

# Research On the Correlation Between Family Capital and The Highest Educational Level of Children——Analysis Based on China Family Panel Studies (CFPS) Data

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**Abstract.** Based on Chinese household tracking survey data, through multiple regression models, this paper studies the connection between family capital and children's highest education level. There is relatively comprehensive research on this topic both domestically and internationally. However, China has proposed a "double reduction" policy. The relevant research under this policy is not perfect. Based on this current situation, the authors conduct this study. There are seven findings in the study. Firstly, family background has a significant positive impact on children's educational qualifications. Secondly, the number of books collected is directly proportional to the length of education a child has received. Thirdly, how many years a child can attend school is influenced significantly and positively by how much money each person in a family earns on average. Fourthly, the length of a child's schooling is significantly impacted negatively by the number of the household population. Fifthly, the father's education years have a considerable favorable impact on the children's schooling. Sixthly, the number of years a mother can attend school also has a considerable favorable impact on the children's schooling. Seventhly, registration of urban households has a substantial advantageous effect on children's learning years.

**Keywords:** family capital; children's highest education level; per capita household income; father's education years; mothers' education years.

## 1. Introduction

From ancient times to the present, the Chinese people have attached great importance to education, and the ancients set up the imperial examination system to promote educational progress. Nowadays, China also promotes the healthy development of education by forcing them to complete primary and secondary school courses, developing and improving the college entrance examination system, and introducing the "double reduction" policy. In ancient times, large families often had easier access to educational resources than poor families, and even some dynasties stipulated that the sons of merchants could not take part in the imperial examinations, which shows that family capital had a great influence on the education of the offspring in ancient times, and family capital also has a great influence on the education of the offspring in contemporary times. The theory of family capital stems from the 1960s research findings of American scholar Coleman, who believed that family background influences children's academic and future development seriously and is the root of educational inequality and even the reproduction of social inequality, which has a greater impact than that of schools [1].

On July 24, 2021, The General Office of the Communist Party of China and the General Office of the State Council issued *Opinions on Further Reducing the Burden of Homework on Students in Compulsory Education and the Burden of Out-of-School Training* [2]. However, the competition for educational resources has not declined in the slightest, but rather intensified, with parents trying to get their children into private schools with high local advancement rates and hiring one-on-one tutors for their children. They focus on how school affects children's grades, while neglecting a more critical factor: the family environment. The importance of family wealth in learning for kids should not be

underestimated. This study will examine the various ways that family affects children's academic development in order to make recommendations for the future growth of Chinese education.

## 2. Literature Review

The favorable interaction between parents' educational backgrounds and their kids' degrees of education can be explained by a number of theoretical frameworks, among which the most influential theories include the intergenerational spillover effect of human capital in neoclassical economics, the family production model, and the social capital theory in economic sociology [3-5]. One of the important concepts of social capital theory is family capital [1]. Bourdieu thinks that social capital is "a collection of actual or potential resources that are inseparable from the possession of certain long-lasting relationship networks. This network is not only well-known and recognized by everyone, but also an institutionalized network. This network provides collective capital for each participating member and provides them with credentials to win reputation" [5].

The education level of children is a closely watched issue for Chinese parents. With China's economy expanding consistently and quickly, the trend of social stratification is becoming increasingly apparent, and the gap in family capital among different social classes is also widening. Family capital is an important factor that affects children's access to higher education resources, closely related to the issue of educational equity in China. The pursuit of educational equity is the mainstream value orientation of social development in China, especially the fairness of higher education resources, on which public opinion is focused. The proposal of the "Outline of the National Medium- and Long-Term Education Reform and Development Plan (2010-2020)" guides the attention of public opinion to the national level [6]. The fundamental unit of society is the family, and elements of family also affect kids' personal growth seriously. Therefore, research about the impact of family capital on children's highest education level has certain practical and theoretical significance and can provide suggestions for China to formulate policies to promote education equity.

