International Journal of Database Theory and Application
Vol.9, No.1 (2016), pp.119-130
http://dx.doi.org/10.14257/ijdta.2016.9.1.11

An Improved Empirical Method for Evaluating Job Quality of the Working Poor: Results from Northeast China

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Abstract

This study identifies the job quality among the working poor in Harbin from five aspects: physical working environment, psychological working environment, job security and flexibility, job satisfaction and income. Three hundred and seventy-seven working poor people are recruited using convenience sampling strategies. Factor analysis and cluster analysis results indicate that there are three types of job quality groups among the respondents. Low job quality group shows the characteristics of adverse working environment, informal employment, middle ranking on relationship with co-workers, and low satisfaction on job quality. On the contrary, high job quality group presented the characteristics of comfortable working environment, formal employment, high ranking on relationship with co-workers, and high satisfaction. Multiple regression results indicate that gender, hukou system and educational background are closely associated with job quality. Female's job quality is higher than male's. People with nonagricultural hukou keep a higher job quality than people with agricultural ones. People who graduate from university keep a higher job quality than others.

Keywords*: Job quality; The working poor; Factor analysis; Multiple regression*

1. Introduction

During the past two decades, varieties of formal and informal sectors have been created in China with the urbanization process. This change has provided a plenty of employment opportunities and relived the employment pressure causing by the enormous population. However, very little is known about a raising group named 'the working poor', who are working and earning an income, but fail to earn enough to keep themselves and their family out of poverty. According to the recent studies, these workers are mostly in an awkward position: they are usually excluded from welfare policies because their incomes prevent them from living below the poverty line as well as they struggle in poor status [1-4]. In modern China, the group of the working poor is ignored for two reasons. On one hand, local government estimate their poverty line based on the income of unemployed individuals. Therefore the local poverty line can only identify absolute poverty, and employed but poor people are divided to non-poor section. On the other hand, the authorities' economic policies have put great attention to the employment rate. Hence to increase the employment rate has become the priority on Chinese anti-poverty policy since 1990s. Echoing the context of this policy, the public are also told that employment is the best solution against urban poverty, which implied that the employed people are not part of the poor. Due to the situation above, the topic of the working poor remains relatively under-researched in China during these years, and hence the body of literature dealing with working poverty and social policies on working poor assistance were limited.

In order to estimate the rough percentage of the working poor, researchers interviewed 500 persons randomly in Harbin (the capital of Heilongjiang Province in northeast of

ISSN: 2005-4270 IJDTA

China) in 2013, and 16.6% of them were in working poor situation. This exploratory study showed the existence of the working poor in a variety of industry in this city. Meanwhile, researchers also discovered that many interviewees faced a dilemma of overworking and poverty, which suggested that there may be a plenty of problems of their jobs such as overtime working, low income and adverse working environment. Therefore, researchers introduced job quality as a media to descript basic working status of the working poor in Harbin and discussed the characteristics on their employment status.

This article aims to describe the job quality of the working poor using data collecting from 377 respondents in Harbin, Northeast China, and analyzes the factors associated with their job quality. The article is organized as follows. First, a theoretical framework is presented, following which the research methodology is outlined. There are followed by results analysis. Finally, discussion and limitations are given.

2. Theoretical Framework

A key question for our study is the definition of job quality, since this concept is not clearly defined and difficult to quantify or measure. A institutional definition given by The European Commission defines job quality as " ……a relative concept regarding a job-worker-relationship, which takes into account both objective characteristics related to the job and the match between worker characteristics……" in 2001[5]. From this broad definition, two dimensions are distinguished between the objective dimension and the subjective one.

The objective dimension of job quality reflects the extrinsic characteristics of a job. Most of these characteristics are observable, and hence, indicators related to economic and physical facets of job are usually used. In most of the researches, 'income scheme' is commonly used to assess job quality, and wage is considered to be an explicit indicator of job quality [6-7]. Besides, indicators such as job security, safety standards, working hours, and working environment are also adopted to assist income scheme [8-10]. In recent years, comprehensive models of objective job quality are widely accepted. For example, Holman (2012) has suggested that a good job is a combination of five main aspects: work organization, wages and payment system, security and flexibility, skills and development, and engagement and collective representation [11]. Compared with the indicators mentioned above, comprehensive models of objective job quality focus on the combination of different aspects. Therefore, the characteristic of every aspect is weakened while the general quality of a job is highlighted. The previous researches have provided us a helpful perspective on job quality measurement [12]. Based on the reviewed studies, this research designed that the objective job quality contains three aspects: income, job security and flexibility and working environment.

