The Influence of Marriage Matching on Intergenerational Income Transmission

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Abstract: The income gap among residents in China is gradually widening, which has become one of the problems that have troubled Chinese social and economic development in recent years. In this paper, CLDS and CFPS databases are used to construct the intergenerational income flow model, trying to explain the mechanism of intergenerational transmission from the microscopic perspective of marriage matching. The research shows that the socioeconomic status of the father has a significant positive impact on the income of the offspring and their spouses. The intergenerational mobility in the western region is higher than that in the eastern region, but the gap between the east and the west is not large in the intergenerational transmission effect of marriage matching.

1 Literature Review

1.1 Research on Intergenerational Mobility and Family Income

Influenced by traditional ideas, Chinese marriage market has this remarkable characteristic of being suitable for the family. Jianlin Niu [1] found that education is the main factor affecting marriage matching, and the difference in the educational years of husband and wife might reduce intergenerational mobility and aggravate the inequality of family income. Greenwood et al.[2] pointed out that the higher the degree of marriage matching, the lower the intergenerational mobility, thus aggravating the income gap between families and further evolving into a serious class differentiation.

In recent years, the income gap among residents in our country has continued to widen, and the social hierarchy has solidified obviously. Income distribution has gradually become the focus of people's attention. Chunbing Xing [3] analyzed the intergenerational correlation of non-agricultural employment opportunities for rural families. He believed that this correlation was partly caused by family background characteristics and was also transmitted to a certain extent through human capital investment. Lian Yu [4] analyzed the phenomenon of bachelors nest in 1980 and families with many children before the 1980s from the perspective of marriage ties, revealing the influence of family structure and family integrity on marriage opportunities. Wenqiong Chen et al [5]. also elaborated on the marital competitiveness, believing that the marital competitiveness is positively related to agricultural surplus.

1.2 Research on Research Methods of Intergenerational Income Transfer

At present, there are mainly two methods to study the intergenerational transmission effect of marriage matching: one is the linear regression model between the children income and the fathers permanent income adopted by Chadwick and Solon[6] ; The second is the surname identification method adopted by olivetti and paserman[7] Limited by the availability of data, this paper uses the first method for reference to study the intergenerational income mobility of Chinese parents—offspring spouses.

2 Data and Models

2.1 Data Sources and Pretreatment

This paper uses the databases of China Labor Force Dynamic Survey in 2016 and China Family Tracking Survey in 2010: one is the family resources of the father, the other is the education level,

income and age of the children and their spouses. This paper first converts the occupational codes in the data into the international occupational socio-economic status index (ISEI) , then calculates the occupational prestige score (siops) , reflects the socio-economic status of each occupation with the weighted average of its income level and educational level.

Table 1. Selection and Interpretation of Key Variables

Indicators	Key variable	Variable code
Father generation	International Standard Prestige Score	siops
	Degree of education	Education
	Age	Age_ elder
filial generation	Individual Income of Children	Income_ offspring
	Age	Age_ offspring
Child spouse	Individual Income of Child Spouse	Income_ spouse
	Age	Age_ spouse

Table 2. Key Variable Statistics

Sample	East		West	
Statistical indicators	Mean value	Standard deviation	Mean value	Standard deviation
Log (Income_offspring)	10.694	0.859	9.890	1.120
Log(Income_spouse)	10.514	1.023	9.898	1.148
Log(siops)	3.720	0.224	3.681	0.168
Age_offspring	36.169	5.087	35.957	5.031
Age_spouse	35.578	4.867	35.385	5.240
Age_elder	63.108	8.840	65.257	7.846
Education	0.783	0.640	0.415	0.583

This paper makes a more detailed statistical analysis on the key variables of the model, including the age and income factors of the children and their spouses, the age, income factors and education level of the parents. As shown in Table 2 the age mean of the offspring sample and the offspring spouse sample in the east are higher than the age mean of the offspring sample and the offspring spouse sample in the west. The educational level of the eastern fathers is significantly higher than that of the western fathers, which indicates that the distribution of educational resources in the eastern and western regions is not balanced.

