LITERATURE REVIEW

Research on quality of life in the west

Since America has entirely different situation from China, there is no so-called migrant workers in the US. Consequently, the study on the quality of life would not focus on this subject. So here the author simply made a brief review of the basic state of related research on the quality of life in the US. Owing to the limited sources, the following words could not serve as the basic judgment of the research on American quality of life.

In the 1960s, the research on quality of life was isolated as a specialized field, whose importance has drawn attention of many subjects, such as economics, psychology and sociology (Schuessler & Fisher, 1985). In the Quality of Life Research and Sociology coauthored by Schuessler and Fisher, the authors made a thorough review of the basic state of the research on quality of life in the US and Canada, which involved the definition, the measure, the empirical research, the theoretical points and the impact on the public policies of the quality of life, and made a brave prediction on the future of the research on quality of life in the field of sociology.

Mark Schneider (1975) has ever pointed out in his research on the construction of the quality of life index of American metropolis that the concept of quality of life could serve as the tool to make a research on the comparison between different social indexes, and he proposed that the quality of life could be evaluated from two aspects, the subjective and the objective point of view, both of which should be attached great importance in the research of social index of the future. Through the analysis of the relevant statistics, there is no relationship between the objective social index on social welfare and the subjective quality of life closely connected with one's personal experience on the city level. However, someone could not share his point of view. Ira M.Wasserman and Lily Aurora Chua (1980) have carried out a test of the research results of Mark Schineider by making
use of the data from the survey in 1972 and 1973 and them expressed their criticism of Schneider’s research. Both of them hold the idea that the subject and object elements on quality of life under certain circumstances are related to each other and essence of the relationship requires to be further explored.

Ed Diener and Eunkook Suh (1997) have made a discussion of the three methods of evaluating quality of life: social indicators, subjective well-being measures and economic indices, and they also reviewed the merits and shortcomings of each one and pointed out that each of the methods has embraced some information that could not be entirely contained in another one.

Through the comparative study of 43 countries in the early 1990s, Ruut Veenhoven (1999) found out that the level of individualism of the country was positively correlated with the quality of life of each individual, but this positive correlation depends on the educational level and economic prosperity. Later on, Ruut Veenhoven (2000) has established four categories of quality of life: livability of the environment, life-ability of the individual, external utility of life and inner appreciation of life. However, Ruut pointed out that the overall evaluation of quality of life was unreal.

From the above analysis, we may draw the conclusion that there are three features of the research made by the abroad scholars (mainly from the US). First, they have attached great importance to the construction of quality of life index. Second, they emphasized empirical study. Third, they pay more attention to make theoretical conclusion from the empirical researches.

**Research on quality of life in China**

Professor Lin Nan is the pioneer in quality of life research in China. Based on the systematic analysis of the levels of quality of life, Lin Nan (1987) and his work colleagues utilized the survey of hundreds of households in Tianjin in 1985, factor analysis and structural equations modeling to construct the comprehensive index of quality of life of Tianjin citizens. In another research faced at Shanghai residents, Lin Nan and Lu Hanlong (1989) extended the measurement of quality of life from “cognition-emotion” model to “cognition-emotion-behavior” model. At the same time, it is Lin Nan’s research that has introduced American focus on the subjective satisfaction in the research of quality of life to China (Feng Xiaotian, 2007).

Lu Shuhua and Wei Luying(1992) made a further exploration of the relationship between the
subjective evaluation to living conditions and the degree of satisfaction of one’s life by making use of a sample survey in Beijing, Xi’an and Yangzhou. They have also emphasized the influence made by different standards of reference to the subjective index of quality of life, which has pushed forward the research on quality of life in China.

Feng Xiaotian and Yi Songguo (2000) turned their perspective of research to the family. By the utilization of the survey made in Wuhan in 1995 and multiple regression analysis, they have made an exploration on the subjective and objective index that affect the quality of life in urban families and proposed that the biggest influence to the quality of life in urban families is the satisfaction from the living conditions and their marriage.

The above researches mainly focus on the quality of life of the city residents and put more emphasis on the utilization of surveys in the construction of the comprehensive index. However, there is few research made on other groups, especially on the migrant workers. Since 2000, the researches on quality of life of migrant workers have started to increase. More work has been done since 2005.

