indicator system including endogenous indicators based on micro-individual and exogenous indicators based on meso-urban environment and macro-national policies. Besides, combining current situation of new generation migrant workers in Jiangsu Province, it evaluated citizenization level of the indicator system, in the hope of providing certain reference for evaluating citizenization level of new generation migrant workers.

Key words New generation migrant workers, Citizenization level, Indicator system

According to Monitoring Report of Migrant Workers in 2013, the total number of new generation migrant workers has reached 125.28 million, accounting for 46.6% of the whole migrant workers. As core forces of contemporary migrant workers, new generation migrant workers are not only influenced by blood lineage and status of traditional farmers, but also influenced by urban cultural system and life style, so they are a group most easily integrating into cities. With the first generation migrant workers returning to rural areas and gradually fading out from the tide of migrant work, the new generation migrant workers will play a more and more important role in urbanization construction. Taking them as study object is a wise choice and it is urgent and necessary for building a practical and effective evaluation indicator system for citizenization level of new generation migrant workers.

1 Concept of citizenization level of new generation migrant workers

1.1 Definition and characteristics of new generation migrant workers The term "migrant worker" was introduced by Professor Zhang Yulin from Chinese Academy of Social Sciences. With advance of industrialization, the migrant worker is not a highly homogeneous group[1]. In line with obvious intergenerational changes of rural floating population, famous scholar Wang Chun-guang put forward the concept of " new generation migrant workers" in 2001. Although there is difference in understanding of new generation migrant workers, most scholars agree that new generation migrant workers are those migrant workers born after the 1980s, having high material and spiritual demand, high occupational expectation, high educational level, but low work endurance[2]. New generation migrant workers generally have following characteristics: young age (16 – 35 years old), high educational level (above junior middle school), no farming experience, high enthusiasm for integrating into cities, gradual approval of institutional status, and slow decline of hometown complex[3].

1.2 Connotation of citizenization As a sociological term, citizenization is widely applied in the study of three issues concerning agriculture, farmers and rural areas in recent years. Famous sociologist Zheng Hangsheng believed that farmers constantly accept various genes of modern urban civilization before realizing transformation of status and occupation, and they develop corresponding ability after realizing transformation. Through such ability, they use their citizen rights and finally integrate into cities.

In this study, citizenization is the process of farmers transforming to urban citizens in the action of social economic development. Along with this process, it is not only the economic change, it also involves change of social status, value concept, and life style. The ultimate objective of citizenization is to eliminate differences between rural farmers and urban citizens, to eliminate discrimination and gap.

2 Current situations of the study on evaluation indicator system for citizenization level of new generation migrant workers

Through searching key words "new generation migrant workers" and "citizenization of migrant workers" in China National Knowledge Infrastructure (CNKI), there are numerous papers, but searching key words "citizenization level of new generation migrant workers", there are no more than 10 papers, and the papers about evaluation of citizenization level of migrant workers are fewer. It indicates there is space for in-depth study. As to building the evaluation indicator system for citizenization level of new generation migrant workers, scholars generally focus on following points.

Ma Yonghao et al[4] believed that complete indicator system...
of farmer citizenization should include population quality, concept, behavior, social rights, living quality, and social participation. Using Analytic Hierarchy Process, Liu Chuanjiang et al.\(^6\) designed indicator system from living occupation, social status, self quality, and awareness and behavior, which avoids defects of equal indicator weight. Wang Guixin et al.\(^6\) established an indicator evaluation system consisted of living condition, economic life, social relation, political participation, and psychological approval from the perspective of micro-subject. With the aid of Bi-probit Model, Zhang Guangsheng and Zhou Mi\(^7\) evaluated citizenization level of new generation migrant workers in the study area and analyzed differences influencing citizenization level.

The above researches have high theoretical value and realistic significance. However, the study of citizenization level of new generation migrant workers is a systematic work, most scholars start only an aspect and it still lacks accurate grasp for overall citizenization level. In this study, with reference to the above researches, combining characteristics of endogenous and exogenous variables, we established an indicator system for evaluating citizenization level of new generation migrant workers, to promote rapid development of China’s urbanization construction.

3 Establishing indicator system for evaluating citizenization level of new generation migrant workers

3.1 Ideas of establishing the indicator system

According to traditional opinions, most new generation migrant workers are young, unmarried, and male. However, according to researches of Zhang Guangsheng et al., some new generation migrant workers are married, have junior middle school education, and the proportion of men and women is relatively coordinated. These characteristics show that there are great differences between new generation and previous generation migrant workers. Therefore, it is necessary to improve the past indicator system. In addition, the citizenization of new generation migrant workers should not only the process of migrant workers voluntarily exiting rural mechanism and going to cities to work and study, but also should be a process of the state encouraging cities to actively admit, understand and promote their citizenization.

