

Income Inequality: Objective Measurement and Subjective Evaluation **— An Empirical Research Based on Micro-data**

CAI Chao^{1,3}, LI Li¹, XU Qi-fa²

¹ School of Statistics, Shandong Institute of Business and Technology, Yantai, China;

² School of Management, Hefei University of Technology, Hefei, China

³ Corresponding author: CAI Chao, e-mail: caichao622@sohu.com

Abstract

Subjective evaluation of income inequality directly influences the social harmony and stability; it is one of the important standards to evaluate the moderation of income inequality. Using data of CGSS and Multiple Ordered Probit Model, we had an empirical analysis on how objective income inequality influence people's subjective evaluation of income inequality. Firstly, objective inequality has a significant positive impact on their subjective evaluation of the inequality, which enables people have a rational judgment and knowledge of the inequality at their locations. Secondly, compared to people without higher education, higher educated people tend to underestimate the severity of income inequality. Thirdly, people with higher income satisfaction also tend to underestimate the severity of the inequality.

Keywords: Income Inequality; Objective Measurement; Subjective Evaluation; Income Satisfaction

1.Introduction

The 18th National Congress of the Communist Party of China shows that “the economy has developed steadily and rapidly”, Gross domestic product (GDP) in 2011 reached 47 trillion, ranking second in the world. But in the process of rapid economic development, Chinese people's income inequality is widening; and the Gini coefficient was 0.418 in 2000, which is over the international warning line, and rose to 0.479 in 2005, and 0.482 in 2009 (Yin et al, 2011). This indicates that while promoting economic development, China is also adjusting the pattern of distribution of benefits among the members of the society. Income inequality can be caused by many reasons, such as the progress of science and technology (Mosher, 2007), inequality of opportunity (corruption and monopoly) (Svallfors, 1993; Chen, 1997; Guo et al, 2003). The expansion of income inequality has a negative impact on economic development, and thereby affects social stability (Rodriguez, 2000; World Bank, 2006).

In general, the measuring indexes of income inequality (such as the Gini coefficient) is an objective measure of the relative degree of dispersion of people's income, and the objective income inequality can only give a quantitative information of income inequality. Merely based on the size of the objective income inequality, it is difficult to get to a subjective conclusion of whether distribution of income is fair and reasonable. So the measurement of the income inequality needs to be injected with subjective judgment on the basis of the quantitative information, so as to effectively judge whether the distribution of income is fair and reasonable (Gijssbert, 2002; Hadler, 2005; Guo et al, 2006). In recent years, the subjective evaluation of income inequality has quickly become an active research area. For example, some scholars have explored the subjective evaluation of income inequality in developed countries (the United States and Western Europe), and have found that psychological bearing of people's income inequality has become an important factor for the government to form the income distribution policy (Gilens, 1999; Alesina et al, 2004; Bartels, 2008; Xu et al, 2010; Evans et al, 2010). Some scholars have explored people's feelings and reactions on the changed income distribution in transitional economies (such as China and Eastern Europe), and have found that the subjective evaluation on income inequality is an important way to effectively judge whether distribution of income is fair and reasonable, and can provide reference for the implementation of the government's income distribution policy (Guo et al, 2006; Liu et al, 2007; Martin, 2008; Li, 2008; Fu, 2010).

The existing literatures have discussed the subjective evaluation of income inequality, but empirical study on how objective income inequality influence people's subjective evaluation of income inequality is still in want, and few literatures had an empirical analysis on China. The related study only exist in the literature based on foreign people, Xu et al (2010) used the 2004 ANES (American National Election Survey), and found that in the US the objective inequality had significant positive effect on their subjective evaluation of inequality.

Using data of CGSS and Multiple Ordered Probit Model, we had an empirical analysis on how objective income inequality influence people's subjective evaluation of income inequality in China. In the analysis, three situations have been taken into consideration. First, we discuss interaction between objective income inequality and education and its influence on the subjective evaluation of income inequality. Second, we have controlled the possible impact of people's personal characteristics. Third, to guarantee the soundness of our findings, we re-estimate our models using other objective income inequality, such as Theil index and income shares of 50% affluent population. This study is not only a supplement for the existing literatures, it can also provide a scientific basis for means of settlement for judging the income inequality.

