

A Study on the Influence of Socioeconomic Status on Residents' Subjective Well-being Based on an Empirical Analysis of CGSS2015 Data

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Abstract: Residents' happiness is an important indicator of a country's development and a key issue of social concern. In this paper, we found that residents' socioeconomic status has a significant positive effect on subjective well-being based on the 2015 China General Social Survey data, regression using ordinary least squares (OLS) model and ordered probit model. In addition, marital status, social equity, and other aspects also have an impact on subjective well-being. Based on this, measures such as increasing residents' income, increasing investment in education, and increasing social services to improve residents' subjective socioeconomic status are proposed to improve people's livelihood and play the role of economic and social status in improving residents' subjective well-being.

Keywords: Socioeconomic status; Subjective well-being; OLS model; Ordered probit model

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1. Introduction

Happiness is the essence of people's pursuit, and the discussion about happiness has been attracting much attention. With the development of China's economy and society, the pace of people's happiness growth does not keep up with the speed of economic growth, and many scholars have begun to pay attention to the research on the issue of residents' happiness. At this stage, scholars in China have studied residents' happiness from different perspectives, such as sociology and management, which are mainly divided into macro and micro perspectives, among which the micro perspective is mainly analyzed from factors such as age, gender, income and marital status; the macro perspective mainly focuses on the influence of government's public policies on residents' happiness. This paper selects the influence of residents' socioeconomic status on happiness as the research direction, takes the 2015 China Integrated Social Survey data as the entry point, uses ordinary least squares (OLS) model and ordered probit model for regression, analyzes the influence of socio-economic status on residents' happiness, further enriches the research theory of residents' happiness and suggests corresponding countermeasures on this basis, and also selects CGSS2015 authoritative data, which has certain reference significance.

2. Literature review and research hypothesis

Socioeconomic status is an important concept of social stratification and has been widely applied in sociological and psychological research. He classified the socioeconomic status of rural elderly people in terms of three dimensions: income level, occupational status, and education level ^[1]. Yuan and Liang used

three dimensions, i.e., education, income, and occupation, to measure the influence of socioeconomic status on the health level of residents in their study ^[2]. In a study of subjective socioeconomic status on social achievement attribution, Wang proposed that subjective socioeconomic status is an individual's subjective perception of the social class he or she is in ^[3]. Therefore, in this study, this paper takes two dimensions of household income and educational attainment as the objective economic and social measures of residents, while residents' subjective socioeconomic status refers to the subjective perception of the economic and social class they are in. As early as 1954, the American social psychologist Leon Festinger put forward the theory of social comparison, in which residents, when comparing their actual acquisition with their perceived artificial standards, find themselves in a disadvantaged position when compared with each other, and then feel exploited, which further burst into various negative emotions and hinders the transformation of positive emotions and feelings such as sense of acquisition and happiness ^[4]. That is, residents' socioeconomic status has a great influence on their well-being; therefore, this paper proposes the hypothesis that socioeconomic status has a significant positive effect on residents' subjective well-being ^[5].

3. Materials and methods

3.1. Data sources

This study uses data from the 2015 China General Social Survey, a nationwide, comprehensive, and continuous large-scale social survey project jointly conducted by Renmin University of China and academic institutions across China. The survey data covers more than 10,000 households in 31 provinces (autonomous regions and municipalities directly under the central government). In this study, a total of 9,745 households were validly sampled after sample exclusion and missing values of relevant variables were processed.

3.2. Selection of variables

The explanatory variable in this paper is the subjective happiness of the residents using the question from the survey questionnaire, i.e., "In general, do you feel that you are happy in your life?" In the scale of the variable for measuring happiness, 1 and 5 represent "very unhappy" and "very happy," respectively. The larger the value is, the happier the residents. Although subjective happiness is only an individual's feeling, which is highly subjective and may differ from actual happiness, subjective variables are an integral part of social science disciplines and can reflect people's subjective spiritual level needs.

The core explanatory variable in this paper is socioeconomic status, which is divided into subjective socioeconomic status and objective socioeconomic status in this study, where objective socioeconomic status is mainly examined in two dimensions: education and income, while subjective socioeconomic is mainly reflected through residents' own feelings.