The subjective dimension of job quality emphasizes the intrinsic and psychological aspects. In this dimension, scholars focus more on workers' feeling about their jobs. One of the most typical subjective indicators is job satisfaction which is commonly used to describe individual's subjective well-being at work. A number of economists and psychologists have provided clear evidence that job satisfaction can be used as an overall measure of the utility from work and workers' well-being since 1970s. For instance, Clark's research implicates that a worker's job satisfaction is highly correlated to his or her job quality [13]. This result suggests that the measure of subjective well-being such as job satisfaction can be used as an index to measure job quality. Holman (2013) suggest that jobs with high quality will result in high levels of job satisfaction and other positive job attitude [14]. In 2002, with the increasing concern of job quality, job satisfaction began to come to the policy circles. A series of aggregate indicators of job satisfaction were looked to as potential indicators for an assessment for job quality in "Lisbon agenda" for the European Union. Based on the reviewed researches, it is clearly that the objective features of the current job and job satisfaction can be expected to be strongly

correlated, and hence, this study use job satisfaction as the main indicators to measure subjective dimension of job quality among the working poor. Meanwhile, interpersonal relationship is also considered as one of the key indicators to measure individual's job quality. For example, the research of Sauter, Murphy and Hurrell shows that different interpersonal relations can provide different physiological working environment which influences individual's experiences of work [15].

In this study, a five-dimension scheme was used to measure the job quality of the working poor in China based on Clark's and Holman's researches (see Table 1), since there was few research in China focuses on the measurement of the working poor's job quality. Theses dimensions and indicators were selected because of the strong evidence that they could reflect important facets of a job. With this approach, we can keep a relatively fully understanding of the working poor's job quality.

Table 1. Dimensions and Indicators of Job Quality

Dimension	Facets	Items
Objective	Income	Monthly Income
	Physical Working Environment	Degree of comfort
		Degree of Health Damaging
		Sanitary Condition
	Job security and flexibility	Number of Working Days
		Labor Contract
		Job Security
Subjective	Psychological Working Environment	Relationship with Co-workers
		Relationship with Superiors
	Job Satisfaction	Satisfaction with Working Environment
		Satisfaction with Income
		Satisfaction with Job Security
		Satisfaction with Career Development

Besides the measurement of job quality, factors associated with job quality of the working poor are also important in our study. One major kind of factors contributing to one's job quality is biological factors, including age and gender. Youth and women tend to encounter working poverty by low job quality [16-17]. Policy-related factors are also associated with job quality. Latinos are more vulnerable to poor job quality because of the "chilling effect" caused by inefficient policies on immigration employment [18]. Low educational level hinders high job quality. Jobs of high quality often require a long period of skill training or knowledge accumulation, which excludes the people with low educational levels [19]. It is evident that some other social estrangement factors are also associated with the working poor's job quality such as ethnicity and immigration [20-22]. However, these cases rarely happen in Chinese. Thus we excluded them out of our study framework. Meanwhile, we brought the household registration as a policy-related factor. In Mainland China, household registration is called "hukou" in Chinese. It is a system limiting migration by distinguishing two classifications within the hukou system, the classification between agricultural and nonagricultural hukou. Despite reforms of the hukou system, it is widely believed that household registration (hukou) plays a fundamental role in migrant workers' life chances. Therefore we introduced hukou to our study as a factor to examine its association with job quality [23-25].

3. Method

3.1. Study Design, Sampling, and Measures

Respondent recruitment took place during 2014 in Harbin. Using convenience sampling, researchers recruited respondents from employing units or places where part-time workers gather. Inclusion criteria for study participation were (a) being above 16 years of age; (b) being in employment for 1 given year and (c) with families whose annual per-capita income lower than 50% of the national income of China in 2012 (about CNY 12,419). Researchers administered a 45 to 90 minutes structured interview to record the working poor's demographic information, education, hukou status, and employment status. All interviews were conducted on the interview spots. Interviewees were compensated a gift for the interview.