2. Hypotheses

The nature of subjective evaluation of income inequality is an analysis of the current income distribution based on the income-distribution-related information the people have at hand; it reflects a subjective judgment of the people of the income distribution status. The people's subjective judgments are influenced by neighbors, colleagues, friends and the news media. Studies have shown that through conversations with neighbors, colleagues and friends, news media reported, people can have a rational judgment on income inequality (Kenworthy et al, 2008; Xu et al, 2010). In other words, individuals who reside in the regions with high levels of objective income inequality will be more likely to perceive a severer income inequality than those who reside in the regions with lower levels of income inequality. Thus, we make the following hypothesis:

H1: Objective income inequality influence people's subjective evaluation of income inequality, people can have a rational judgment on the objective income inequality existing in their region. The larger the objective income inequality is, the severer the subjective evaluation of income inequality will be.

Of course, not all people in the same region will have the same subjective reaction on income inequality. The study has found that people's the subjective evaluation of income inequality is related with their level of education (Kenworthy et al, 2008; Bartels, 2008). People's level of education is different, their judgment and understanding of things is different. Well-educated people generally have higher income levels and socio-economic status, and can more likely to accept the income inequality. In other words, the interaction between objective income inequality and the level of education will reduce the severity of the subjective evaluation on income inequality. Thus, we make the following hypothesis:

H2: The interaction between objective income inequality and the level of education has significant negative effect on the subjective evaluation of income inequality. In other words, compared to people with lower education, higher educated people tend to underestimate the severity of income inequality in their region.

The subjective evaluation of income inequality is a subjective judgment of the people on the income distribution status, it is affected by individual values, personality and other psychological factors, and the psychological factors of people cannot be sufficiently measured. Income satisfaction is a subjective evaluation of the objective income, which is also affected by various kinds of psychological factors. This paper considers these psychological factors mainly through the intermediary role of income satisfaction to explain people's subjective evaluation of income inequality. The people with high income satisfaction are mainly influenced by psychological factors rather than by just objective income inequality. So they are able to withstand greater

objective income inequality. The people with lower income satisfaction are more sensitive to objective income inequality, and withstand smaller objective income inequality. Thus, we make the following hypothesis:

H3: The income satisfaction has a significant impact on the subjective evaluation of income inequality, people with higher income satisfaction are able to withstand greater objective income inequality, and also tend to underestimate the severity of income inequality.

3. Data Selection and Statistical Description

The micro data used in his paper are 2007 people sampling survey data from CGSS (CGSS2008). This data is a nationwide, large sampling survey data made by the department of sociology of Renmin University of China, using the hierarchical four-stage-inequality-probability sampling method, investigating the individual for a sample unit. 6000 sample units in 28 provinces and cities across the country were investigated. The content includes personal basic situation, the education experience, professional experience and other abundant information, and more importantly, the data provides the respondents' attitudes and opinions about the relevant information, providing a great convenience for the research of the subjective evaluation on income inequality. Removing those sample units with incomplete personal information, they get a total of 2630 valid samples in 28 provinces, municipalities and autonomous regions, and based on this, made the selection and calculation on the subjective evaluation of the income inequality, objective income inequality, income satisfaction and other control variables.

Firstly, we select the people's subjective evaluation index on income inequality. We use the following questions in the questionnaire: "Do you agree that income inequality in China is too serious?". Assignment for 1-5 integers, corresponding to the people's answers like "strongly disagree", "disagree", "general", "agree", "strongly agree". In terms of data distribution, the inhabitants that feel "agree" take the highest proportion, accounting for 53.1%; followed by "strongly agree", accounting for 39.0%; The following are "general", "disagree" and "strongly disagree", accounted for 4.9%, 2.7% and 0.3%. Overall, the majority of respondents believe that income inequality is bigger. See figure 1.