Zong Chengfeng and Zhu Qizhen (2007) took 897 migrant workers in Nanchang as samples and made a survey from 12 perspectives, the sex, the age, educational background, industries engaged, time period of migrant working experience, income, stability of the work, safety of the work, residence, medical treatment, spiritual life and the satisfaction of his living conditions by questionnaire survey and deep interview. Song Zhishen, Tanjie and Wang Xiangyong (2007) have also made a survey on the living conditions of migrant workers and found that there is great gap between the migrant workers and city dwellers from the perspective of income, the ability of consumption, residence, health and medical care, working hours, social security and the protection of their benefits. A national survey made by the research group of State Statistics Bureau (2007a) for the quality of life of migrant workers in August 2006 has demonstrated the poor living conditions of migrant workers, the prolonged working hours, the high spending of living, the poor educational background, the low social securities, the bad working and living environment and the fewer training and entertainment. The above researches are helpful to get to know the quality of life of migrant workers, but they are short of the deep analysis and statistical test of the elements that affect the living conditions of migrant workers.

Based on the previous survey, the research group of State Statistics Bureau (2007b; 2007c)
constructed “the index of quality of life of migrant workers”, which embrace income and consumption, residence, health, medical treatment, working hours, social security and the protection of benefits. By means of no-dimension analysis, principal component analysis and consultation to experts, they confirmed the weight of each index and eventually drew the conclusion that the index of quality of life of migrant workers in 2006 is 0.532, which means the quality of life of migrant workers is equal to 53.2% of that of the city dwellers. Later, they used the index of quality of life as dependent variable, and analysis the influence of population characteristics variable, human capital and census register variable, household characteristics variable, working characteristics variable and regional variable to quality of life by regression analysis. It is necessary to point out the three problems of the above two research. First, it is very difficult to standardize the affirmation of the weight of those indexes (Zhou Changcheng, Yuan Hao, 2002) and the comparative study would be hard to implement. Second, since quality of life index which serves as the dependent variable has involved the income of migrant workers, there should not be income variable in independent variables. It is impossible for a variable to be equipped with both of the two identities in serious statistical analysis. Third, the value of the index is hard to remain neutral. In the research, the analysis of the index should be attached more importance than the measurement (Cob, 2001).

Liu Yulin and Liu Ming (2009) made a research on the quality of life of migrant workers in Chongqing province by the usage of factorial analysis and regression analysis and he proposed that the elements like employment, material life, social security, protection of benefits, mental and physical health, spiritual life are the primary influential elements to the quality of life of migrant workers.

Above all, the literature on quality of life of migrant workers by empirical study could be divided into two groups. One group focused on the description of statistics that represent the basic state of quality of life of migrant workers. The other group made analysis on the primary elements that affect the migrant workers’ life by adoption of factorial analysis and principal component analysis. It can be seen that the discussion on the quality of life of migrant workers gradually goes deeper.

DATA, MEASUREMENT AND METHOD
Data

The data used in this paper were mainly from the questionnaire survey in 2010 to the Pearl River Delta and Yangtze river Delta migrant workers. The pearl river delta cities include Guangzhou, Shenzhen, Zhuhai, Foshan, Zhaoqing, Dongguan, Huizhou, Zhongshan and Jiangmen, the Yangtze river delta cities include Shanghai, Nanjing, Ssuzhou, Wuxi, Changzhou, Nantong, Hangzhou, Ningbo, Jiaxing and Shaoxing. Specific sampling plan can be referenced from Liu Lin ping, Zheng Guang huai, Sun Zhong wei (2011). A total of 4254 copies of questionnaires, among which 4152 are valid questionnaires, the effective rate was 97.6% (Liu Lin ping, Yong Xin, Shu Fen fen, 2011).

Measurement

This study focuses on the life quality of migrant workers. In the setting of questionnaires, there was a topic "please give score to the city you work in ", quality of life was also included. The content of the score was from 0 to 4, high score means good life quality. Score is discrete variable, its essence is classification variables. This article treats the different score as different categories, and divides into three classification, on behalf of the life quality as "high, medium and low".