3.1.1. Dependent variable: Respondents' job quality was measured from objective dimension and subjective one. Objective dimension included three items: monthly income, job security and flexibility and physical working environment. Monthly income was measured by its numerical values. Job security and flexibility included three parts: working hours, labor contract and the working insurances. Working hours was measured by its numerical values. Labor contract was measured by asking respondents' contract forms (0= no contract, 1= oral contract, 2= written contract). According to the Labor Law of the People's Republic of China, there are 6 kinds of basic working insurances including endowment insurance, medical insurance, employment injury insurance, unemployment insurance, maternity insurance, and housing fund. Based on this policy, working insurances was measured on a 6-point scale from 0= none of them to 6= all of them. Physical working environment included the degrees of comfortable, heath damaging and sanitary conditions of their workplace. All the three variables were measured on a 5-point Likert-type scale (1= very bad to 5= very good).

Subjective dimension included respondents' relationship to co-workers and supervisors, and their job satisfaction. All the items were measured on 5-point Likert-type scales .

3.1.2. Predictors of employment status: Demographic information included age, and gender (1= male, 2= female). Educational background was measured by asking the interviewee's highest educational level (graduated from primary school, middle school, technical secondary school, high school, college or university). Hukou was measured by asking whether the respondents' hukou were agricultural or nonagricultural (1=nonagricultural, 2 = agricultural).

3.2. Data Analysis

Factor analysis was used to evaluate job quality. Cluster analysis was used to identify the characteristics between clusters. Multiple regression analysis was used to examine the relationship between predicators and job quality. Six dummy variables were designed to help the nominal variables (educational level, household registration and gender) adapt to the multiple regression model. The dummy variables were designed as following:

3.2.1. Educational Background: As we took people with "middle schools and below" as reference group, the other four groups were dummy variables. They were educational level 1(1 = technical secondary schools; 0 = others); educational level 2 (1 = high schools; 0 = others); educational level 3 (1 = colleges; 0 = others); educational level 4 (1 = universities; 0 = others).

3.2.2. Hukou and Gender: As we took people with "non-agricultural hukou" as reference group, the agricultural hukou group was dummy variable, and was designed as

hukou 1 (1 = agricultural, 0 = other). In the same way, we considered female as reference group, the male group was dummy variable, and was designed as gender1 (1 = male; 0 = other)

4. Result

Table 2 presents the demographic characteristics of the full sample (n = 377). From an overall perspective, young people are the majority (average age = 29.35). More than half of the respondents are male (55.2%) with agricultural hukou (51.2%) and with primary or middle school educational level (42.4%). 54.4% of the whole are informally employed at the time of the study or in the month prior, and their average income is CNY 2209.27 per month.

Table 2. Demographics of Full Sample of the Working Poor in Harbin

Demographics		Mean	SD[a]	N[b]	%
Age	Age	29.35	8.913		
Gender	Male			208	55.2
	Female			168	44.6
Hukou (*n*=376)	Nonagricultural			183	48.6
	Agricultural			193	51.2
Educational Level (*n*=376)	Primary School or Middle School			160	42.4
	Technical Secondary School			32	8.5
	High School			67	17.8
	College			68	18.0
	University			49	13.0
	Income	2209.27	862.502		
Labor Contract(*n*=366)	Signing			171	45.4
	Not Signing			204	54.1

a. SD: standard deviation.
b. N: number

4.1 Results from Analysis on Job quality

IBM SPSS, version 20.0 was used to computing of job quality index. Before analyzing, this study examined the suitability of data for factor analysis. Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) and Bartlett's Test of Sphericity was used in this step. The former one specifies how small the partial correlations were relative to the original correlations, and should be greater than 0.60. The later one examined whether the variables were largely uncorrelated, and its significance of X^2 should less than 0.05. In this study, the value of KMO is 0.822 and the Bartlett X^2 value is significant at 0.05 level (X^2= 24708.80, df = 1,081, p= 0.000). The results indicates that the data is suitable for factor analysis.