In order to ensure the rationality and scientificity of the study, three dimensions, i.e., personal characteristics, family characteristics, and social characteristics, are also selected as control variables in this study. Personal characteristics include gender, age, political outlook, marital status and health status; family characteristics mainly include the number of family members and family residence; social characteristics are mainly divided into social trust and social fairness ^[6-7].

3.3. Model construction

The three most used models for studies of well-being are multiple linear regression, ordered probit regression, and ordered logit regression ^[8]. When the explanatory variables of the study are similar to psychological rating index measures, the difference between the estimation results using ordered probit and OLS regression is small and the marginal effects of OLS regression are meaningful, and the marginal effects of ordered probit regression are not significant. Based on the OLS regression, we continued to use the

ordered probit model for regression and compared the regression results with the OLS regression to test the robustness of OLS regression. Since the ordered probit model treats happiness as an ordered variable, it is also necessary to use the latent variable happiness_i to derive the MLE, when it is below the threshold c_1 , residents feel unhappy ($\text{happiness}_i=1$); when higher than c_1 and less than c_2 , they feel less happy ($\text{happiness}_i=2$); when higher than c_2 and less than c_3 , they neither feel happy nor unhappy ($\text{happiness}_i=3$); when higher than c_3 and less than c_4 , residents feel relatively happy ($\text{happiness}_i=4$); when higher than c_4 , residents feel very happy ($\text{happiness}_i=5$).

In this paper, OLS is selected as the benchmark regression and the model is set as follows.

$$\begin{aligned} \text{Happiness}_i &= \alpha + \beta \text{social}_i + \gamma X_i + \varepsilon_i & (1) \\ & 1, \text{ if } \text{Happiness}_i^* \leq c_1 \\ & 2, \text{ if } c_1 < \text{Happiness}_i^* \leq c_2 \\ \text{Happiness}_i^* &= 3, \text{ if } c_2 < \text{Happiness}_i^* \leq c_3 \\ & 4, \text{ if } c_3 < \text{Happiness}_i^* \leq c_4 \\ & 5, \text{ if } \text{Happiness}_i^* > c_4 \end{aligned}$$

In equation (1), happiness_i represents the subjective well-being of the residents, social represents the socioeconomic status, X_i represents the control variables as personal characteristics, family characteristics and social characteristics, α , β and γ are the parameters to be estimated, and ε represents the random error term.

4. Results

The study of socioeconomic status on residents' subjective well-being is an important part of this paper, and the OLS regression and ordered probit regression in **Table 1** report the effect of socioeconomic status on residents' well-being. Model 1 reports the study of control variables on happiness, while Model 2 is based on Model 1 with objective socioeconomic status variables, and Model 3 is the full model with further subjective socioeconomic variables on the basis of Model 2.

Firstly, the regression results of the core explanatory variables were analyzed. As the regression results of the full model in **Table 1** show, the effects of educational attainment, total household income and socioeconomic status on residents' subjective well-being pass the significance test at the 1% level. Educational attainment on residents' subjective well-being becomes stronger as the number of years of education continues to increase. Total household income has a significant positive effect on residents' happiness as the higher the household income the stronger the happiness of residents. Residents' subjective socioeconomic status also has a strong positive effect on happiness.

Secondly, regression results of control variables were analyzed. In terms of personal characteristics, gender, age, marital status, political status, and health status were included in the regression model for analysis, and the regression results showed that personal characteristics had a significant effect on residents' subjective well-being and passed the significance test at the 1% level, where for gender, men's subjective well-being was higher than women's. Compared with non-party members, party members were happier. The effects of age and marital status on residents' subjective well-being are both significant and positive and pass the test at the 1% level. For family characteristics, the number of family members and the area where the family lives are included in the regression model. Among them, the effect of family size on happiness passed the 1% significance test, indicating that the higher the number of family members, the higher the happiness of residents. In contrast, there is no significant effect of family residence area on residents' subjective well-being, which indicates that there is no effect on residents' well-being regardless of where they live. In terms of social characteristics, social trust and social fairness both have significant

effects on residents' happiness and pass the significance test at the 1% level, which is consistent with existing studies.