Control Variables

The main control variables includes age, gender, education level, spouses living area (if married), having children or not and self-reported health condition. The processing mode for age includes two kinds: one is treating age directly as one variable into the model, the other is treating the square of the age into the model. The female gender was considered as reference group. Education degree is divided into four categories, including primary school and the lower, junior high school, high school (including high school, technical school and technical secondary school) and college and undergraduate course also elementary school. The group of primary school and the lower is chosen as reference group. Data about marriage has two variables, marital status and whether live with spouse together. Marital status is divided into three categories, single, divorced or widowed and married and the unmarried group is reference group. The group of not living with spouse together is chosen for reference group. For children, the group with no children is the
reference group. Self-reported health condition has three categories, respectively as "unhealthy", "so so" and "health", unhealthy group is reference group.

Independent Variables
The main independent variables include: economic conditions, residence area, enterprise factors, social security, rights and interests and the city.

Economic conditions include: family income and whether income has balance, the latter chooses no balance for reference.

Residence area of the unit is square metre/person.

Enterprise factors include three types: working time, working type and the enterprise characteristic. Working hours are calculated by multiplication of a week’s work days and daily working hours. Type of work is divided into common worker, technicians, Low-level management employees and other four class, and the common worker group is reference group. Characteristic of the enterprise is divided into collective enterprise, state-owned enterprises, joint-stock company, private enterprise, foreign enterprise and other, collective enterprises is reference group.

Social security factors include: endowment insurance, medical insurance, industrial injury insurance and unemployment insurance. Four kinds of insurance for all processes have two categories, the group without insurances is reference group. One detail needs to be explained, that the options include "not clear", considering the signing of the contract of insurance to the parties concerned to provide the identity information and sign, therefore, the treatment for "no" is logical and realistic.

Rights and interests protection factors include: labor contract, operation at risk and work environment for the body without harm. Whether sign a written labor contract has "not signed" as the reference group; risky work group treats "have risk" as the reference group; the group pf "Working environment for the body is harmful or not " treats harmful group as the reference group.

RESULTS AND ANALYSIS

This research mainly focuses on the influence of some elements like residence, enterprises, social
security and the protection of benefits to quality of life of migrant workers. Variable of the individual level here has been regarded as the controlled variable.

**Variable of the individual level**

Age is continuous variable, but since the distribution is nonlinear, the square of age has been added in. The results of model 3 and model 4 demonstrate that the square of age play a notable influential role in the quality of life of migrant workers. Sex does not have prominent affection on the life of migrant workers in Pearl River Delta and Yangtze Delta. The former research indicates that age has great influence to the quality of life of migrant workers (the research group of State Statistics Bureau, 2007b). The possible explanation is the skewness of the distribution. Migrant workers at the age of 50 and the above simply occupy 3.52% of the total amount of the samples. Sex does not play a prominent role in the life of migrant workers.

From the perspective of education, in the benchmark model, the group of senior high school, technical secondary school, technical school and the group of junior college have higher quality of life compared with the group of primary school and below, but as the addition of other variables level by level, the prominence of these two groups has disappeared, so it can be seen that the prominence has been affected by other variables. In the model 2 to 4, the group of junior high school is more prominent. Because of the negative coefficient, we may draw the conclusion that the life quality of the groups of junior high school and primarily school is low.

In the state of marriage, whether married or not does not have prominent influence to the quality of life, while the divorced or widowed groups are more prone to be influenced negatively than the group of unmarried. This result conforms to the common sense of individuals. Whether to live with their spouse or children has little effect to quality of life of migrant workers.

As for health condition, the groups of normal and good have prominent influence to their quality of life compared with the group of unhealthy and the coefficient is positive. So health condition has been a crucial influential element. Self-rated health is a subjective index and subjective dimension has always been held important in the western research of quality of life (Bryant & Veroff, 1984). Considering the international convention and the results of the research, it could be regarded as an important dimension in the evaluation on quality of life of migrant workers.