The second step extracted and labeled factors. Firstly, this study used principal component analysis to extract factors. Following the Kaiser's criteria (eigenvalue > 1 rule)

and scree test (see Figure 1), four initial factors were extracted accounting for 70.8% of the total variance approximately. However, in the initial factor matrix, factor structure was difficult to understand because some variables have relatively high loading on over on factor. In order to present a clear factor structure, the initial factor matrix was rotated orthogonally by the method of varimax. The rotated factor matrix is showed in table 3, and the items loaded more than 0.60 on each factor can help label the factors.

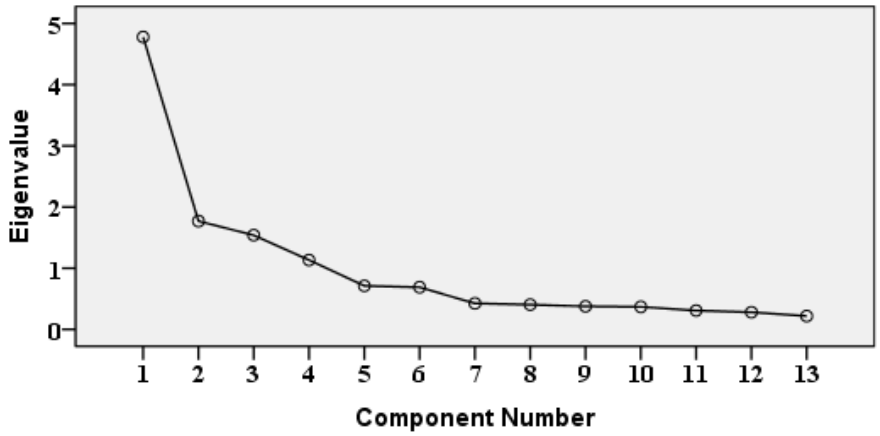

Figure 1.Scree Plot

Factor 1 is labeled external conditions, because it includes characteristics such as working environment, damaging of health and sanitary in workplace. The items loading on this factor explains 36.79% of the variance. The top item within the factor is ‘‘Degree of Health Damaging’’ with the factor loading 0.846.

Factor 2 is given the label satisfaction. There are three items that loads on this factor, and explains 13.60% of the variance. The top item within the factor is “Satisfaction with Income’’ (loading 0.814). Factor 2 includes characteristics as the satisfaction with some fundamental perspectives on a job.

Factor 3 is labeled job security, because the items included are the basic criterions to the quality of a given job in the labor market in China. The items loading on this factor explains 11.80% of the variance.

Factor 4 is labeled psychological working environment. There are two items that loads on this factor, and explains 8.64% of the variance. The top item within the factor is ‘‘relationship with co-workers’’ (loading 0.88). Factor 4 includes characteristics related to relationships. These items reinforce the factor labeling as psychological working environment.

Table 3.Rotated Component Matrix[a]

Facets	Items	Component			
		1	2	3	4
Physical Working Environment	Degree of comfort	**0.773**	0.291	0.202	0.194
	Degree of Health Damaging	**0.846**	0.086	0.039	0.113
	Sanitary Condition	**0.845**	0.102	0.193	0.040
Job Security and Flexibility	Number of Working Days	-0.229	0.527	-0.485	0.006
	Labor Contract	0.188	0.140	**0.829**	0.068
	Job Security	0.126	0.115	**0.869**	0.052
Psychological Working Environment	Relationship with Co-workers	0.034	0.061	0.076	**0.881**
	Relationship with Superiors	0.232	0.113	-0.040	**0.828**

Job Satisfaction	Satisfaction with Working Environment	0.502	0.460	0.196	0.411
	Satisfaction with Income	0.165	**0.814**	0.020	0.117
	Satisfaction with Job Security	0.339	**0.745**	0.209	0.109
	Satisfaction with Career Development	0.386	**0.681**	0.081	0.277
Income	Monthly Income	-0.030	0.539	0.421	-0.207

a. Rotation converged in 6 iterations.