Secondly, we calculate the objective income inequality index¹. To calculate Gini coefficient on the county level according to the people's annual income so as to measure the objective income inequality². We use a simplified formula proposed by Anand (1983)

$$Gini = \frac{2}{n^2 \mu} \sum_i^n iy_i - \frac{n+1}{n} \tag{1}$$

to calculate each county separately, we have the gini coefficient of 100 districts and counties. In (1) $\{y_i\}$ is an ordered sample composed of microdata for a sample size n ,

$\{y_i\}$ satisfies $y_1 \leq y_2 \leq \dots \leq y_n$, and $\mu = \frac{1}{n} \sum_i^n y_i$ is sample mean. In addition, we use the

two objective income inequality index, such as Theil index and 50% of the affluent population share of income to check the soundness. The statistical results Table 1 show that county average gini coefficient is 0.43, and there are 52 counties that are greater than the average, accounting for 52% of the sample counties, which indicates that China's income inequality problem is very serious, and China's rapid economic growth has not completely be shared by all the social strata. Theil index and 50% rich population income share also confirmed this point.

Thirdly, select the people's income satisfaction index. Use the questionnaire question: "do you think your job and income is?" , optional for "much less than that I

¹ To keep the sample size, only delete the units with income missing. the objective income inequality was calculated with 4904 incomes.

² The annual incomes include not only salary income but also non-salary income.

deserve”, “less than that I deserve”, “equal to that I deserve”, “more than that I deserve”, “much more than that I deserve”, “never work”, “unable to choose”. This paper holds that the problem in a certain extent reflects people’s subjective evaluation for their income status. Delete the samples that answered “never work”, “unable to choose”, and put “much less than that I deserve” into “strongly dissatisfaction”, and “less than that I deserve” into “dissatisfaction”, “equal to that I deserve” into “general”, “more than that I deserved” into “satisfaction”, “much more than that I deserve” into “strongly satisfaction”, and respectively assignment for 1-5 integer. Figure 2 and table 1 shows: income satisfaction is between “dissatisfaction” and “general”. People’s income dissatisfaction rate is much higher than satisfaction rate, 59.7% of respondents are relatively dissatisfied with their own personal income (among them, strongly dissatisfaction 12.0%, dissatisfaction 47.7%), and 37.1% said general, 3.2% said agree (including, satisfaction 2.8%, strongly satisfaction 0.4%). This shows that the people’s evaluation of the current situation for income is generally very low, and this may be due to the people’s dissatisfaction toward life, and the large pressure caused by the real life. See figure 2.

Fourth, in addition to the objective income inequality and income satisfaction, factors like people's gender, political affiliation, registered permanent residence, region, education, ownership, occupation, age may also affect the subjective evaluation of income inequality (Glejser et al, 1977; LiuYiDeng, 2007; Martin, 2008; Wong, etc., 2009; Xu et al., 2010), so this paper selects the corresponding control variables, and for the specific selection process please see table 1.