On the basis of these ideas, combining factors influencing citizenization level of new generation migrant workers, with reference to connotation of endogenous and exogenous variables, we divided the indicator system for evaluation of citizenization level into endogenous and exogenous types. Endogenous indicators are internal motive indicators determining citizenization level of new generation migrant workers and are motive power of citizenization level, while exogenous indicators are indicators influenced by meso-environment and macro-national policies and are external motive force promoting realization of citizenization level.

3.2 Establishing the indicator system and decomposition of indicators

Using AHP model, we firstly decomposed the target level and determined the criterion level, namely the first level indicators. Then, we decomposed the criterion level and determined the sub-criterion level, forming the second level indicators. Finally, we changed the targets into actual operation level, forming the third level indicators. Such decomposition has following advantages; (i) taking systematic analysis method as basis, the indicators will be more scientific; (ii) it is comprehensive and can avoid missing essential indicators; (iii) it can effectively manifest actual attribute of the evaluation object and improve reliability of evaluation.\(^8\)

With reference to previous research findings and by combining characteristics of new generation migrant workers, we determined a framework of evaluation indicators system in broad sense, including endogenous indicators and exogenous indicators. The target level is citizenization level of new generation migrant workers; the criterion level includes endogenous indicators (micro-individual indicators), exogenous indicators (meso-environment and macro-policy indicators), levels spread out and form the sub-criterion level, finally form the operation level, and forming a comprehensive, well-arranged and independent indicator system. Decomposition of indicators of each level is as follows:

3.2.1 Decomposition of endogenous indicators

Endogenous indicators are also called micro-individual indicators, involve various micro-elements of citizenization process of migrant workers, and also a miniature of citizen demands of migrant workers. According to behavior and psychological characteristics of citizenization process, we decomposed endogenous indicators into two secondary indicators, namely citizenization willingness and citizenization ability. Since the citizenization willingness is the basic precondition for realization of citizenization, we designed the third level indicators from whether they are willing to stay in cities, years of migrant work, future plan, and willingness hometown land circulation. These four indicators can be obtained through questionnaire. Citizenization ability is the guarantee for realizing citizenization willingness and also powerful support for citizenization process. Existing researches generally make evaluation through proportion of income level. This is slightly biased. In this study, we not only observed income level of migrant workers, but also analyzed the influence of consumption and housing of migrant workers on citizenization process. Besides, educational level promotes citizenization process, and we included it into evaluation indicators. Therefore, the citizenization ability can be evaluated from cultural quality, income level, consumption ability, and living types.

3.2.2 Decomposition of exogenous indicators

Exogenous indicators include all external social and institutional factors influencing realization of citizenization of new generation migrant workers. They influence operation effect of endogenous indicators and are motive force of citizenization. Exogenous indicators can be decomposed into living environment, social security, political rights and cultural life.

Living environment indicator can be divided into urbanization rate and per capita GDP. Jiang Yingping and Wei Houkai\(^{15-16}\) adopted these two indicators in the building of citizenization evalu-
ation indicator system. These two indicators are key indicators attracting migrant workers to cities and also major indicators in the urbanization process.

Social security indicator includes relevant insurance and protection measures provided by the state for migrant workers. Social security indicators consist of many types of insurances, such as endowment insurance, medical insurance, industrial injury insurance, unemployment insurance, and birth insurance.

For political right indicator, we took the right to vote and the right to stand for election and community management participation right as evaluation indicators. The right to vote and the right to stand for election are basic rights of citizens. Migrant workers are also citizens, so their basic political rights should be guaranteed. Community management reflects whether communities where migrant workers live fairly guarantee autonomy of migrant workers. These two indicators manifest whether basic political rights of migrant workers are fulfilled.

Cultural life indicator is divided into children education, cultural and recreational facilities, and availability. Children education mainly refers to whether children of migrant workers have received education of building site, and community management and availability of recreational facilities mainly evaluate whether migrant workers enjoy the same rights as urban residents in community management and cultural and living facilities. These three indicators are exogenous factors influencing citizenization of migrant workers.