The third step computed the job quality index (JQI). Since four factor scores of each respondent had been calculated in the second step, JQI could have been computed simply by adding them together. However, this approach ignored the different importance of factors when they explained the total variance of the whole sample. Table 4 presents the percentage of explained variance by different factors after rotation. According to this table, the first factor explains the most percentage of variance (36.787%) while the fourth factor explains the fewest (8.637%), suggesting that the first factor is more crucial one to explain the change of variance among the four factors.

Table 4.Explained Variance by Factors

Factors	Eigenvalues	of Variance %	Cumulative %
1	4.782	36.787	36.787
2	1.768	13.598	50.385
3	1.534	11.799	62.184
4	1.123	8.637	70.821

In order to produce a more accurate result, a variance-weighted approach was used to computing JQI. Through this approach, each factor score was weighted firstly by multiplying the percentage of the variance explained by this factor, and then added together. Formula 1 shows the computing process, and the coefficient before each factor is the variance explained by this factor (see the second column of table 2). The advantage of this approach is that it facilitates comparisons among respondents more objectively. If we consider factor scores as coefficients and the percentages of explained variance as variables, formula 1 represents the distance between the observed value (JQI) and the mean of sample, since variance descripts the distance between an observed value and the mean of sample. By this approach, all the respondents' job quality is ranked and compared more directly.

$$JQI = 0.36787F_1 + 0.13598F_2 + 0.11799F_3 + 0.08637F_4 \quad (1)$$

Figure 2 shows the distribution of JQI (zero point represented the mean of sample). According to the histogram above, job quality of the working poor is divided approximately into three clusters. In order to accurate the three clusters, a cluster analysis was performed. Table 4 presents the final cluster centers of the three clusters. The three clusters are labeled as Low Job Quality Group (finally cluster center locates at -0.64), Middle Job Quality Group (finally cluster center locates at -0.12), and High Job Quality Group (finally cluster center locates at 0.34). After the One-way ANOVA's examining, there is a significant amount of between-team variation among each of the clusters (F=1274.35, p=0.000).

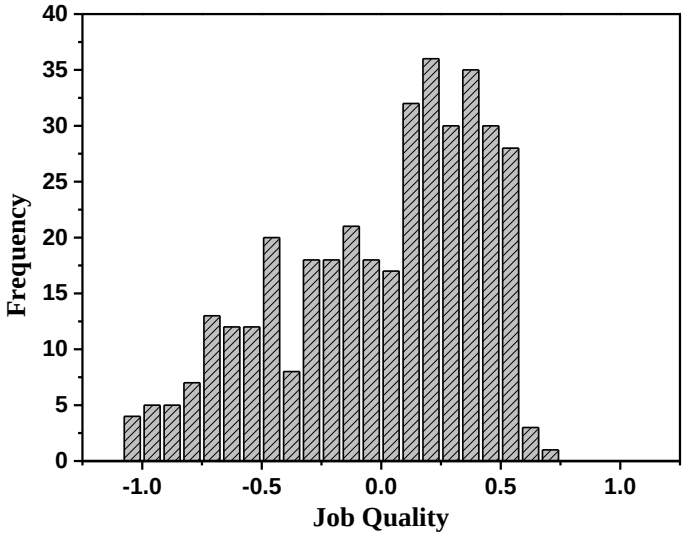

Figure 2.Histogram of Job Quality

Low job quality group. Respondents from this group (*n*=82) are mostly male (70.7%) agricultural residents (68.3%) aged from 20 to 30 (65.9%). Most of them graduate from middle schools (58.5%). The majority of the respondents are part-time manual workers without any formal work units (57.3%). 75.6% of them work in adverse working conditions and 85.4% of them work without any labor contracts or working securities. 58.5% of the respondents work over 9 hours a day ,and 35.4% of them work more than 6 days (including 6) a week. Their average monthly income is CNY 2003.29, which is 57.55% of the average monthly income (CNY 3481.17) in Harbin in 2012. 39% of the respondents get middle ranking on relationship with co-workers and supervisors, and their satisfaction on their job quality was lower than the average.