**Income and residence**
This paper has not set the average wage per month of the migrant workers in the model for two considerations. The first consideration is the collinearity with other incomes and the second one is that the concept of profits of migrant workers is based on the unit of one family (Liu Linping, Zhang Chunni, Chen Xiaojuan, 2010), so the surplus has greater influence to their quality of life than the income. Thus, only the gross income and surplus of the family has been put into the model as two variables. The gross income has outstanding influence to their quality of life and coefficient is positive, which indicates the increase of gross income of the whole family contribute to the improvement of their life quality. The group of having surplus has higher life quality than the group without surplus.

**Enterprises**

The variables related with enterprises include working time, type of work and nature of the enterprise. The opposite side of working is leisure. As for the importance of leisure, Veblen (2009) has made brilliant comment. It has been demonstrated by the empirical study that the healthy and positive activities promote the increase of economy (Yu Changlin, 2006) and the happiness of the national people (Wei Xiang, Chen Qian, 2012). The working time of migrant workers is as high as 56.34 per week. The prolonged working hours could result in the shortage of leisure and the decrease of their life quality. The results indicate that the element of working time has negative influence to quality of life. The longer they work, the lower their quality of life is.

Taking general workers as reference, technical workers and other types of workers do not have prominent influence while the effect of management personnel of middle and low levels is considerable. The coefficient of model 4 is higher than model 3, which means that the quality of life of those management personnel of middle and low levels is higher than the general workers. Vocation has certain influence to one's life quality and sense of happiness (Sun Feng, 2007; Qiu Haixiong, Li Gan, 2012). The vocational status of the migrant workers is not obvious. Comparatively speaking, the management personnel have higher status and thus they have higher quality of life.

Taking collectively-owned enterprise as reference, the life of the workers employed by state-owned enterprises, private enterprise and foreign-funded enterprise is poor, among which the life quality of the migrant workers in foreign-funded enterprise is the lowest. Why the workers at state-owned enterprises, private enterprise and foreign-funded enterprise are lower than
collectively-owned enterprise? As for the state-owned and foreign-funded enterprises, the reason could be explained by the reference group theory (Merton, 2008). Compared with the formal employees in state-owned enterprises, migrant worker lack of the relevant welfare, while compared with employees in foreign-funded enterprise, they receive much less income and have great sense of imparity. So it would not be surprise to see that their judgments of life quality based on their subjective point of view are poor. In private enterprise, the prolonged working hours and great intensify of working pressure would result in the decrease of their life quality. Of course, it still needs to make a further investigation on the influence from the types of enterprises, so as to make empirical research on the deep cause.

**Social security and social rights**

As for the variables of social security and social rights, only the three variables, namely whether to sign the written employment contract, whether their working environment is harmful and whether there is infringement of interests, present prominent influence. The workers who have signed employment contract and who work in the harmless environment with no infringement of their interests have more possibilities to obtain higher life quality.

It is surprising that whether to provide endowment insurance, medical insurance, employment injury insurance and unemployment insurance have little to do with the life quality of migrant workers, but a former research has ever specially pointed out that decent social security plays a dominant role in the improvement of migrant workers (Liu Yulin, Liu Ming, 2009). This result is confusing. From the perspective of designing systems, the above four insurances are out of the consideration for the benefits of the workers, which supposed to contribute to the improvement of migrant workers’ lives. But it is obvious that this “common reasoning” is not certain to be the consideration of the migrant workers. Answers could not be found in statistics and in the mode. Maybe the culture of migrant workers or Chinese farmers would tell us something.

**DISCUSSION AND CONCLUSION**

How to improve the life quality of of migrant workers has become a public issue. This group's contributions and treatment are extremely asymmetric. The study of foreign academia pays more attention to the subjective indicators of life quality of the the migrant workers, which apparently
does not suit Chinese ones. More attention should be given to the objective indicators of the life quality. Domestic scholars pay more attention to urban residents quality of life, and the attention to migrant worker group is insufficient. In the dual structure cases of urban and rural areas, it is not a realistic choice to apply urban residents’ life quality index. The purpose of this paper is to use empirical data to carry a preliminary exploration on the important influence factors of migrant workers’ life quality. The main findings are as follows

1. Reconsideration of education. In this study, education basically has no influence on the quality of life of migrant workers, besides the junior middle school and primary school and the lower groups tend to have lower life quality. This means the traditional national education may have very limited influence on the migrant workers. Hence, this paper holds the opinion that on improving migrant worker's human capital, we should learn from Europe and the United States' experience of increasing skills education efforts.