In our indicator system, there are objective indicators, such as urbanization rate and per capita GDP, and also subjective indicators, such as willingness of hometown land circulation and availability of public services and resources. In actual evaluation, the data of objective indicators can be obtained from Statistical Yearbook and special yearbook of the whole country and all areas. The data of subjective indicators can be obtained through questionnaire.

3.3 Determination of weight In this indicator system, indicators reflecting current situation of migrant workers include 6 second level indicators and 20 third level indicators. We believed that they are equally important. All exponential weights adopt the method of field average weight, assigning each subsystem with the same weight, and each indicator in the same field with the same weight. Such operation can avoid too subjective arrangement of weights [13]. Wang Guixin and Zhang Fei adopted similar weight methods.

<p>| Table 1 Building of the evaluation indicator system for citizenization of migrant workers |
|---------------------------------------------|-------------------------------|--------------------------|-----------------------------|--------------------------|</p>
<table>
<thead>
<tr>
<th>Citizenship level U</th>
<th>Weight</th>
<th>First level indicators (2)</th>
<th>Weight</th>
<th>Second level indicators (6)</th>
<th>Weight</th>
<th>Third level indicators (18)</th>
<th>Data source</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.5 Endogenous indicators</td>
<td>0.250</td>
<td>Citizenship willingness I</td>
<td>0.125</td>
<td>I1: Whether they are willing to stay in cities</td>
<td>Survey data</td>
<td></td>
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<tr>
<td>0.250 Citizenship ability C</td>
<td>0.125</td>
<td>I2: Years of migrant work</td>
<td>0.125</td>
<td>I3: Future plan</td>
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<tr>
<td>0.125 I4: Willingness for hometown land circulation</td>
<td>Survey data</td>
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<td>0.125 C1: Cultural quality</td>
<td>Survey data</td>
<td></td>
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<tr>
<td>0.125 C2: Relative income level</td>
<td>Yearbook data</td>
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<tr>
<td>0.125 C3: Relative consumption level</td>
<td>Survey data</td>
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<td>0.125 G4: Living conditions (housing type)</td>
<td>Yearbook data</td>
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<td>0.0625 E1: Urbanization rate</td>
<td>Survey data</td>
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<tr>
<td>0.0625 E2: Per capita GDP</td>
<td>Yearbook data</td>
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<tr>
<td>0.125 Social security S</td>
<td>0.020</td>
<td>S1: Endowment insurance</td>
<td>0.020</td>
<td>S2: Medical insurance</td>
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<tr>
<td>0.020 S3: Industrial injury insurance</td>
<td>Survey data</td>
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<td>0.020 S4: Unemployment insurance</td>
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<td>0.020 S5: Birth insurance</td>
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<td>0.020 S6: Housing fund</td>
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<td>0.0625 P1: Right to vote and the right to stand for election</td>
<td>Survey data</td>
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<td>0.0625 P2: Community management</td>
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<tr>
<td>0.125 Political rights P</td>
<td>0.0625 L1: Children education</td>
<td>Survey data</td>
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<tr>
<td>0.0625 L2: Sports, cultural and recreational facilities</td>
<td>Survey data</td>
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4 Empirical study of evaluation indicator system for new generation migrant workers: with Jiangsu Province as an example

To obtain firsthand data, we made a field survey in 13 cities in southern, central and northern Suzhou Province in the end of 2014. Through preliminary survey, large scale survey and supplementary survey, we issued questionnaire randomly to certain number of migrant workers in each city and helped them to answer questions and collected questionnaire in site. In total, we issued 800 copies of questionnaire and collected 793 valid ones. Survey...
sample comprehensively covers agricultural transfer population in Jiangsu Province.

The evaluation model for citizenization of migrant workers in Jiangsu Province is as follows:

\[
\begin{align*}
U &= DN^W W^D \\
N &= 1/2 (I + C) \\
W &= 1/4 (E + S + P + L)
\end{align*}
\]

where \(0 \leq U \leq 1\), \(0 \leq N \leq 1\), \(0 \leq W \leq 1\), \(\alpha = \beta = 1/2\). D is basic situation of migrant workers, including gender, age, and marital status; N is endogenous indicator, W is exogenous indicator, and N consists of citizenization willingness I and citizenization ability C with the same weight. Exogenous indicators consist of living environment E, social security S, political rights P, and cultural life L, with each having weight of 1/4. 