Middle job quality group. In this group (*n*=104), over half of the respondents are female (53.8%) nonagricultural residents (51.9%) aged from 22 to 28 (52.0%). Most of them graduate from middle schools (30.8%). Meanwhile, the proportion of respondents with college degree or above increases clearly (32.0%). The majority of the respondents is part-time employees from self-employed firms or small companies (31.7%). The main types of their works are logistical service (11.5%), selling (9.6%) and blue-collar workers (9.6%). 51.9% of them work in a better environment compared with the low quality group. 64.4% of them work without any labor contracts. The average working hours in this group was 9.13 hours a day, and the working days are 5.92 days a week. The average monthly income of this group was CNY 2071.02, which was a little more than the first group, and still far below than the average monthly income in Harbin. 47.1% of the respondents' relationship with co-workers and supervisors are better than the average, and their satisfaction on their job quality is just on the average.

High Job Quality Group. Compared with low and middle job quality groups, high job quality group presents significant differences. More than half of the respondents from high job quality group (*n*=187) are male (52.9%) nonagricultural residents (56.7%) aged from 22 to 28 (64.3%). Most of them graduate from colleges and universities (40.6%). The majority of this group is contract employees from state-owned enterprises (44.9%) and private enterprises (35.8%). The main types of their employment are skilled workers (27.8%), office clerks (12.3%), and sales personnel (10.7%). 91.4% of the respondents work in a more comfortable and relax environment. 66.3% of them sign employee contracts.75.4% of the respondents work 8 hours a day ,and 46.5% of them work 5 days a week. Their average monthly incomes are CNY 2354.22, which is higher than the two

groups above, and a one-way ANOVA identifies the difference among these three groups are significant (F=6.509, p=0.002). Most of the respondents (89.8%) have a harmonious relationship with co-workers and supervisors, and their satisfaction on their job quality is higher than the other two groups.

4.2 Results from Analysis on Factors

Multiple regression was used to identify predictors of job quality among the working poor in the full sample, and Table 5 shows the whole adjusting process. In the first step, the variable high school is dropped from the model because of a relatively high significant level (p=0.712). In the second step, the variable age is dropped with the same reason (p=0.593). After the two variables are excluded from the regression model, the rest of the variables are all with significant levels less than 0.05.

Table 5.Model Adjusting[a]

Model		Unstandardized Coefficients		Sig.
		B	Std. Error	
Model 1	Constant	0.074	0.090	0.407
	Age	-0.001	0.002	0.637
	Technical Secondary School [b]	0.201	0.081	0.013
	High School [b]	0.022	0.059	0.712
	College [b]	0.130	0.060	0.031
	University [b]	0.264	0.067	0.000
	Registration (Urban=1)	-0.149	0.042	0.000
	Gender (male=1)	-0.079	0.042	0.060
Model 2	Constant	0.086	0.084	0.306
	Age	-0.001	0.002	0.593
	Technical Secondary School [b]	0.194	0.078	0.014
	College [b]	0.123	0.057	0.031
	University [b]	0.257	0.064	0.000
	Registration (Urban=1)	-0.150	0.042	0.000
	Gender (male=1)	-0.080	0.041	0.054
Model 3	Constant	0.048	0.044	0.276
	Technical Secondary School [b]	0.199	0.078	0.011
	College [b]	0.129	0.056	0.021
	University [b]	0.263	0.063	0.000
	Hukou (Urban=1)	-0.151	0.042	0.000
	Gender (male=1)	-0.081	0.041	0.051

a. Dependent Variable: Job Quality

b. Reference Group: People with Educational Level of Primary School or Middle School

Table.6 presents the associations between predictors and dependent variable. First, the JQI of respondents who graduate from primary schools or middle schools are 19.9% lower than those who graduate from technical secondary schools, and 12.9% lower than those who graduate from colleges, and 26.3% lower than those who graduate from universities, indicating that the respondents with lower educational levels are more likely to have jobs with low-quality. Second, the JQI of respondents with agricultural hukou are 15.1% lower than those who with nonagricultural hukou. This result suggested that hukou system had significant effect on job quality, and the respondents with nonagricultural hukou are more likely to have high-quality jobs. Third, the JQI of male respondents are 8.1% higher than female one's, suggesting that in the whole sample, female respondents may be more vulnerable to low-quality jobs. The coefficients of the multiple regression analysis confirms a partial positive association between educational level and job quality

(p<0.05; p<0.05; p<0.01), and a negative association between job quality and household registration (p<0.01) and gender (p<0.05).