2.2 Model Design

Based on the marriage matching and intergenerational mobility models of Lam, Lan Ding and Yangyang Qi [9], this paper comprehensively analyzes the influence of the social status and economic level of the father generation on the personal income of the offspring spouse, revealing the important role of marriage matching in the intergenerational transmission process. Suppose parents invest human capital in their offspring in order to maximize family income. The formula for determining the income of children adopted in this paper is as follows:

$$\log Income\_offspring = \beta_0 + \beta_1 \log siops + \beta_2 \log Age\_elder + \beta_3 \log Age\_offspring + \varepsilon \quad (1)$$

The intergenerational transmission effect of marriage matching is reflected by estimating the response degree of the offspring spouse to the socioeconomic status of the father. The model is expressed as follows:

$$\log Income\_spouse = \gamma_0 + \gamma_1 \log siops + \gamma_2 Age\_elder + \gamma_3 Age\_spouse + \varepsilon \quad (2)$$

3 Empirical Results and Analysis

Table 3. Results of Intergenerational Mobility

Variable	log (Child Personal Income)		log (Personal Income of Child Spouse)	
	Eastern region	Western region	Eastern region	Western region
Log(siops)	1.399** (0.014)	0.739** (0.021)	1.020* (0.057)	0.913** (0.029)
Log(Age_offspring)	Including	Including	Including	Including
Log(Age_elder)	Including	Including	Including	Including
Constant term	Including	Including	Including	Including
observed value	88	348	88	348
R-squared	0.185	0.044	0.128	0.090

Note: The brackets refer to robust standard errors, the same below. ***p<0.01, **p<0.05, *p<0.1, the same below.

3.1 Intergenerational Mobility Estimation

This paper estimates the intergenerational mobility coefficient in eastern and western China respectively, which is shown by table 3 and results. The characteristics of intergenerational income mobility in China are as follows.

The intergenerational mobility coefficient in the eastern region of China is higher than that in the western region, which indicates that the intergenerational mobility in the eastern region is weaker and the vertical inequality is more serious. From a dynamic perspective, the vertical inequality determines the change trend of horizontal inequality. In the long run, the decrease of intergenerational mobility will lead to the more serious horizontal income inequality and the higher Gini coefficient in the eastern and western regions of China.

In 2016, the intergenerational mobility coefficient in the eastern region is about 1.4 which indicates that for every 1% increase in the socio-economic status of the father and 1.4% increase in the personal income of the children under the same other factors, which indicates that the fathers' income in the eastern region of China has a higher impact on the income of the children, higher intergenerational transmission and weaker intergenerational mobility.

At the same time, the elasticity coefficient of intergenerational income in the western region is about 0.74,which indicates that for every 1% increase in the socioeconomic status of the father, the personal income of the child will increase 0.74%, and the elasticity coefficient is only about 1/2 of that in the eastern region. This shows that the inequality of vertical intergenerational transmission intensifies the horizontal widening of the income gap between the eastern and western regions.

3. 2 The Marriage Matching Mechanism of Intergenerational Transmission

Based on the estimation of intergenerational income mobility, this paper constructs a model (2) to estimate the response degree of the offspring spouse to the fathers' socio-economic place, so as to test the important role of marriage matching in intergenerational transmission. In fact, the evidence results are shown in Table 3.

The income of the children's spouse is significantly positively affected by the socioeconomic status of the father. In the western region, the coefficient of intergenerational mobility of the parents is 0.92, and the socioeconomic status of the parents is also significantly positively correlated with the income of the children's spouses, which indicates that the socioeconomic status of the parents can act on the income of the children's spouses through the marriage matching mechanism. The reason why the father can have a significant positive impact on the income level of the children's spouses is that Chinese marriage market follows the traditional principles of "Perfect March". The higher the fathers income level, the higher the investment in the offsprings human capital, making

the offsprings personal income higher.