In China, there are many studies on how family factors affect children's degrees of education. Congbin Guo and Weifang Min study what are the effects of family wealth and literary literacy on students' access to education opportunities and believe that the dominating socioeconomic class with the greatest proportion of family cultural and economic capital, whose children primarily attend college; kids from impoverished social strata get mostly secondary and primary education [7]. Fengliang Li and Longlong Hou study what impact a family's educational background has on the quantity and quality of higher education received by their children, as well as the impact of parental education background on children's learning and social activities [8]. Using CFPS data, Xiande Li and Haixia Lu investigate the association between chance to superior education and family wealth and use a binary logistic regression model to analyze how family background affects a person's chance to access higher education possibilities from three dimensions: cultural capital, social capital, and economic capital. They point out that the wealth a family possesses does not seriously affect the academic performance of the next generation [9]. Jin Liu conducts research on what is the connection between family social background and higher education, pointing out that family social background has an important impact on participation in higher education, especially in the competition for higher education enrollment opportunities and social market employment opportunities [10]. The research of these scholars provides a practical and theoretical basis for the Chinese government to formulate policies to promote educational equity.

After reading a large amount of relevant literature, the authors find that Most academics concur that parents' economic strength, cultural background and social class significantly enhance children's educational opportunities. Regarding family capital, it includes multiple factors, including economic capital, cultural capital, social capital, and political capital. Scholars such as Congbin Guo, Weifang Min, Xiande Li, and Haixia Lu choose to analyze from different factors, including parents' education level, family economic status, and parents' occupational class, whose frequency of occurrence is high [7, 9]. After research, scholars find that parents' knowledge level positively affects their children's

learning status, in the literature of Zeyun Liu and Qingqing Yuan, the authors learn that the comprehensive education level of parents has a greater impact on their children than the education level of one parent. This is an innovative point [11]. Experts have different opinions on the effect of parental income on kids' educational achievements. Scholars Zhenzhong Jin, Binjian Yan, and Liang Wang believe that the impact of family economic conditions on children's educational expectations is negative, indicating that favorable family conditions may promote children's motivation to pursue higher education levels [12]. However, scholars Qian Yang and Yue Sun believe that the impact of family economic conditions on children's education is changing, they studied data from 2007 and 2020, which shows that children's educational levels suffered harm by family financial circumstances in 2007, while in 2020, the opposite was true [13]. This reflects the awakening of crisis awareness among advantageous families and the competition for higher education resources [13]. The occupational class of parents is positively correlated with the learning of the next generation. In addition, scholars also study the relationship between belonging to elite families, book collection, and urban, rural areas, along with the political outlook of parents and their children's education. Research shows that the more books a family has, the better their children's learning [12]. Regarding urban-rural issues, Zeyun Liu and Qingqing Yuan believe that rural backgrounds are more likely to receive educational returns [11]. However, scholars Qian Yang and Yue Sun believe that parents living in cities have a greater chance of their children entering key undergraduate universities and the political outlook of parents has little impact on their children's education [13].

These are all direct impacts of family capital on kids' education. Scholars such as Zhenzhong Jin analyze the relationship between family capital and students' education expectations, using students' educational expectations as a mediator [12]. They believe that students' educational expectations are positively correlated with their education level [12]. The higher the educational expectations, the clearer the goals, and the more they will strive for them, and thus achieve their own goals. Through structural equation modeling, they demonstrate that family background has a large beneficial impact on students' educational expectations, as well as a strong beneficial impact on school quality [12].

In conclusion, family wealth significantly enhances children's educational opportunities. Whether in terms of economic capital or cultural capital, people with better family backgrounds have innate advantages. They are more likely to obtain higher education than people with poorer family backgrounds, which is not conducive to social mobility and may even lead to class solidification, which has a negative impact on the atmosphere and vitality of society and reduces the enthusiasm of students.

From the research of the above scholars, it can also be found that the comprehensive factors of family have a good impact on children's access to the highest level of education. The Chinese government and social organizations should compensate the "vulnerable groups" with insufficient family capital for educational opportunities, improve the overall asset level of families, reduce the intra-class circulation of education levels, and learn from relevant advanced foreign experiences to promote the fairness of educational opportunities in China.

According to the above research, experts' perspectives on the relationship between family conditions and the education level of the following generation are not uniform. Currently, there are a lot of studies being done on how family background affects children's higher education, but there aren't as many studies as possible on secondary and primary schooling. The proposal of the "double reduction" policy may lead to changes in the impact of family capital on the highest level of education for children, which requires further research by scholars.