FIGURE 1
Subjective Evaluation of Income Inequality

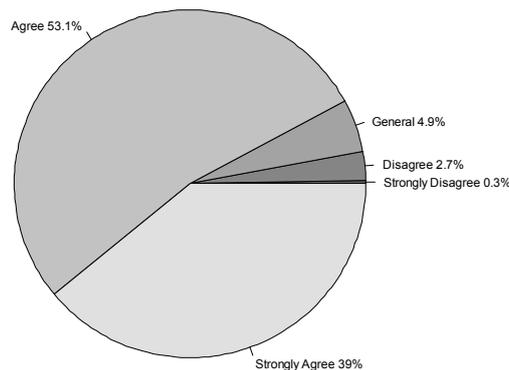


FIGURE 2
Income Satisfaction

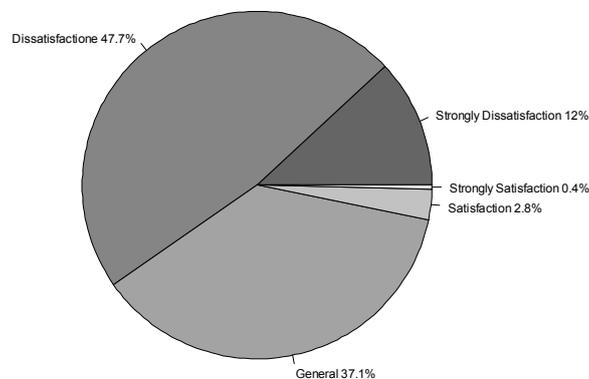


TABLE 1
Description of Variables

Variable	property		Description			
	category	value	Mean	Standard Deviation	Minimum	Maximum
Subjective evaluation of income inequality	Order variables	ranging from 1 (strongly disagree) to 5 (strongly agree)	4.28	0.707	1	5
Gini coefficient	Continuous variables	Continuous values	0.429	0.082	0.244	0.680
Theil index	Continuous variables	Continuous values	0.375	0.153	0.117	0.793
Income shares of 50% affluent population	Continuous variables	Continuous values	0.790	0.051	0.683	0.898
Income satisfaction	Order variables	ranging from 1 (strongly dissatisfaction) to 5 (strongly satisfaction)	2.32	0.732	1	5
Gender	Categorical variables	1=male;0=female	0.49	0.500	0	1
Political affiliation	Categorical variables	1=communist; 0=otherwise	0.12	0.323	0	1
Registered permanent residence	Categorical variables	1= respondent resides in urban community; 0= otherwise	0.57	0.495	0	1
Region	Categorical variables	1= eastern; 0=otherwise	0.38	0.486	0	1
Education	Categorical variables	1=higher education; 0= otherwise	0.15	0.358	0	1
Ownership	Categorical variables	1= State-owned units; 0= otherwise	0.31	0.461	0	1
Occupation	Categorical variables	1=White-collar; 0= otherwise	0.34	0.474	0	1
Age	Continuous variables	Continuous values	42.25	13.615	17	86

4. Results

4.1 Methods

Considering the multi-valued discrete nature of the dependent variable, we use ordered probit model¹, these models are based on a latent regression of the form

$$y_i^* = X_i\beta + \varepsilon_i \tag{2}$$

where y_i^* is resident's subjective evaluation of income inequality, and y_i^* is unobserved. X_i is independent variables vector. β is coefficient estimates vector and $\varepsilon_i \sim N(0, \sigma_\varepsilon^2)$ correspond to error terms with independent and identical distribution. y_i is actual observations of resident's subjective evaluation of income inequality, and it has five categories: strongly disagree, disagree, general, agree and strongly agree, the

¹ The result of ordered logit regression model is completely consistent with this.

corresponding values are $y_i = 1, y_i = 2, \dots, y_i = 5$, which have sequential relationship: $(y_i = 1) < (y_i = 2) < \dots < (y_i = 5)$. Instead of y_i^* , only the following realizations are observed:

$$y_i = \begin{cases} 1 & \text{if } y_i^* \leq \mu_1 \\ 2 & \text{if } \mu_1 < y_i^* \leq \mu_2 \\ 3 & \text{if } \mu_2 < y_i^* \leq \mu_3 \\ 4 & \text{if } \mu_3 < y_i^* \leq \mu_4 \\ 5 & \text{if } \mu_4 < y_i^* \end{cases} \quad (3)$$

where the μ_j are cut-off points which need to be estimated together with the coefficients β .

Given the values of X_i , cumulative probability can be estimated by the following form:

$$P(y_i \leq j | X_i) = P(y_i^* \leq \mu_j) = P(X_i \beta + \varepsilon_i \leq \mu_j) = P(\varepsilon_i \leq \mu_j - X_i \beta) = \Phi(\mu_j - X_i \beta) \quad (4)$$

where $\Phi(\bullet)$ is the cumulative distribution function of standard normal distribution. by (4), we can calculate the effect of the independent variables on the selection probability of subjective evaluation of income inequality among the five states.

4.2 Empirical Analysis

In Table 2 we report the estimated results of the model. In the ordered probit model, corresponding to each value of the dependent variable, estimated coefficient signs of the independent variables are not always identical with their marginal effects. Therefore, in order to get independent variables' impact on subjective evaluation of income inequality more intuitively, we calculate and report the marginal effects of the independent variables. The results are shown in Table 3. The marginal effect of a continuous variable means the change of probability of subjective evaluation of income inequality caused by each unit change of the independent variable. The marginal effect of a dummy variable means the change of probability of subjective evaluation of income inequality when the value of the independent variable changes from 0 to 1.