Table. 6 Coefficients [a]

Model	Unstandardized Coefficients		Standardized Coefficients
	B	Std. Error	Beta
Constant	0.048	0.044	---
Technical Secondary School [b]	0.199*	0.078	0.129
College [b]	0.129*	0.056	0.119
University [b]	0.263**	0.063	0.212
Hukou (agricultural=1)	-0.151**	0.042	-0.180
Gender (male=1)	-0.081*	0.041	-0.096

a. Dependent Variable: Job Quality
b. Reference Group: People graduated from Primary School or Middle School
* p < 0. 05; * * p < 0. 01

5. Discussion

Our study generally shows the job quality of the working poor in Harbin. From an overall perspective, the majority of the working poor works in a relatively comfortable environment. Their relationship with co-workers and supervisors, and satisfaction on job quality are generally higher than we expected. However, their jobs with lower physical quality is a urgent issues to tackle.

5.1 Group Differences

The job quality among groups is wildly different in this study. Low job quality group presents some characteristics of the poor class such as low income, adverse physical working environment, and informal employment. Due to those disadvantage, people in this group are living in a poor life condition which is very close to the poor. Hence we consider the low job quality group as the pre-poor class. Compared with the low job quality group, the middle job quality group get better working position and working environment. However, low income and informal employment are two disadvantages, and they prevent the working poor in this group from improving their job quality and living conditions by themselves. Meanwhile, the high job quality presents significant differences. Their characteristics of job quality point to the normal level of the job quality in the modern Chinese society, which results to the invisibility of this group in poverty research. However, considered of their educational level and job duties, there is a narrow space for their career development. It is difficult to them to enhance their job quality.

5.2 Job Quality and Associated Factors

From the study results, educational background, hukou and gender are examined to be associated with job quality of the working poor.

After comparing the job quality among different educational background, we find respondents who graduate from universities or technical secondary school keep a relatively higher job quality. This finding demonstrates the importance of application-type education. Nowadays, most of the parents in China believe that to hold a university degree is the only way to get high-quality jobs. However, university education emphasizes more on academic and theoretical knowledge, and also requires a long-term

and costly process. In contrast to university, application-type education such as technical secondary school is short-term, inexpensive and close to daily life. Most of the graduates from technical secondary school are around 19. They have more time to adjust themselves to adapt to the society, and this process of adaption also remedies their limitation on education. Therefore, application-type education is an efficient way to prevent from working poor.

Our study also demonstrates that the job quality of male respondents is lower than female ones. Compared their job quality, we find female concentrate more on physical working environment than male do, and female respondents are more likely to choose jobs with more comfortable physical working environment. Therefore, we believe it is working environment that possibly narrowed down female's range of choice. Further research was needed on this issue.

Findings from the multiple regression also demonstrate an evidently association between hukou and job quality. Respondents with nonagricultural hukou are with higher-quality jobs. The result is beyond our expectation because the household registration reform is undertaken for years. Therefore, we examined another probably relevant factor: educational level. The result shows a significant difference of educational level between different household registrations. The educational levels of residents with nonagricultural hukou are higher than those with agricultural. 40.4% of the respondents with nonagricultural hukou get college degree or above, while 22.3% of the respondents with agricultural hukou do. 11.5% of the respondents with nonagricultural hukou graduate from technical secondary school, while only 6.0% of the respondents with agricultural hukou do. From empiricist perspective, low educational level prevents respondents from equally and fully participating in the labor market. Regardless of household registration, fewer of the people with low educational background are employed in positions that are linked to high income, better social benefits, and housing subsidies.

6. Limitations

This is only an initial attempt to identify some of the basic characteristics of working poor. In spite of all the numbers we've presented, it is clear that much more remains to be learned about this group. Firstly, the limitations of our statistical material have kept us from asking anything beyond the most basic questions on a national level. Secondly, how the factors affect the job quality of the working poor are needed to be discussed. Thirdly, it is evident that various social estrangement factors are associated with the working poor's job quality. Structural and institutional factors are needed in further research.

Acknowledgements

This research is supported by MOE (Ministry of Education in China) Project of Humanities and Social Sciences "new underclass in urban society project", (Project No.10YJA840050)

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