Different from the existing research perspective, this paper divides the country into four economic regions of the east, middle, west and northeast according to the level of economic development and its geographical location, and pays more attention to the issue of income equity between the east and west regions. By comparing the paternal generation of the eastern and western plates—the intergenerational mobility coefficient of the spouses of the children, we can see that the people in the eastern region pay more attention to the investment of the children. However, driven by the Chinese peoples deep-rooted traditional concept of marriage, there is a problem of attaching importance to marriage matching in any economic sector.

3.3 Robustness Test

The social and economic status of the father will affect the individual income, but the individual income will in turn have a certain impact on the social and economic status of the father and mother. In addition, some factors such as family connections and genetic inheritance also play an important role. In this regard, this paper introduces education level as a tool variable of fathers socioeconomic status to analyze, and further tests the stability of regression results.

In this paper, the income of the children and the income of the children's spouses are still taken as the explanatory variables, and the two economic sectors are still divided into the east and the west. Then, the dummy variable of the education level of the father is introduced into the model as the explanatory variable, which acts as the proxy variable of the social and economic status of the father, further explaining the influence of the learning ability of the father on the income of the children and their spouses. The output results are shown in Table 4.

Table 4. 2016 Estimate of Influence of Parents Education Level on Income of Children and Their Spouses in Year

Variable	log (Child Personal Income)		log (Personal Income of Child Spouse)	
	Eastern region	Western region	Eastern region	Western region
Education	0.391** (0.028)	0.446*** (0.001)	0.314* (0.090)	0.387*** (0.003)
Age factor	Including	Including	Including	Including
Constant term	Including	Including	Including	Including
observed value	88	348	88	348
R-squared	0.138	0.088	0.082	0.098

The education level of the parents has a significant positive correlation with the personal income of the children. Other things being equal, the personal income level of the east and west children may increase by 0.39% and 0.45% respectively for each level of education of the father. This is probably because the higher the education level of the fathers' generation, the stronger the family income ability and the higher the social and economic status, which can improve the human capital investment of the sons generation and enhance the competitiveness of the sons human capital market.

The educational level of the parent has a significant positive correlation with the income level of the child's spouse. Other things being equal, the personal income level of the children's spouses in the east and west may increase by 0.31% and 0.39% respectively for every 1 level of education of the parents. The reason is that the higher the educational level of the parent, the more human capital the child may receive, making the child more capable of earning, and the more likely it is to find a spouse matching its economic ability, thus bringing more significant positive impact on the child's spouses personal income.

The coefficients of core explanatory variables and education are significantly effective and basically consistent with the previous empirical analysis results, indicating that the conclusion of this paper is relatively stable.

Summary

Marriage market takes marriage matching as one of the main principles, and the income matching of children and their spouses plays an important role in the intergenerational transmission, which provides a micro basis for the study of the income gap between regions in China. After analysis, the main conclusions are as follows.

Firstly, the intergenerational mobility in eastern China is obviously lower than that in western China, and the degree of vertical inequality is serious. The results of the regression in this article are 1.4 and 0.74 respectively in the east and west, and the elasticity coefficient in the west is only about 1/2 of that in the east. This shows that the inequality of vertical intergenerational transmission intensifies the horizontal widening of the income gap in the east and west.

Secondly, this paper constructs a model of the intergenerational income flow of the parents and the children's spouses, which is used to measure the influence of the social and economic status of the parents on the income of the children's spouses, and then to explain the intergenerational transmission effect of marriage matching. The empirical results show that in 2016 and 2016, the intergenerational income flow coefficients of the parents in the eastern and western regions are 1.02 and 0.9 respectively. This shows that there is a significant positive correlation between the socioeconomic status of the father and the income of the sons spouse. No matter which economic sector, it is deeply influenced by the traditional Chinese concept of marriage.

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