In Model (1) of Table 2, we aim at testing hypothesis 1 and hypothesis 3, focusing on the impact of Gini coefficient and income satisfaction on people's subjective evaluation of income inequality. The main independent variables are Gini coefficient and income satisfaction, the control variables include people's gender, political affiliation, registered permanent residence, region, education, ownership, occupation and age. We find a positive effect of Gini coefficient on people's subjective evaluation of income inequality. For each unit the Gini Coefficient increases, the probabilities of selecting "strongly disagree", "disagree", "General" and "agree", which based on individuals' feel of greater income inequality, decreased by 0.5%, 3.2%, 4.5%, and 14.6%, and the probability of "strongly agree" increased by 22.8%. People who reside in areas with higher levels of income inequality are more likely to perceive (accurately) that income inequality has been on the rise, they can have a rational judgment of objective income inequality. This supports hypothesis 1.

People with high income satisfaction tend to underestimate the severity of the income inequality. When people's income satisfaction increased one unit, the probabilities of "strongly disagree", "disagree", "General" and "agree" that individuals feel greater of income inequality increased by 0.1%、0.7%、1.0% and 3.2%, and the probability of "strongly agree" decreased by 5.0%. This indicates that people with high income satisfaction are able to withstand greater objective income inequality, thus, Hypothesis 3 is supported. The conclusion is consistent with Liu(2007) and Fu(2010).

TABLE 2
Ordered Probit Estimates for Models

Variable	Model(1)		Model(2)	
	coefficient	sd	coefficient	sd
Gini coefficient	0.620**	0.295	0.796**	0.323
Gini coefficient ×education	—	—	-0.565*	0.292
Income satisfaction	-0.129***	0.031	-0.129***	0.031
Gender	0.110**	0.045	0.112**	0.045
Political affiliation	-0.135*	0.077	-0.149*	0.77
Registered permanent residence	0.094*	0.055	0.103*	0.055
Region	-0.090*	0.048	-0.085*	0.048
Education	-0.013	0.072	0.216	0.327
Ownership	0.030	0.059	0.031	0.059
Occupation	-0.011	0.054	-0.010	0.054
Age	-0.002	0.002	-0.002	0.002
Age squared	0.000	0.002	0.000	0.002

***prob<0.01; **prob<0.05; *prob<0.1.

TABLE 3
Marginal Effect of Independent Variable

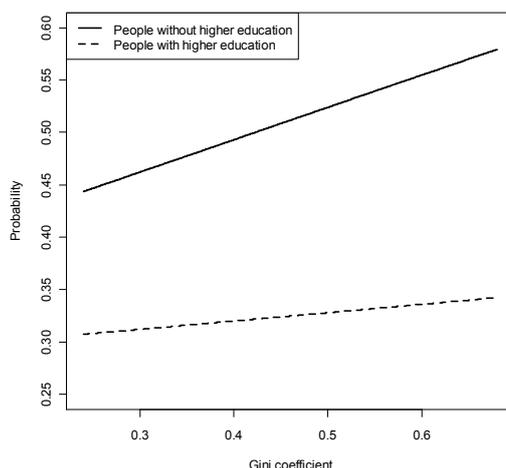
Variable	strongly disagree	disagree	general	agree	strongly agree
Gini coefficient	-0.005	-0.032	-0.045	-0.146	0.228
Income satisfaction	0.001	0.007	0.010	0.032	-0.050
Gender	-0.001	-0.006	-0.009	-0.028	0.043
Party membership	0.001	0.007	0.011	0.039	-0.058