### **3. Research Hypothesis**

People can focus more on education as a result of the national economy's rapid growth as their material needs are gradually met. However, so as for the economy to grow sustainably, the abilities that education produces are also crucial. So education has become a hot topic in today's society. Schools play an important role in the development of education, but people overlook the important

factor of family capital. Family capital is a larger concept, which includes cultural capital, social capital, economic capital, political capital and other dimensions, through which it forms a tangible or intangible influence on children's future education. In the increasingly tense battle for educational resources, strong family capital can often provide more and better educational resources for the offspring. Before the release of the "double decrease" policy, parents improved their children's academic performance through extracurricular tutorial classes, one-on-one tutoring, etc., which often required a certain degree of economic support. Family capital also affects the amount of time parents spend tutoring their children, which in turn has an impact on children's education. In addition to the material aspect, family capital also includes the cultural aspect, and a good family learning atmosphere will form a subtle influence on children, which will have a long-lasting impact on their education. This study will enrich and improve the empirical research on the link between family assets and the education of children. This study will also provide suggestions for the development of children's education. It has been shown that family capital has a significant positive effect on children's education or returns on education, and in order to confirm and supplement previous studies, this study proposes the hypothesis:

Under the control of other factors, family capital has a remarkable effect on children's future performance in school.

## 4. Research Design

### 4.1. Concept Definition

Family capital is an important element of social capital. Pierre Bourdieu, a famous French sociologist, first systematically explained social capital, which he regarded as "a collection of actual or potential resources that are more or less institutionalized with a persistent network of mutually defaulted or acknowledged relationships [3]."

There are three types of family capital: family economic capital, family social capital, and family cultural capital. The family economic capital studied in this paper is mainly based on the logarithm of household per capita income as the main indicator. The social capital is mainly analyzed from the aspect of the family's social status such as: whether or not it is an urban hukou, and the cultural capital mainly includes the logarithmic value of the family's book collection, and the parents' years of education.

### 4.2. Research Methods

The research methodology for this article is multiple regression model.

$$Y_i = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 \dots + \beta_n X_n + \mu_i$$

Y is the dependent variable: children's years of schooling

X is the independent variable

X<sub>1</sub> is the logarithm of household per capita income, X<sub>2</sub> is the logarithm of household book collection, X<sub>3</sub> is whether or not the household is an urban household, X<sub>4</sub> is the number of years of education of the father, X<sub>5</sub> is the number of years of education of the mother, and X<sub>6</sub> is the number of household members.

$\mu$  is the intercept.

### 4.3. Variables and Data

#### 4.3.1 Variables

The dependent variable in this paper is children's future educational attainment, using data on individuals' highest educational attainment entered from the China Family Panel Studies.

The core independent variable in this paper is family capital.

Family capital is measured in five ways: first, family income, is measured as the logarithm of per capita family income. The second is the father's years of education, which is categorized into junior

high school and below, senior high school education (high school and special secondary schools), and higher education (junior college and above). Third, the mother's years of education is categorized into junior high school and below, senior high school education (high school and special secondary schools), and higher education ((junior college and above). Fourth is the logarithmic value of household book collection. Fifth is the urban-rural context.

#### 4.3.2 Data

This paper makes use of data from the 2020 China Family Panel Studies, which were carried out by Peking University's China Social Science Survey Center (ISSS). The initiative, which is financed by Peking University and the National Natural Foundation Committee of China, employs computer-aided investigation methodologies for carrying out interviews in order to suit diverse design objectives, increase the efficiency of interview, and maintain data quality.

The data pertains to people who meet the project's interview requirements and reside in one of the 25 provinces, municipalities, or autonomous regions of China (excluding Hong Kong, Macao, Taiwan, the Xinjiang Uygur Autonomous Region, Tibet Autonomous Region, Qinghai Province, Inner Mongolia Autonomous Region, Ningxia Hui Autonomous Region, or Hainan Province).