2. From the economic consideration on migrant worker's life quality, we should not only focus on migrant workers’ own income, but also consider the whole family income. Most migrant workers are farmers. The traditional farmers' benefit view has the family as the basic unit (Liu Linping, Zhang Chunni, Chen Xiaojuan, 2010), the whole family income is a kind of important factors influencing migrant workers’ quality of life. In addition, the income with balance or not has greater influence than income level to migrant workers’ quality of life. Chinese farmers' a deep-rooted idea is "food in hands, not panic of hearts". The migrant workers who are mainly farmers subjectively feel better with spare money in hand.

3. More attention should be paid to the impact of working types to migrant workers’ quality of life. The results can be seen from the model, as the lower management workers tend to have better life quality than the common workers. Such a result, on the one hand, is related to the objective factors of the work characteristic, such as, common workers and technicians have bigger labor intensity, longer working hours and limited professional promotion space etc.; On the other hand, we may also notice the traditional Chinese idea despises on physical labor, however, after all, the lower management personnel, is still a management staff.

4. Pension problem, medical treatment, industrial injury and unemployment insurance and risky work or not do not have significant influence on migrant workers’ quality of life. But in this paper, the author dares not make a clear judgment, this study results only suggests tentative
solutions. In this paper the author thinks that the reason should be digged from culture. Such as the traditional Chinese thought as 'Bring up their children for old age’ and the obligation to support their parents (Fei, 2004), etc. China's farmers pay more attention to the visible immediate interests, especially economic interests, and lack of consideration for the long-term interests. The identity of migrant workers and human capital determines the job risk, and not so high expectation to work. So whether the work is risky or not has no effect on the quality of life for migrant workers can be understood.

In addition, the author think that the following several problems still need further discussion:

1. Self-rated health condition of migrant workers have significantly influence on life quality. But we need to consider that self-rated health consideration is a subjective judgment. Although in Europe and North America's study of life quality, subjective index is an important dimension. For migrant worker, self-rated health does not necessarily mean the real health condition. The occupation with higher risk means the larger effects of health. Therefore, migrant workers’ health condition and medical treatment is still not allowed to be ignored. At present, on the the investigation of migrant worker's quality of life, the key point should remain as the objective indicators (research from the National Bureau of Statistics, 2007 b).

2. Based on migrant workers’city life quality evaluation as the dependent variable, it is not sufficient to cover all dimensions to quality of life. However, the author believes that the so-called high or low life quality is a subjective evaluation dimension. Choosing migrant workers’ evaluation of high or low quality of life as the dependent variable and the attempt to use model to discuss the influencing factors of life quality is also a nice try. Of course, strictly speaking, this paper mainly discusses the influence factors of migrant workers’ quality of life from the self-evaluation aspect.

3. Pension problem, medical treatment , industrial injury and unemployment insurance do not have significant influence on the quality of life or migrant workers. But this does not mean that they have no meaning to the migrant workers’ quality of life. Still, we should guarantee migrant workers to enjoy these insurance to safeguard their rights. Whether it is a risky job or not does not have significant influence to the quality of life either. But the working environment and conditions of the safety still are not allow to be ignored.

4. There are more research on the quality of life of urban residents, less research on migrant
workers’ quality of life. Comprehensive and systematic empirical research on the quality of life for migrant workers is an important premise to enhance the quality of their life. Only a comprehensive and deep, scientific research on the quality of life for migrant workers would help to make the right decision.

Finally, the author thinks that the policy for migrant workers life quality improvement must be transferred from state perspective (Scott, 2012) to the perspective of migrant workers, otherwise it is easy to be trapped in an embarrassing situation like the try to improve the quality of life for migrant workers tends to be not welcomed by them. A the moment of the whole nation are focusing on "Are you happy?", the group of migrant workers who has made great contribution to China’s development, deserve the society’s attention to their life quality.

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