Gender has significant positive effect on subjective evaluation of income inequality, the male's evaluation of the severity of the income inequality is relatively high. Compared with female, the probabilities of "strongly disagree", "disagree", "General" and "agree" that male feel greater income inequality decrease by 0.1%, 0.6%, 0.6% and 2.8%, and the probability of "strongly agree" increase by 4.3%. This may be due to the traditional male's role of supporting the family and certain socio-economic status, which makes men's stress of work and life greater and their tolerance of income inequality poorer(Martin,2008). Political affiliation has significant negative effect on subjective evaluation of income inequality, non-communists' evaluations of the severity of income inequality is relatively high. Compared with non-communists, the probabilities of "strongly disagree", "disagree", "General" and "agree" that communists feel greater income inequality increase by 0.1%、0.7%、1.1% and 3.9%, and the probability of "strongly agree" decreases by 4.3%. China requires strict procedures in selection of a communist party member, political affiliation to a certain extent represents social capital, with higher economic and social status (Knight et al., 2002; Li et al., 2008); communists are able to withstand greater objective income inequality, and also tend to underestimate the severity of the income inequality. Registered permanent residence has significant positive effect on subjective evaluation of income inequality, people who live in urban areas think that the income inequality is severe. Compared with rural people, the probabilities of "strongly disagree", "disagree", "General" and "agree" that urban people feel greater of income inequality decrease by 0.1%、0.5%、0.7% and 2.4%, and the probability of "strongly agree" increase by 3.8%. This may be due to the unique urban-rural dual structure in China, income inequality of urban area is higher than rural area (Xu et al, 2011), urban people can have a rational judgment of objective income inequality. Region has significant negative effect on subjective evaluation of income inequality, people who live in Mid-west regions evaluate the severity of income inequality relatively high. Compared with Mid-west regions, the probabilities of "strongly disagree", "disagree", "General" and "agree" that people in Eastern regions feel greater of income inequality increase

by 0.1%、0.5%、0.7% and 2.3%, and the probability of "strongly agree" decreases by 3.5%. People’s conceptions differ significantly due to their social environment, living environment and knowledge background. Other independent variables have no significant effect on subjective evaluation of income inequality

How do the effects of objective income inequality vary across different individual-level attributes? Compared with model (1), We introduce a cross-product terms: Gini coefficient \times education in Model (2) to test hypothesis 2, namely, whether the interaction between objective income inequality and individuals’ education has significant effect on subjective evaluation of income inequality. Results in Table 2 shows that, the coefficient of objective income inequality is positive and statistically significant. Moreover, the coefficient of the cross-product term is negative and statistically significant. This indicates that, compared to people without higher education, higher educated people tend to underestimate the severity of the income inequality. Hence it appears that individuals without higher education are more sensitive to income inequality in their residence and hence are more likely to translate objective income inequality into their subjective evaluation of income inequality.

FIGURE 3
Predicted Probabilities that Subjective Evaluation of Income Inequality Has Become “Strongly Agree”



To illustrate how interaction between objective income inequality and education impacts subjective evaluation of income inequality, in Figure 3 we simulated the probabilities of “strongly agree” for people with higher education and people without higher education. In simulation, the independent variables values are as follows: Gini coefficient takes values at interval of 0.0001 from 0.24 to 0.68 ; education takes values of 0 and 1, respectively corresponding to people without higher education and people with higher education; other independent variables take their means. The simulation result is shown in Figure 3. There are two curves, where the solid line represents people without higher education, and the dotted line represents people with higher education. First, the dotted and solid lines are inclined to the upper right, this shows that there is a strong positive relationship between objective income inequality and subjective evaluation of income inequality, namely, the probability that people perceive larger income inequality increases with Gini coefficient. it also verified the Hypothesis 1. Second, the dotted line is always below the solid line, this shows that compared to people without higher education, higher educated people tend to underestimate the severity of the income inequality. The reason for this situation may be that people with higher education own higher income, even if the income inequality is much greater, their tolerance of income inequality are stronger, so their evaluation of the severity of income inequality is relatively lower, people without higher education have lower skills, greater employment pressure and relatively lower income,

compared with others, they feel their own socio-economic status lower, and are more likely to translate objective income inequality into their subjective evaluation of income inequality. Third, from left to right, the distance between the solid and dotted lines is widening. This shows that, as county Gini coefficient increases, the differences of probability of "strongly disagree" between people without higher education and people with higher education feel greater of income inequality gradually expand. People with higher education have more rational evaluation of the objective income inequality, but the evaluation of people without higher education are more emotional and intense. This proved hypothesis 2.

