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To cite this article: Anqi Gu 2019 *IOP Conf. Ser.: Mater. Sci. Eng.* **490** 062078

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Human Capital, Government Policy and Reservoir Project Resettlement Income

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Abstract: This paper analyzes the mechanism, namely, the human capital and the government's policy, on the migrant family's equivalent per capita income. Based on the survey data of 328 rural resettlements, this paper makes an empirical analysis by using linear regression model. The results show that the length of education has no significant effect; the family upbringing coefficient has a negative effect; the average age of labor force has a V-shaped relationship with income; there is a significant positive correlation between immigration policy and government subsidy, but the other policy variables have no significant impact on income.

1. Introduce

As a result of the uneven distribution of water resources and rapid economic development, the Chinese government has completed 98,460 reservoirs by 2016, resulting in more than 25 million reservoir resettlements. [1] The South-to-North Water Diversion Project is the largest water diversion project in the world. The project is composed of three routes from the east, the middle and the west. The project brings about large-scale population migration. The resettlement cannot decide the migration direction independently. It must be planned and arranged by the state. Relocation will have a series of social effects on migrants, not only changing the physical assets of migrants. Among these effects, immigration income is most important. The purpose of this paper is to conduct a comprehensive empirical study on the influencing factors of reservoir immigrants' income from the perspective of income acquisition mechanism.

2. Literature review

Some economists represented by Becker link human capital with personal income, emphasizing the important role of education and labor skills in raising income. [2] China is a government dominated society, and the national policy has a significant impact on the individual. [3] The Chinese government's resettlement policy focuses on providing enough compensation for resettlement. According to the different stages of resettlement, the resettlement policy is mainly divided into two aspects: early compensation and late support.

3. Data and methods

3.1. Data Sources

In this paper, a overall sample survey was conducted on all 15-64 year old resettlement which had agricultural account in the LRC village. The effective sample of resettlement was 328 households and 1680 persons.



3.2. Variables

3.2.1. Dependent Variable

Family size and population structure will have an impact on family income. In order to guarantee the linearity, the logarithm is taken as the dependent variable.

3.2.2. Independent Variables

Human Capital: The average number of years of education for family labors is as an indicator of Education. The family population burden coefficient, also known as the dependency coefficient, refers to the ratio of the number of non-working population to the number of the labor in the family.

Government Resettlement Policy: The family amount of funds for the support and subsidy of the government refer to the logarithm of agricultural subsidies and the resettlement post support fund. Government employment support is set as virtual variable. If the resettlement took part in the government training or received employment information, the variable assignment is 1, otherwise 0. The variable of the post support program by government is set as virtual variable. The assignment is 1 if resettlement participated in the post support program, while no one is 0.

Table 1. Variables description

Variables	Indicators	2015	
		Mean	Standard deviation
income	Logarithm of equivalent per capita income of the family	9.06	0.851
	Human capital		
education	Average years of schooling of household laborers	8.01	1.159
Dependency coefficient	The ratio of non-laborers' number and laborers' number in family	0.647	0.968
	Average age of household laborers	40.35	7.116
age	The square of average age of household laborers/100	16.79	6.081
	Government resettlement policy		
Resettlement compensation	The logarithm of the equivalent per capita compensation of the family	10.27	0.269
Government subsidy	The logarithm of the equivalent per capita capital of the family (post direct subsidy and agricultural subsidy)	6.91	0.143
post support project	Participate in the post support project	0.19	0.390
Employment support	Access to training or employment information	0.04	0.212

3.3. Analysis model

Because the dependent variable is continuous, the multiple linear regression analysis is adopted to investigate the influence of each independent variable on the dependent variable.

$$Y = \alpha + \beta_k X_k + \varepsilon \quad (1)$$

Y is dependent variable. X_k is independent variable. B_k is the parameter of the undetermined model. The α is intercept, and the ε is unobservable random error.

4. Results

In table 2, the standard coefficients of independent variables and model goodness of fit statistics are listed. In model 1, the control variables explain about 5.4% of the income variance (adjusted $R^2=0.054$). From the model, and the explanatory power is strong (adjusted $R^2=0.423$). The number of years of laborers' education has no significant impact on income. The negative effect of family dependency ratio is significant, that is, the more the number of non-laborers in family and the lower the family income. The average age of laborers in family presents a "V curve". This indicates that the younger the family laborers' age is, the higher the family income is. However, a small number of middle-aged and elderly people have higher income because of their abundant economic capital. The government support fund has a significant negative effect on family income. Government compensation, post support program and resettlement training have no significant effect.

Table 2. Analysis of LRC village resettlement income stratified regression model

Independent variables	Standardized coefficient
Average years of schooling of household laborers	0.059
The ratio of non-laborers' number and laborers' number in family	-0.137*
The average age of laborers in family	-0.744***
The square of average age of laborers in family /100	0.637*
The logarithm of the equivalent per capita compensation of the family	-0.206***
The logarithm of the equivalent per capita capital of the family	-0.029
Participate in the post support project	-0.034
Access to training or employment information	-0.010
Adjusted R^2	0.423

Note: significant levels: * $p \leq 0.05$, ** $p \leq 0.01$, *** $p \leq 0.005$, **** $p \leq 0.000$.

5. Conclusion

The concrete conclusions are as follows: (1) Resettlement village is changing from the traditional agricultural economy to migrant working economy, and the human capital advantage of young resettlement is showing. (2) Government resettlement policy has the smallest explanatory power for the income gap of resettlement. Therefore, the effective solution to improve resettlement income is, the government should reform the reservoir benefit sharing mechanism, improve the resettlement compensation standards, strengthen basic education investment, accurate employment guidance for resettlement, guide rational employment, provide low interest loans for resettlement, and increase communication of resettlement with local residents. These measures can improve the human capital, social capital, occupational status and resettlement funds, and thus promote the increase of the equivalent income of resettlement.

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