## 5. Results of the Study

**Table 1.** The result of multiple regression model

VARIABLES	VARIABLES	Children's years of schooling
the logarithm of household book collection	ln_fs8	0.147***
		(0.013)
logarithm of household per capita income	ln_fincome	0.742***
		(0.028)
the number of household members	familysize20	-0.169***
		(0.012)
the number of years of education of the father	fa_s	0.072***
		(0.006)
the number of years of education of the mother	mo_s	0.030***
		(0.006)
whether or not the household is an urban household	city	1.289***
		(0.066)
Constant	Constant	2.533***
		(0.288)
Observations	Observations	17,280
R-squared	R-squared	0.1746
F pvalue	F pvalue	0
r2_a	r2_a	0.174
F	F	588.7

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

The value of regression coefficient of the logarithmic value of the family book collection is 0.147 which means that the logarithm of family book collection is directly proportional to the education years of children (see Table 1).

The value of the regression coefficient of the logarithmic of per capita income of the family is 0.742 which means that the average income of each person in the family has a notable positive effect on the number of years of schooling of the children.

The regression coefficient value of family size is -0.169 which means that family size has a significant negative effect on children's schooling.

The regression coefficient value of father's years of schooling is 0.072 which means that the education level of fathers is beneficial for the education of children.

The regression coefficient value of mother's education is 0.030 which means that the education level of fathers is good for the education of children.

The value of the regression coefficient of whether the household is urban or not is 1.289 which means that whether the household is urban or not has a powerful helpful impact on children's learning.

## **6. Discussion**

### **6.1. The Economic capital of a Family Has an Essential Effect on Children's Future Performance in School**

Family economic capital is represented by the logarithmic value of the average income of each person in the family. And there is a prominent positive correlation between family economic capital and the highest future education level of children. In other words, the wealthier the family, the more likely it is that the children will achieve a higher level of education in the future. Therefore, the government ought to take corresponding measures to compensate for the educational opportunities of the disadvantaged groups with less family economic capital, especially for five-guarantee households, poor households and low-income households.

### **6.2. The Social Capital of a Family Has an Enormous Effect on Children's Future Success in School**

Family's social capital represented by whether it is an urban hukou has a significant strong beneficial influence on children's highest future academic accomplishment. In other words, families with non-agricultural hukou are more likely than those with agricultural hukou to have children who will achieve higher levels of education in the future. Therefore, the government should formulate appropriate policies to compensate for the educational opportunities of agricultural households, especially those located in remote rural and mountainous areas.

### **6.3. The Cultural Capital of the Family Has an Important Effect on the Future Academic Achievement of Children**

The cultural capital of a family, represented by the logarithmic value of the family's book collection and how many years their parents attend school, has a strong advantageous impact on children's future learning outcomes. In other words, the higher the education of both parents, the higher the likelihood that their children will achieve higher levels of education in the future. The richer the family's book collection, the greater the likelihood that the children will achieve higher levels of education in the future. Therefore, in order to achieve equalization of educational opportunities, the first step is to improve the overall level of family cultural capital. Compared with the more developed countries in the West, the total amount of family cultural assets in China is low, and the improvement of family cultural assets is a long-term accumulation process, which is difficult to be achieved overnight. Thus, in the process of continuously promoting equalization of educational opportunities, the government need to pay attention to improving the overall level of education. In particular, the Government should emphasize the development and extension of compulsory education, thereby achieving a general increase in the cultural capital of families.

## **7. Conclusion**

This study mainly explores the impact of comprehensive family factors on children's educational level. This study finds that comprehensive family factors greatly strengthen children's educational qualifications, but different factors in family capital have varying degrees of impact on children's education. The order of impact from large to small is whether it is an urban household registration, family economic background, family population size, family book collection, father's education years,

mother's education years; from the perspective of impact direction: family population size is not conducive to children's education, while other factors have a positive impact.

From the results of this study, it can be seen that there is an unfair phenomenon in education: the richer the family capital, the greater the opportunity for children to receive higher education. This is harmful to personal and social development. Firstly, this is unfair to children from disadvantaged backgrounds. They put in more effort than children from wealthy families but did not receive corresponding rewards. Secondly, this may cause dissatisfaction among low-income families, which in turn is detrimental to social stability.

There are shortcomings in this study. Firstly, the study solely looked at how family environment affects children's future educational opportunities, without delving into the underlying reasons. The second is that the "double reduction" policy was proposed in 2021, and there is limited data available. In future research, data should be collected based on the social conditions at that time. Ensure that the data is timely, comprehensive, and targeted.

## Authors Contribution

All the authors contributed equally, and their names were listed in alphabetical order.

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