To check the robustness of our findings, we re-estimate our models using other objective income inequality, such as Theil index and income shares of 50% affluent population. In Table 4, we report ordered probit estimates. As one can readily see, the pattern of coefficients is similar to those reported in Table 2 that are based on Gini coefficient, namely, the Theil index and income shares of 50% affluent population has a positive effect on individuals' subjective evaluation of income inequality. Similarly, individuals residing in areas with high income inequality are more likely to perceive large income inequality than individuals residing in areas with small income inequality. Moreover, using the Theil index and income shares of 50% affluent population, we find the same interaction effects that we observed using the state Gini coefficient. This shows that the relationship between subjective evaluation of income inequality and objective income inequality which is measured by different objective income inequality indicators is consistent. Using Gini coefficient as the income inequality indicator to examine the subjective evaluation of income inequality is reliable, people can have a rational judgment of objective income inequality.

TABLE 4
Robustness Test Results

	Model(1)	Model(2)	Model(1)	Model(2)
Theil index	0.520***	0.602***	—	—
Theil index×education	—	-0.537*	—	—
income shares of 50% affluent population	—	—	1.004**	1.280**
income shares of 50% affluent population×education	—	—	—	-1.160*
Income satisfaction	-0.131***	-0.130***	-0.130***	-0.130***
Gender	0.110**	0.111**	0.111**	0.111**
Political affiliation	-0.136*	-0.134*	-0.135*	-0.132*
Registered permanent residence	0.109**	0.115**	0.096*	0.105*
Region	-0.090*	-0.077*	-0.085*	-0.080*
Education	-0.013	0.164	0.010	0.346
Ownership	0.034	0.036	0.031	0.033
Occupation	-0.013	-0.011	-0.010	-0.008
Age	-0.002	-0.002	-0.002	-0.002
Age squared	0.000	0.000	0.000	0.000

***prob<0.01; **prob<0.05; *prob<0.1.

5. Conclusions

Using Multiple Ordered Probit Model and the data of CGSS2008 , for the first time, this paper examines how objective income inequality influences people's subjective evaluation of income inequality , and how the interaction of objective income inequality and level of education influences people's subjective evaluation of income inequality. By introducing objective income inequality as an important explanatory variable of subjective evaluation of income inequality here, the existing research of people's subjective evaluation of income inequality is expanded(Guo et al, 2006; Liu et al, 2007; Martin,2008; Li, 2008; Fu, 2010).

The empirical results show that: Firstly, objective inequality has significant

positive effect on their subjective evaluation of inequality. Specifically, people can have a rational judgment of inequality, namely, people feel the severity of income inequality higher when objective inequality continues to expand. So Nowadays, in order to maintain long-term social stability, people's subjective tolerance should be fully considered, social justice and equity issues should be highly valued, the state macro-regulation system should be further strengthened, a series of problems such as the widening objective inequality should be solved as soon as possible.

Secondly, compared to people without higher education, higher educated people tend to underestimate the severity of income inequality. People without higher education are more sensitive to objective inequality. So in order to promote the harmonious development of society, it is important to pay particular attention to those low-level educated with a competitive disadvantage in the process of reform, to concern about their basic living and basic development needs, and to change their living conditions.

Thirdly, income satisfaction has a significant negative impact on subjective evaluation of the income inequality. namely, people with high income satisfaction tend to underestimate the severity of income inequality. So the income distribution reform program should be laid out as soon as possible, to leave the wealth with the people, improve people's income satisfaction, reduce the people's subjective feelings of income inequality, and avoid the adding of the subjective evaluation on the basis of existing higher objective income inequality.

This work is supported by FANEDD(200982), Fundamental Research Funds for the Central Universities(2011HGRJ0006), Humanities and Social Sciences Youth Fund of Ministry of Education (11YJC910003), National Statistics Research Project (2012LZ041).