4.1 Evaluation of endogenous indicator N Citizenization willingness indicator I; for indicator I, 37% migrant workers are unwilling to stay in cities, and 63% are willing to stay in cities. Indicator I2 is an indicator reflecting period of migrant workers getting in touch with cities. Generally, the higher this indicator, the deeper influence of urban political, economic, cultural and life concept, and the stronger willingness of citizenization. Through questionnaire, we obtained that the average I2 is 9.316 years, and compared with the years of migrant work (20), we obtained the proportion of 46.58%. Indicator I3 mainly reflects selection of migrant workers for future residence. Through comprehensive calculation, the proportion of selecting staying at cities and towns is 48.8% and 26.93% respectively, showing high attraction of cities to migrant workers. The indicator I4 brings willingness of citizenization more prominent, only 34.05% selected abandoning their land with or without compensation. These indicate that farmers still keep traditional idea and leave a way for retreat at the same time of migrant working. Land is the foundation for survival of both traditional and modern farmers. To promote substantial development of citizenization process, the state should dispel worry of migrant workers for future security.

Citizenization ability indicator C: cultural quality is a soft and key indicator determining citizenization level. In this study, we took educational level as indicator for evaluating cultural quality and fully considered the function of educational level in the citizenization process. Our survey indicates that about 47.6% new generation migrant workers have received education of senior middle school or special secondary school. The overall educational level of migrant workers in Jiangsu Province has considerable improvement compared with the first generation migrant workers. This indicates that great improvement in citizenization ability of migrant workers in Jiangsu Province and possibility of realizing the new urbanization construction in Jiangsu Province. The income level adopts relative income level. Combining the income of migrant workers in Jiangsu Province of the whole year of 2014 and comparing with the income of urban residents of Jiangsu Province in the same year, we obtained the corresponding value 46.07% as indicator of evaluating income level. Both the consumption level and income level adopt the same measurement method and the measurement result is 64.24%. Living condition is mainly evaluated from types of houses. We firstly assigned weight to different types of houses, calculated proportion of each type of house, and finally obtained statistical value of 63.49% through weighted summary.

4.2 Evaluation of exogenous indicator W Living environment indicator; both urbanization rate and per capita GDP come from Statistical Yearbook of Jiangsu Province. Through calculation, the urbanization rate of Jiangsu Province is 64.1%. Per capita GDP reaches 48.625%. Social security indicator; the data come from medical insurance, endowment insurance, industrial injury insurance, unemployment insurance, and birth insurance, and public housing fund. The proportion of endowment insurance is 20.34%, medical insurance is 26.15%, industrial injury insurance is 23.55%, unemployment insurance is 9.14%, birth insurance is 5.87%, and public housing fund is 4.9%, and 9.99% migrant workers said that their company never bought any insurance for them. Political rights indicator includes the right to vote and the right to stand for election and community management participation right. Since both indicators are difficult to obtain, we took 25% as the value of political rights indicator with reference to researches of Chen Min and Han Jinze[17] and Gao Honggui et al[18]. Cultural life indicator covers children education and recreational facilities. Through calculation, the children education value is 31.12%. For the availability of recreational facilities, we adopted survey of public service enjoyment, and about 19.74% migrant workers stated that their recreational life was greatly improved after migrant working.

The final evaluation results; the citizenization of migrant workers influenced by endogenous indicators is 54.35%; the citizenization of migrant workers influenced by exogenous indicators is 32.33%; excluding individual difference of citizenization, the proportion of citizenization of migrant workers in Jiangsu Province is 42.36%.

5 Conclusions
Scientific and effective indicator system is the key for evaluating citizenization level of new generation migrant workers and also the precondition for promoting China’s economic development and accelerating urbanization process. With reference to connotation of endogenous and exogenous variables and existing evaluation indicator system, we built an evaluation indicator system for citizenization level of new generation migrant workers based on endogenous and exogenous variables. It is expected to provide certain basis for describing current situation and coordinating mechanism for citizenization level of new generation migrant workers, and provide certain guidance for actual evaluation of citizenization level of new generation migrant workers. Besides, it is expected to provide certain support and reference for relevant departments making and implementing policies. However, there are certain differences between different regions and levels of government in understanding

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and evaluation of citizenization level of new generation migrant workers, and there are also certain differences in relevant urban environment and policies and measures, thus it is unrealistic to design a universal evaluation indicator system for all policies and environment. In actual operation, it is feasible to take this indicator system as basis, combine specific environment and evaluation characteristics, and consider measurability of relevant indicators, and availability of relevant data, in order to flexibly increase or decrease indicators, and make proper adjustment of indicators weight.

References