Table 1. Model regression results

Variable	OLS			Order Probit		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Gender	-0.071***	-0.078***	-0.057***	-0.118***	-0.129***	-0.1***
	0.015	0.015	0.151	0.023	0.023	0.023
Year	0.002***	0.005***	0.004***	0.004***	0.007***	0.006***
	0.001	0.001	0.001	0.001	0.001	0.001
Member	0.148***	0.084***	0.058**	0.233***	0.144***	0.11***
	0.256	0.027	0.026	0.039	0.041	0.042
Marriage	0.1***	0.096***	0.076***	0.127***	0.124***	0.097***
	0.019	0.019	0.019	0.029	0.029	0.029
Health	0.186***	0.177***	0.157***	0.267***	0.256***	0.232***
	0.008	0.008	0.007	0.018	0.012	0.012
District	-0.085***	-0.007	0.004	-0.119***	-0.014	0.002
	0.016	0.018	0.018	0.024	0.028	0.028
Family	0.033***	0.03***	0.028***	0.052***	0.049***	0.048***
	0.005	0.006	0.005	0.009	0.009	0.009
Credibility	0.066***	0.062***	0.058***	0.1***	0.096***	0.091***
	0.008	0.008	0.008	0.126	0.013	0.013
Fair	0.161***	0.19***	0.167***	0.269***	0.269***	0.242***
	0.008	0.008	0.008	0.012	0.012	0.124
Edu		0.045***	0.027***		0.065***	0.039***
		0.008	0.008		0.012	0.012
Income		0.036***	0.024***		0.045***	0.029***
		0.005	0.005		0.007	0.007
Status			0.095***			0.14***
			0.005			0.007
Constant	2.135***	1.572***	1.535***			
	0.056	0.078	0.077			

Note: Clustering robust standard errors of regression variables in parentheses, *** P < 0.01, ** P < 0.05, * P < 0.1

Thirdly, in order to test the robustness of the benchmark model, this study chose to use the sequential probit model, and included all the explanatory variables, core explanatory variables and control variables in the model for regression analysis, and compared the regression results with the OLS regression results to test the robustness of the benchmark model, and the results showed that economic and social status has a positive and significant effect on residents' subjective well-being and pass the significance test at the 1% level. Thus, the higher the socioeconomic status, the happier the residents. As for the control variables, personal characteristics also have a significant effect on residents' subjective well-being and pass the significance test at 1% level; as for family characteristics, family size also passes the significance test at 1%, and family residence has no significant effect on well-being; social characteristics have a positive effect on residents' family well-being and pass the significance test at 1% level. The study on the positive effect of social characteristics on the happiness of households also passed the significance test at 1%. In summary, the regression results of ordered probit are consistent with the OLS regression results above, thus making the robustness of the model tested.

5. Conclusions

Using the 2015 China General Social Survey data, this study used an OLS regression model as the baseline regression model, followed by an ordered probit regression model for robustness analysis, and found that residents' socioeconomic status has a positive effect on subjective well-being and passes the significance test at the 1% level. In addition, other control variables also have an impact on residents' subjective well-being. Based on the above findings, in order to better improve the residents' happiness, this paper puts forward the following suggestions.

First, raise the income of resident households. An increase in income will enhance the objective socioeconomic status of residents, which in turn will enhance their sense of well-being. Departments at all levels should promote the implementation of economic policies to broaden the channels for residents to increase their incomes from a practical perspective. In addition, employment promotion actions can be implemented to provide high-quality jobs to drive residents' employment and increase their income. Second, relevant public services conducive to enhancing residents' subjective well-being should be improved. To ensure that the services can be put into practice, they can be included in the government's performance appraisal. By enhancing residents' subjective socioeconomic status, residents' well-being can then be improved. Next, the government should increase investment in education, encourage residents to receive higher education, and develop tailored information about further studies for different groups of people so that they can make informed decisions and the right options to continuously improve their educational attainment. The results of the study show that in-law status also affects the happiness of residents' families, and the happiness of married people with good families will also increase. It is necessary to rectify the bad marriage practices so that more single and young people of the right age would gradually accept marriage so as to improve the happiness of residents as a whole.

Disclosure statement

The author declares no conflict of interest.

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