References

- Alesina A., Glaeser E. L.. (2004) *Fighting Poverty in the US and Europe: A World of Difference*, Oxford: Oxford University Press.
- Anand S. (1983) *Inequality and Poverty in Malaysia Measurement and Decomposition*, New York: Oxford University Press.
- Bartels Larry M.. (2008) *Unequal Democracy: The Political Economy of the New Gilded Age*, Princeton, NJ: Princeton University Press.
- Chen Zongsheng. (1997) "China's Urban People' Income Distribution, Trends and Influencing Factors," *Economic Research Journal*, 3, 21-31.
- Evans M. D. R., Kelley J., Peoples C. D..(2010) "Justifications of Inequality: The Normative Basis of Pay Differentials in 31 Nations," *Social Science Quarterly*, 91, 1405-1431.
- Fu Gan. (2010) "Measurement of Subjective Gini Coefficient and Warning Value," *Statistics and Consulting*, 5, 20-21.
- Gijsberts M.. (2002) "The legitimation of income inequality in state-socialist and market societies," *Acta Sociologica*, 45, 269-285.
- GUO Ping,LI Hui. (2006) "The Analysis of Compatibility between Gini Index and Value Judgment in the Income Distribution Assessment," *The Theory and Practice of Finance and Economics*, 27, 22-27.
- Hadler M. (2005) "Why do people accept different income ratios?," *Acta Sociologica*, 48, 131-154.
- Gilens M. (1999) *Why Americans Hate Welfare: Race, Media, and the Politics of Antipoverty Policy*, Chicago, University of Chicago Press.
- Kenworthy L., McCall L. (2008) "Inequality, public opinion and redistribution," *Socio-Economic Review*, 6, 35-68.
- Knight, J. and L. Yueh. (2002) *The Role of Social Capital in the Labor Market in*

- China, oxford University, Department of Economics Discussion Paper.
- Li Huarong. (2008) "Empirical Study on the Farmers' Subjective Endurance of Income Gaps in Shanxi Province," *Journal of Shanxi Agricultural University(Social Science Edition)*, 7, 561-565.
- Li Shuang, Lu Ming, Zuoteng Hong. (2008) "The Value of the Powerful: Whether Party Membership and the Return of Social Networks is Different in Different Ownership," *World Economic Papers*, 6, 23-39.
- Liu Yi, Cheng Hui. (2007) "Empirical Study on the Residents' Income Differences and Psychological Endurance," *Social Sciences in Guangdong*, 6, 189-194.
- Mosher J. S..(2007) "US Wage Inequality, Technological Change, and Decline in Union Power," *Politics & Society*, 35, 225-264.
- Martin K. W.. (2008) "Popular Attitudes toward Distributive Injustice: Beijing and Warsaw Compared," *Journal of Chinese Political Science*, 13, 29-51.
- Rodriguez C. B.. (2000) "An Empirical Test of The Institutionalist View on Income Inequality: Economic Growth within the United States," *American Journal of Economics and Sociology*, 59, 303-313.
- Svallfors S.. (1993) "Dimensions of Inequality: a Comparison of Attitudes in Sweden and Britain," *European Sociological Review*, 9, 267-287.
- World Bank. (2005) *World Development Report 2006:Equity and Development*, New York, Oxford University Press.
- Wong T. K. Y., Wan PS, Law K. W. K.. (2009) "Public Perceptions of Income Inequality in Hong Kong: Trends, Causes and Implications," *Journal of Contemporary China*, 18, 657-673.
- Xu Yingmei, Zhang Xuexin. (2011) "Estimation of Gini Coefficient Warning Level of China," *Statistical Research*, 28, 80-83.
- Xu Ping, Garand James C.. (2010) "Economic Context and Americans' Perceptions of Income Inequality," *Social Science Quarterly*, 91, 1221-1241.
- Yin Hongpan, Liu Shuling. (2011) "The Trend of China's Gini Coefficient: A Calculation by Subdividing People Groups of 2000-2009's National Statistic Data," *Chinese Journal of Population Science*, 4, 11-20.